

Chapter 2

Implementation of Crop Insurance Schemes in West Bengal

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AGRICULTURE DEPARTMENT

2.1 Introduction

To adequately indemnify the farmers from crop losses due to unforeseen calamities, viz. flood, cyclone, hailstorm, drought *etc.*, and to keep them motivated towards farming, Government of India (GoI) introduced (February 2016) a crop insurance scheme, viz. Pradhan Mantri Fasal Bima Yojana (PMFBY) replacing the National Agricultural Insurance Scheme (NAIS)¹¹ which was started in 1999. As per the guidelines of PMFBY, 1.5 *per cent* to 5 *per cent* of sum insured was to be borne by the Farmer and balance share of premium was to be borne by GoI and State equally.

Agriculture is the main source of livelihood of about 70 *per cent* population of West Bengal. There are about 72 lakh operational holdings in the State, of which 96 *per cent* belongs to the small and marginal category¹². The cultivable area is about 56 lakh hectare (LHa), out of which 52 LHa is under the plough. West Bengal is the leading producer of paddy and jute and second largest producer of potato in the country. The Government of West Bengal participated in the scheme from Kharif (July to October) 2016 crop season. In the State, Government of West Bengal decided¹³ to pay the farmers' share of insurance premium as additional subsidy. The State Government continued with the GoI scheme upto December 2018 (*i.e.* middle of Rabi (October to March) 2018-19 crop season). Thereafter, the State implemented the same scheme upto January 2019 with 100 *per cent* State assistance. In February 2019, the State Government introduced 'Bangla Shasya Bima' (BSB), a 100 *per cent* State sponsored scheme. Under the BSB scheme, premium for all crops except potato and sugarcane were to be borne by the Government, whereas for potato and sugarcane, farmer was to bear upto 4.85 *per cent*¹⁴ of Sum Insured.

2.1.1 Coverage of the scheme

For implementation of the scheme, the coverage area has been divided into smaller pre-defined areas called Insurance Units (IU). All farmers including sharecroppers and tenant farmers growing the notified crops (four crops¹⁵ during Kharif season and 11 to 12 crops¹⁶ during Rabi season) in the notified areas (IU) were eligible for coverage under the schemes. The scheme envisaged

¹¹ Government of India introduced Comprehensive Crop Insurance Scheme (CCIS) since 1985-86 with General Insurance Corporation of India as the Implementing Agency. In 1999, the CCIS was replaced by National Agricultural Insurance Scheme (NAIS)

¹² The different categories of farmers in terms of land holdings in West Bengal are (1) marginal (0.5 to 1 ha) (2) small (1-2 ha) (3) semi medium (2-4 ha) (4) medium (4-10 ha) and (5) large (10 ha & above)

¹³ Government of West Bengal decided to bear the farmers' share from 2012-13 in addition to its own share.

¹⁴ Maximum insurance charges payable by farmers for potato and sugarcane was 4.85 *per cent* of the Sum Insured or the actuarial rate whichever is less. Remaining portion of premium if any was to be paid by the State.

¹⁵ Aush Paddy, Aman Paddy, Jute & Maize

¹⁶ Potato, wheat, mustard, Maize, Lentil (Mug), Gram, Groundnut, Sugarcane, *etc.*

providing indemnity to small and marginal farmers through insurance coverage against:

- **Prevented Sowing/ Planting Risk** caused by deficit rainfall or adverse seasonal conditions prior to/ during sowing season.
- **Standing Crop** (end of season) *i.e.*, yield losses due to non-preventable risks, viz., Drought, Dry spells, Flood, Inundation, Pests and Diseases, Landslides, Natural Fire and Lightening, Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane and Tornado.
- **Post-Harvest Losses** caused by cyclonic/ unseasonal rains to crops requiring drying in “cut and spread” condition in the field after harvesting (up to a maximum period of two weeks from harvesting). From Kharif 2020 the coverage of risks for post-harvest losses was discontinued (with adoption of technology based approach using remote sensing techniques and use of meteorological data).
- **Localized Calamities** like hailstorm, landslide and inundation.

Implementing Agencies (IAs), *i.e.* Insurance Companies, were selected through tendering procedure upto season Rabi 2019-20. From Kharif 2020 season, Agricultural Insurance Company of India Ltd. (AICIL)¹⁷ was selected as the IA for the whole State on the basis of proposal from AICIL itself at the time of introducing technology based BSB scheme.

2.1.2 Modalities of Premium and Claim calculations

The premium payable was equal to the product of Actuarial Premium Rate (APR) with Area Insured and Scale of Finance (SOF).

Premium Payable	=	(Area insured) X (APR) X (Scale of Finance)
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The APR was derived by the IAs based on statistical evaluation/ actuarial premium analysis, loss cost, historical payout, *etc.* The premium is claimed by the IAs from the Department on the basis of land area insured and the Scale of Finance (SOF) as decided by the District/ State Level Technical Committee (DLTC/ SLTC).

For end of season claim, Yield data (Actual Yield) was determined by the Departmental officials and furnished to Insurance Companies for crops and areas notified based on Crop Cutting Experiments¹⁸ (CCE). The Threshold yield of the notified crop was equal to Average Yield multiplied by Indemnity level. The Average Yield of a notified crop in Insurance Unit (IU) was the average yield of best five years out of last seven years. This was calculated from data on Crop Cutting Experiment (CCE) conducted by the Departmental functionaries. The Limit of Indemnity (LOI)¹⁹ is the maximum amount the insurer will pay under a policy during the policy period. The LOI is decided by the State Level Coordination Committee on Crop Insurance (SLCCCI) and notified by Government before the start of the crop season.

If Actual Yield per Hectare of insured crop for the Insurance Unit falls short of threshold yield, all insured farmers growing that crop in the notified area shall

¹⁷ a nationalised insurance company under the ownership of Ministry of Finance, GoI

¹⁸ Crop Cutting Experiments or CCE is an assessment method to accurately estimate the yield of a crop or region during a given cultivation cycle

¹⁹ There are three levels of indemnity viz. 70, 80 and 90 per cent of the sum insured and it is fixed before the start of the season by the SLCCCI

be deemed to have suffered shortfall in yield of similar magnitude and the farmers would receive claim payments from the IAs according to the formula.

$$\text{Claim} = \frac{(\text{Threshold Yield}) - (\text{Actual Yield})}{(\text{Threshold Yield})} \times \text{Sum Insured (SI)}$$

Where Sum Insured = Area Insured x Scale of Finance (SOF)²⁰

For the scenarios of prevented sowing conditions, mid-term losses and post-harvest losses, the trigger for evaluation for each IU was weather based data to identify excess rainfall, drought and intimation by the Department to the IAs. In those cases the Actual Yield was to be determined on the basis of joint survey by the Department and IAs.

2.1.3 Roles and Responsibilities of various Functionaries, Committees

The roles, responsibilities of the State Government, Insurance Companies and farmers, functions of the portal are illustrated in the diagram below:

State Government:

- To constitute State Level Coordination Committee to decide the Budget, notification, fixation of Insurance unit IU, indemnity level, seasonality discipline (*Appendix 2.1*) and coverage of risks.
- Issue of Notification including the details of insured crops, scale of finance, sum insured, threshold yield at IU level, premium rates for farmers, cut-off date for each activity.
- To notify weather stations for claims of prevented sowing etc., and design an insurance portal.
- To pay the premium on the basis of calculations of the IAs.
- To upload Yield data and weather data in the portal.
- Joint Committee of State Govt. and IA to be formed for assessment of crop damage.
- To Issue order of Loss intimation.
- To publicise the scheme in consultation with IAs.
- To form a State Level Review and Monitoring Committee (SLRMC) for review of premium rates, product benchmarking and performance of IAs.
- Formation of State/ District level Monitoring Committees.

Insurance Companies(IAs):

- To collect land records, particulars of acreage, sum insured, crop sown from farmers and upload it in the portal.
- To ensure coverage of risks against the identified four scenarios.
- To finalise business data for claiming premium from the Govt.
- To release claim amount directly to the farmers based on yield data or loss assessment report by the Joint Committee.
- Take steps for effective publicity in consultation with the State Govt.
- To upload the list of beneficiaries on the portal. Provide provisions for grievance redressal/ feedback.
- To verify the beneficiaries (5%) by the Regional Officers of the IAs and to send the list to the DLMC and SLMC who shall in turn verify 10% of the list.

Portal

- To contain all the data from the notifications.
- To contain data of the insured farmers.
- Weather and CCE data to be uploaded by Government.
- To contain data pertaining to the claims paid.

Farmers:

- Fill up proposal forms, submit it and deposit premium (for potato and sugarcane) within prescribed date.
- Provide documentary evidence with regard to possession of land.
- Furnish area sown certificate getting the same countersigned by block level ADAs
- Give information of any loss due to localized loss, post-harvest loss, etc., within 48 hours.

²⁰ Scale of Finance is decided for each crop at each district by the District Level Technical Committee as the approximate cost of growing the crop taking in all factors like cost of seeds, fertilisers, labour, etc.

The Agriculture Department, with a network of District (headed by Dy. Directors of Agriculture) and block level (headed by Asst Directors of Agriculture) offices, is the nodal Department responsible for implementation of crop insurance schemes. There are some important committees at the State and District level (apart from the monitoring committees, *which are discussed in paragraph 2.5.1*) which are mandated with various roles in implementation of the schemes.

- The **State Level Coordination Committee on Crop Insurance (SLCCCI)** was responsible for crucial functions like deciding Guidelines of the scheme, budget for implementation of the scheme, notification of crops for insurance, fixation of unit for crop insurance (area based), fixation of the indemnity level, coverage of risks and exclusions, providing 10 years' historical yield data to IAs before bidding, etc.
- The **District/ State Level Technical Committee (DLTC/ SLTC)** decides the Scale of Finance per Acre basis for different cropping seasons taking into account different agro-climatic zones, cropping practices, etc., for all important crops grown in the district. The proposals of the DLTCs are reviewed by the SLTC constituted by the Agriculture Department with the HoD of Agriculture as its Chairman.

2.1.4 Audit Objective and Criteria

In view of materiality of expenditure involved in Crop Insurance Schemes (accounting for 56 *per cent* of Plan expenditure under Agriculture Department) and its potential impact on the majority of the population of the State having Agriculture as the main source of livelihood, this detailed compliance audit was conducted with the following objectives:

- Coverage of intended beneficiaries was adequate and services catered to the beneficiaries fulfilled the intended objectives of crop insurance schemes;
- Financial resources were utilised economically and funds were provided in a timely manner to ensure optimum utilization and
- Internal Control mechanism, monitoring and supervision were adequate and effective.

Apart from West Bengal Financial Rules and Treasury Rules, audit comments were framed after comparing various functional aspects with Operational Guidelines of PM Fasal Bima Yojana and Bangla Shasya Bima and orders, circulars issued by the Agriculture Department, Government of West Bengal.

2.1.5 Scope, coverage and methodology of audit

Audit was conducted during July to September 2021 covering the period from 2016-17 to 2020-21 (*i.e.*, Kharif 2016 season onwards). The records of Agriculture Department, Offices of the Dy. Directors of Agriculture (District level) and Asstt. Directors of Agriculture (Block level) were checked in audit. Audit test-checked records in six²¹ districts, three blocks from each district selected using Simple Random Sampling without Replacement (SRSWOR) method (list of sampled offices is given in **Appendix 2.2**). A beneficiary survey was also conducted jointly with representatives of Departmental functionaries among 892 farmers in the selected blocks for detailed checking (**Appendix 2.3**);

²¹ South 24 Parganas, Hooghly, Purba Bardhaman, Purba Medinipur, Jalpaiguri and Birbhum

the areas that emerged from the survey which call for attention of the Department, are shown in *paragraph 2.5.5*.

The responses of the Department on the draft audit observations were received in April 2022, which have been duly factored in at the appropriate places of the Report.

Audit Finding

2.2 Coverage of the schemes in terms of cultivated area

The Crop Insurance schemes aimed to bring all the small and marginal farmers (covering 96 *per cent* of the total operational land holdings in the State) under the Insurance Scheme. Therefore, a time series data on season-wise coverage of the scheme in terms of insured area would provide an indication of impact of the scheme. The same is discussed in the following paragraphs.

2.2.1 Overall coverage in terms of area of land

As per the district-wise operational holdings 2015-16 (Agricultural Census 2015-16), the total cultivable area was 56 LHa. Area covered under crop insurance and sum insured during the period from 2016-17 to 2020-21 is shown in **Table 2.1**.

Table 2.1: Area covered (including comparison with respect to total State) and Sum Insured under Crop Insurance schemes

Year	Insurance coverage	Kharif season (percentage)	Rabi season (percentage)	Total
2016-17	Area (in Ha)	15,02,097 (27)	5,32,921(10)	--
	Sum Insured (₹ in crore)	7,811.18	4,534.75	12,345.93
	Premium paid (₹ in crore)	196.15	226.12	422.27
	Compensation paid (₹ in crore)	104.10	317.56	421.66
	Farmers benefitted	2,91,195	2,88,855	5,80,050
2017-18	Area (in Ha)	9,61,262 (17)	6,69,637 (12)	--
	Sum Insured (₹ in crore)	5,259.70	5,630.73	10,890.43
	Premium paid (₹ in crore)	190.30	201.16	391.46
	Compensation paid (₹ in crore)	219.40	41.70	261.10
	Farmers benefitted	4,44,260	1,06,260	5,50,520
2018-19	Area (in Ha)	10,21,222 (18)	10,21,222(18)	--
	Sum Insured (₹ in crore)	6,366.72	8,431.04	14,797.76
	Premium paid (₹ in crore)	169.52	274.44	443.96
	Compensation paid (₹ in crore)	96.09	444.13	540.22
	Farmers benefitted	1,99,681	5,16,546	7,16,227
2019-20	Area (in Ha)	17,26,470 (31)	12,03,710 (21)	--
	Sum Insured (₹ in crore)	11,508.68	5,353.84	16,862.52
	Premium paid (₹ in crore)	546.87	593.31	1,140.18
	Compensation paid (₹ in crore)	423.14	431.15	854.29
	Farmers benefitted	13,11,167	11,14,375	24,25,542
2020-21	Area (in Ha)	19,99,266 (36)	17,29,715 (31)	--
	Sum Insured (₹ in crore)	Not available	12,592.19	NA
	Premium paid (₹ in crore)	667.65	602.57	1,270.22
	Compensation paid (₹ in crore)	NA	NA	NA
	Farmers benefitted	NA	NA	NA
Total	Sum Insured (₹ in crore)	30,946.28	36,542.55	67,488.83
	Premium paid (₹ in crore)	1,770.49	1,897.60	3,668.09
	Compensation paid (₹ in crore)	842.73	1,234.54	2,077.27
	Farmers benefitted	22,46,303	20,26,036	42,72,339

Source: Data provided by the Agriculture Department; The figures in the brackets represent percentage figures in respect of total cultivable land area in the State.

- During 2016-21, percentage of area brought under Insurance scheme during Kharif seasons varied between 17 and 36 *per cent*, while for Rabi seasons, it was from 10 to 31 *per cent*.
- During 2016-21, total ₹ 3,668.09 crore was spent as premium of Crop Insurance Policies for a total sum insured of ₹ 67,488.83 crore; against the same, total 42.72 lakh farmers received compensation for ₹ 2,077.27 crore during 2016-20 (data in respect of 2020-21 was not made available by the Department).
- It may be further observed that the total premium amount as a percentage of sum insured increased from 2019 Kharif onwards, as the State Government started shouldering the total premium with introduction of BSB from February 2019.

Table 2.2: Premium paid as a percentage of Sum Insured

Year	Kharif	Rabi	Total
2016	2.51	4.99	3.42
2017	3.62	3.57	3.59
2018	2.66	3.26	3.00
2019	4.75	11.08	6.76
2020	NA	4.79	NA

Source: Records produced by the Agriculture Department

- A comparison of amounts of compensation received by the farmers vis-à-vis premium paid showed that out of eight crop seasons during 2016-20, in five seasons (three kharif seasons and two Rabi seasons), amounts of compensation were substantially less than the premium and stood at 21 *per cent* to 77 *per cent* of the corresponding premium amounts. On an aggregate, during 2016-20, 87 *per cent* of total premium amount (₹ 2,397.87 crore) was received by farmers as compensation (₹ 2,077.27 crore).

Evidently, even after four years of implementation of insurance schemes, in 2020-21 Rabi season, only 17.3 LHa (31 *per cent*) of land in the State has been brought under the coverage of insurance scheme. In the test-checked districts, it stood at 31 *per cent* (6.65 LHa covered out of 18.09 LHa of cultivable land) during the same season.

2.2.2 Position in test-checked districts

Position of coverage in test-checked districts indicated inter district imbalances as shown in the **Table 2.3** below:

Table 2.3: Coverage of Area under Insurance scheme in Rabi season 2020-21

District	Total area (in Ha) as per Agricultural Census 2015-16	Area Insured (in Ha)	Percentage
Birbhum	3,20,610	1,92,776	60.13
Hooghly	2,10,824	96,053.42	45.56
Jalpaiguri	1,45,850	23,771.10	16.30
Purba Bardhaman	3,16,992	2,26,833.47	71.56
Purba Medinipur	2,92,590	782,72.81	26.75
South 24 Parganas	5,22,410	47,326.87	9.06

Source: Records produced by the Dy. Directors of Agriculture

It is seen from the table above that the land insured in the test-checked districts of Jalpaiguri (Land:16.30 *per cent*) and South 24 Parganas (Land: 9.06 *per cent*)

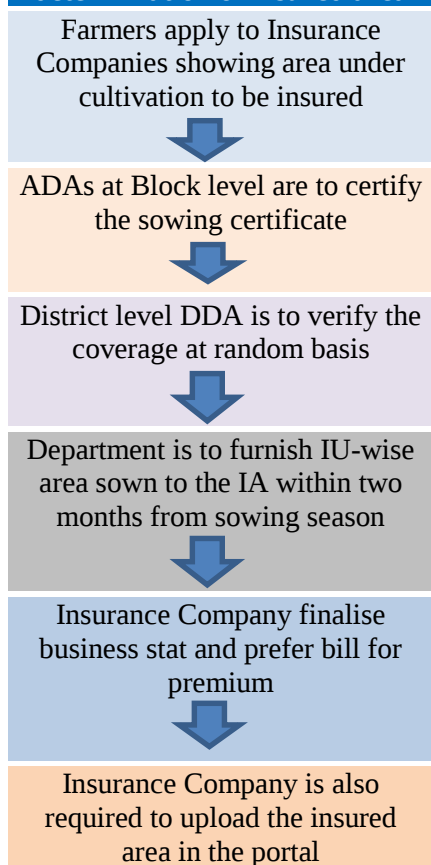
were inadequately covered under the scheme. Such low coverage was attributable to the facts that all the blocks in these districts were not notified for insurance. Moreover, vegetable cultivation was mainly done in these districts which was not covered under insurance.

As regards insufficient coverage of areas, the Department stated (April 2022) that after publication of notifications by the Department in daily newspapers, the Insurance Companies were to do all the publicity campaigns. It was also claimed that the farmers were quite aware of the insurance scheme; but, pointed out that insurance is a matter of solicitation and through concerted efforts of the IAs and Departmental functionaries, the coverage has improved.

The fact remains that there is further scope of improvement in awareness generation efforts. A beneficiary survey conducted by Audit threw lights on lack of awareness among the farmers regarding insurance, with 38 *per cent* of the farmers surveyed not being aware of the risk covered (*vide paragraph 2.5.5 read with Appendix 2.3*), premium rate and premium subsidy, documents required for submission of proposals and cut-off dates for submission of proposals, etc.

2.3 Deficiencies in governance of the schemes

Flow Chart showing process of determination of insured area



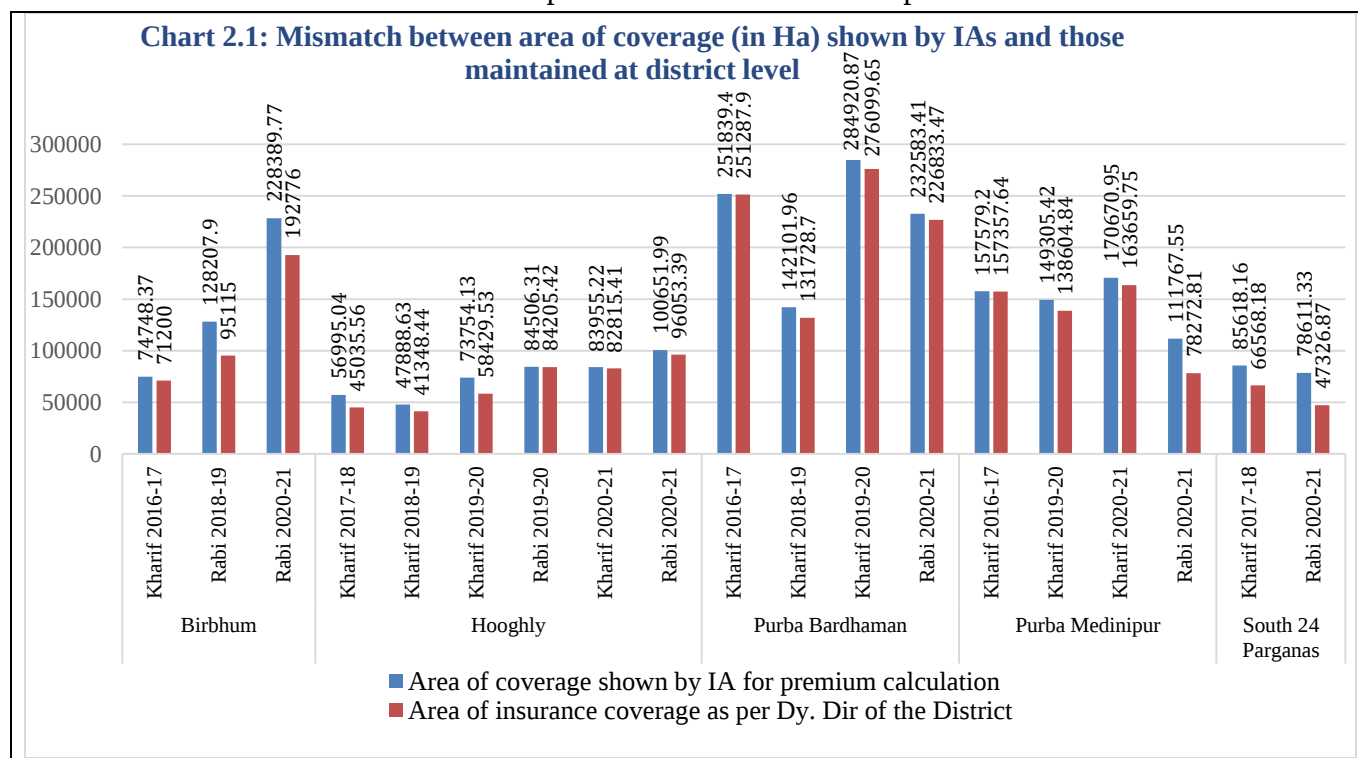
2.3.1 Control over quantum of premium payable

As total premium payable by the Department is a product of three multiplying factors (APR *multiplied by* Area Insured *multiplied by* Scale of Finance), control on determination of these components was crucial for ensuring reasonableness in premium economy in implementation of the insurance scheme.

2.3.1.1 Mismatch in figures of areas insured: The flow chart depicts the various steps and responsibility centres in the process for arriving at the area to be insured. The Dy. Directors of Agriculture (District level functionary) reports season-wise areas covered under insurance to the Department. On the other hand, for calculation of premium amounts, the Insurance companies (*i.e.*, the IAs) collect applications from farmers and obtain sowing certificate from the Assistant Director of Agriculture in the Blocks (ADA) on the body of the application forms. Insurance companies submit bill (for premium) to the department on the basis of these sowing certificates. While processing the premium payment to the IAs, the Department did not compare the total insured area shown by the IAs with corresponding district figures reported by the Dy. Directors²². Absence of cross-verification of these two sets of coverage area assumed significance as in following cases insurance areas quoted by IAs for premium calculation were more than the corresponding district level figures reported by Dy. Directors. Season and district-wise comparison is shown in *Appendix 2.4*.

²² The figures provided by the Deputy Director of Agriculture of each district were on the basis of fortnightly crop coverage reports. These reports were not drawn up on the basis of sowing certificates issued.

The ADAs of test-checked 18 blocks, stated that there was no record of the total area for which the sowing certificates were issued for each crop-season combination. The area sown appearing in the portal was uploaded by the Insurance companies and there was no scope for online validation.



Source: Records produced by the Dy. Directors of Agriculture and Agriculture Department

Thus due to lack of coordination between the Dy. Director of Agriculture and the Department, correctness of the payment made by the Department could not be ensured in audit. However the amount of excess premium could not be quantified in absence of the crop-wise excess area insured.

In its reply (April 2022) the Department was unable to explain the reasons behind such differences and stated that the IAs were the custodian of all the records related to sowing areas under insurance. Evidently, appropriate Departmental check over the area claimed to have been insured by the IAs, was absent. The Department, however, claimed that since Rabi 2020-21, it has brought in a modification to ensure co-ordination among the ADA of the block, DDA (Admn) of the district and the Department to ensure correctness of premium subsidy, thereby corroborating the observation of Audit that there was excess payment due to lack of reconciliation by the Department.

2.3.1.2 Fixation of Actuarial Premium Rates (APR): Actuarial rates are estimates of future losses, generally based on historical loss. It is used to determine the lowest premium that meets all the required objectives of an insurance company. APR is charged by IAs. As per PMFBY Guideline, ceiling of premium rate may be derived based on statistical evaluation/ actuarial premium analysis, loss cost, historical pay out, etc. The guidelines further stipulated that a Technical Support Unit (TSU) was required to be formed to provide support and advice on risk classification and rating, methodology for loss assessment, etc. It would calculate Loss Cost (LC) i.e. claims as percentage of Sum Insured (SI) along with approximate Actuarial Premium Rate (APR) of the crops proposed to be notified for the season.

It was observed that no such TSU was formed in the State as of September 2021. Instead, the State Government appointed (August 2016) Agriculture Insurance Company of India Limited (AICIL) to act as TSU for providing technical support in connection with preparation of bid documents by the Department for one year only. This had given rise to a situation with conflict of interest as the same Insurance Company was also one of the Implementing Agencies (IA) in BSB (Kharif 2016). Moreover, for Kharif 2020 onwards, AICIL was selected as sole IA. However, there was no such assignment of TSU functions from 2017 onwards. As noted from reply furnished by the Department that AICIL was selected as the sole IA, based on a proposal submitted by AICIL. AICIL had submitted a proposal, in terms of which, the yield loss was proposed to be assessed through an approach, based on satellite/ weather data and without much manual intervention. The reply indicated that the Department considered the proposal owing to imposition of nation-wide lockdown/ restrictions in view of COVID 19 outbreak, as the proposal of AICIL did not involve much physical movement or social gatherings.

In course of audit scrutiny it was observed that with the assignment of IA functions to AICIL, the CHF was to be determined by AICIL. However, as a result of this, the Department had no control in determining the claim settlement and power of settlement of claim was vested only with the AICIL and that the control over Satellite data also rested with AICIL. This has been subsequently discussed in *paragraph 2.3.1.5 (ii)* of the Report.

For Kharif 2020 and Rabi 2020-21, no claim data was made available by the Department to Audit, though the same had been requisitioned (in July 2021).

The department, in its reply (April 2022), stated that there was no scope for the State Government to fix any ceiling on premium rate under the PMFBY Guidelines. The reply was, however, silent on reasons for non-formation of TSU to calculate LC and approximate APR before going into tender. As a result, the Department was not in a position to assess the justifiability of the higher APR values²³ quoted by the IAs.

2.3.1.3 Acceptance of different APR for adjacent districts in same Agro Climatic Zone: It was also observed that there were instances of wide variations in APR of contiguous districts in same Agro Climatic Zone during Kharif 2017 to Kharif 2020 and Rabi 2018-19 to Rabi 2020-21, which could not be explained to Audit.

Table 2.4.1: Variations in APRs of adjacent districts in same Agro Climatic Zone

Crop season	District having lower APR (APR)	Adjacent district having higher APR (APR)	Lower APR in the pair
Kharif 2017/ Aman Paddy ²⁴	Murshidabad (1.29)	Nadia (4.24)	1.29
	Coochbehar (0.85)	Jalpaiguri (1.48)	0.85
	Burdwan (1.50)	Hooghly (3.5)	1.50
Kharif 2018/ Aman Paddy	Jalpaiguri (4.0)	Coochbehar (15.78)	4.00
	Burdwan (1.7)	Hooghly (5.14)	1.70
Kharif 2019/ Aman Paddy	Murshidabad (2.30)	Nadia (6.80)	2.30
	Purba Bardhaman (5.00)	Hooghly (7.90)	5.00

²³ At least 50 such cases were noticed, where the APR ranged from 20 per cent to 38.61 per cent of sum insured

²⁴ Aman Paddy is sown in July-August and harvested in winter.

Crop season	District having lower APR (APR)	Adjacent district having higher APR (APR)	Lower APR in the pair
Kharif 2020/ Aman Paddy	Murshidabad (2.07)	Nadia (6.12)	2.07
	Purba Bardhaman (4.50)	Hooghly (7.11)	4.50
Rabi 2017-18/ Potato	Jalpaiguri (5.20)	Coochbehar (12.0)	5.20
	Hooghly (15.00)	Purba Bardhaman (17.71)	15.00
Rabi 2018-19/ Potato	Murshidabad (10.87)	Nadia (17.30)	10.87
	Purba Bardhaman (11.90)	Hooghly (15.43)	11.90
Rabi 2019-20/ Potato	Nadia (5.15)	Murshidabad (11.96)	5.15
	Purba Bardhaman (13.09)	Hooghly (16.97)	13.09

Source: Season-wise notifications issued by the Agriculture Department

Such variation led to calculation of higher premium for adjacent districts within the same Agro Climatic Zone with higher APR as illustrated below:

Table 2.4.2: Effect on quantum of premium for adoption of higher APR

Crop season	District having lower APR	District having higher APR	Lower APR in the pair (in per cent)	Area Insured (in Ha)	SOF (in ₹)	Premium should have been (in ₹) considering lower APR	Premium actually paid due to higher APR (in ₹)	Excess premium (in ₹)
						of the district having higher APR		
1	2	3	4	5	6	7 = 4 X 5 X 6	8	9 = 8 - 7
Kharif 2017/ Aman	Murshidabad (1.29)	Nadia (4.24)	1.29	30,265.51	55,575	2,16,97,874	7,13,17,048	4,96,19,174

Source: Season-wise notifications & data furnished by the Agriculture Department

Appendix 2.5 shows a comparison of divergent APRs for sets of adjacent districts within the same Agro Climatic Zone for a particular crop in a particular season. It would show that adoption of lower APRs could have led to a savings of ₹ 106.65 crore towards premium for Aman Paddy and ₹ 71.99 crore for Potato.

In its reply (April 2022) the Department claimed that under PMFBY guidelines there was no scope for the State Government to fix any ceiling on premium rate even if different rates were quoted for districts in same agro climatic zone. However, this was not in conformity with the facts, as there was a specific para in the PMFBY guideline (Para 7.1.6²⁵ provided that depending on the risk profile, historical loss cost and cost benefit analysis, if the State Government feels that the premium rate likely to be offered by bidding Insurance Companies would be abnormally high, then the State Government can fix a ceiling on premium rates for bidding evaluation).

2.3.1.4 Discrepancy in Scale of Finance leading to payment of excess premium: As per the guidelines, the sum insured per hectare for farmers would be equal to the Scale of Finance (SOF) which is to be decided by the District Level Technical Committee (DLTC) and would be notified by the Department. Sum Insured for individual farmer should be equal to the SOF per hectare multiplied by the area of the notified crop proposed by the farmer for insurance.

However, scrutiny revealed that the SOF notified by the State was not exactly as approved by the DLTC in six test-checked districts. There were variations in almost all crops for all seasons and in most cases the SOF notified by the Department was higher than that approved by the DLTC. As a result an excess

²⁵ “Depending on the risk profile, historical loss cost and cost benefit analysis for the proposed crop(s) in district(s) of any cluster, if the State Government feels that the premium rate likely to be offered by bidding Insurance Companies would be abnormally high, then the State Govt. can fix a ceiling on premium rates for such crop(s) proposed to be included in the bidding evaluation for the bidding period”

premium of ₹ 23.79 crore was paid by the State Government during the period 2016-21 as detailed in [Appendix 2.6](#).

In its reply (April 2022) the Department claimed that there were separate SOF for a particular crop for irrigated and un-irrigated areas and only the values approved by the DLTC were notified. However, this was not borne out by the facts as Audit compared the highest SOF notified by the DLTC for a particular crop with the State notification and there was still a considerable gap which affected the final premium amount.

2.3.1.5 Assessment of loss/ shortfall in yield

(i) Crop Cutting Experiment (CCE) until 2020: For end of season claim, the scheme operates on the basis of area approach, *i.e.* defined areas for each notified crop and insurance unit. Yield data was to be determined by the Departmental officials and furnished to Insurance Companies for crops and areas notified based on total number of Crop Cutting Experiments²⁶ (CCE) for calculation of Actual Yield. If actual yield per Hectare of insured crop for the Insurance Unit falls short of threshold yield, all insured farmers growing that crop in the notified area shall be deemed to have suffered shortfall in yield of similar magnitude.

Scrutiny of CCE records for the period from 2016-19 provided by test-checked Blocks of Purba Bardhaman and Jalpaiguri districts and CCE data of those particular blocks forwarded to the IAs by the Department revealed that in 70 (Potato: 60 and Paddy: 10) out of 303 (Potato: 100 and Paddy: 203) cases, the CCE value forwarded by the Department was higher than the block level test-checked records. This adversely affected the chances of claim payment for 2.53 lakh farmers of six blocks.

In its reply (April 2022), the Department claimed that yield estimation was done by a third party namely the Bureau of Applied Economics and Statistics (BAES) under the Department of Planning and Statistics, Government of West Bengal on the basis of CCE conducted by them. Hence, the Department had no role to play. However, it was contrary to the notification by the State where both the Department of Agriculture (for Aman Paddy) and the BAES were responsible for conducting CCEs. Besides, all the figures cited by Audit from the test-checked blocks were sourced from the records of the ADAs of the Department of Agriculture.

(ii) Crop Health Factor (CHF) from 2020: As per the revised BSB guidelines, 2020, Threshold Yield had been replaced with threshold CHF from Kharif 2020 onwards, the responsibility of determining the CHF was transferred to AICIL from the Department. As a result of shifting of responsibility the Department had no control in determining the claim settlement and power of settlement of claim was vested only with the AICIL.

The Department stated (April 2022) that the responsibility of claim calculation under crop insurance was always that of the IA and the same was done on the basis of yield data provided by a third party (in this case ISRO-NRSC). However, unlike in the case of claim calculation on the basis of CCE where the

²⁶ Crop Cutting Experiments or CCE is an assessment method to accurately estimate the yield of a crop or region during a given cultivation cycle

data on whose basis claims were calculated was lying with the Department, in case of CHF the Satellite data was lying with a third party.

2.4 Insurance claims and settlement

As per data furnished by the Department, during 2016-21 (*i.e.*, from Kharif 2016 season), there was a total crop insurance claim (fully admitted) of ₹ 2,078.28 crore, of which ₹ 2,077.28 crore was paid to 42.72 lakh farmers.

This position, however, does not include any data in respect of Kharif 2020 and Rabi 2020-21, as the same was not furnished by the Department as of February 2022, though called for (July 2021).

2.4.1 Deprivation of farmers from claim against prevented sowing conditions, mid-term losses and post-harvest losses

For the scenarios of prevented sowing conditions, mid-term losses and post-harvest losses, the trigger for evaluation for each IU was weather based data to identify excess rainfall, drought and intimation by the Assistant Director of Agriculture of the block. For this purpose, with each notification, a list of weather stations was notified.

Scrutiny, however, revealed that there was no specific mapping of weather stations to the Insurance Units (IUs). It was observed that out of 18 test-checked Blocks, no weather stations were notified in five blocks. Though there were weather stations in 13 test-checked Blocks, 11 Blocks did not receive weather reports from the designated weather stations as the automatic weather stations were defunct. The manual rain gauge stations were also not sending the required weather reports for triggering the prevented sowing, mid-term loss and post-harvest loss conditions.

Further, in violation of the guidelines, the DLMC and District Agriculture Office in test-checked districts never functioned as Joint Assessment Committee for assessing crop loss in case of prevented sowing conditions, mid-term calamities and post-harvest losses.

As a result, no notification for prevented sowing conditions, mid-term calamities or post-harvest losses in five (all excluding Hooghly²⁷) out of six test-checked districts was noticed. This allowed the insurance companies to evade responsibility by refusing compensation to the farmers in case of prevented sowing conditions, mid-term calamities or post-harvest losses. In reply, all the 18 test-checked Blocks stated that there were no cases of prevented sowing, mid-term calamity or post-harvest losses during the audit period. This fact was, however, contradicted by the beneficiary survey (conducted jointly with departmental officials), where 443 (50 *per cent*) of the farmers surveyed lodged claims of such losses.

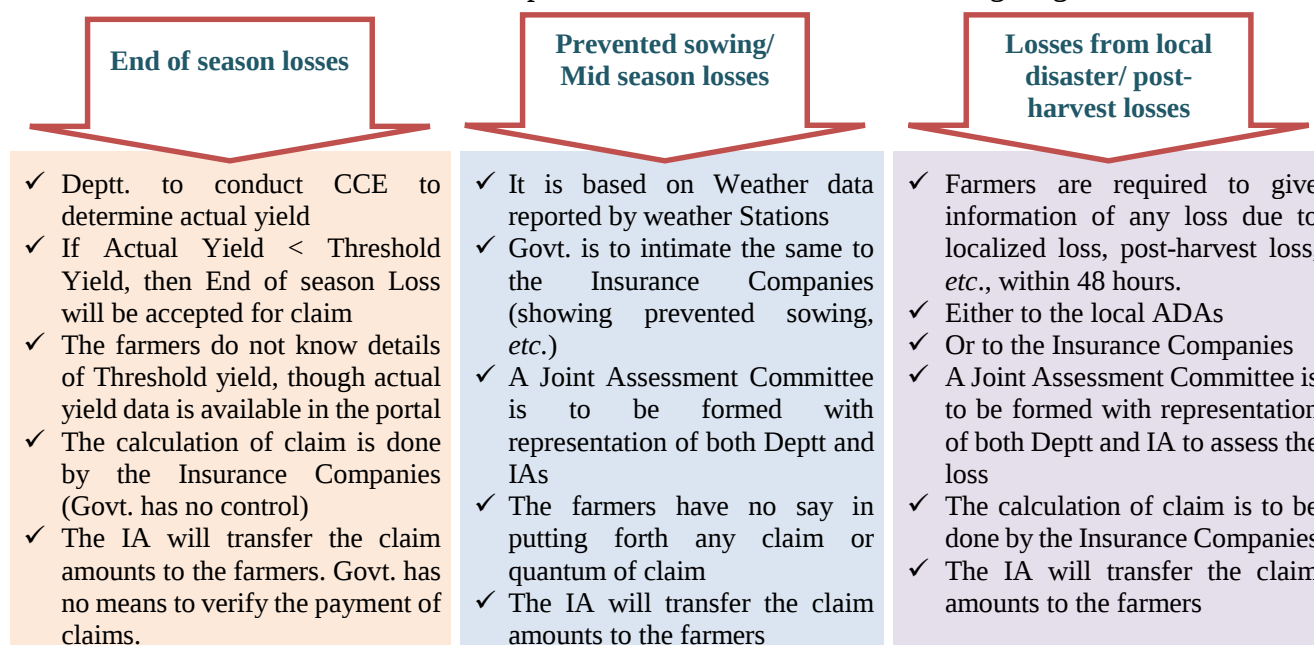
In its reply (April 2022), the Department admitted that some of the weather stations were inactive. However, it claimed that weather data for all IUs were available from one source or the other. The reply did not address the Audit's observation, which was not only about the availability of the weather data, but also on the non-receipt of the weather reports at the ADA level and consequent non-formation of the joint assessment committee. The picture at the block level

²⁷ Mid-season adversity notification was issued in Hooghly district for kharif 2017 for three blocks (Aman paddy) and Rabi 2018 19 for all blocks (Potato). Besides post-harvest loss notification was issued for kharif 2017 in all blocks for Aman Paddy.

was further substantiated at the whole state level from the fact that only ₹ 100.90 crore (quoted by the Department in its reply) were distributed as claims on these accounts during the period 2016-21 to 1,63,848 farmers by all the IAs throughout the State.

2.4.2 Assessment of Claims

The process of assessment of Insurance claims and their settlements in different scenarios of crop loss is summarised in the following diagram:



Source: Guidelines of the scheme

- From the procedures, it is evident that Government has little control on settlement/ calculation of claim.
- Actual payment of claim to farmers is not monitored by the Department as data was not uploaded in the portal by the IAs.

In case of end of season claims, once yield data was received from the Department, claims would be worked out by the IAs for each notified area and crop. In case of claims under prevented/ failed sowing, localized calamities, post-harvest losses, IAs will process the claims after joint assessment (by IAs and Departmental functionaries) and shall release the claims as per procedure given in the guidelines. After finalization of claims, the Insurance Company shall transfer the claim amounts online directly into the bank accounts of farmers. The list of the beneficiaries (Bank-wise and insured area-wise) shall also be uploaded on the crop insurance portal and website of the concerned insurance companies.

It was observed that the IAs only supplied the list of the Banks and the amounts remitted as claim amounts to the Department. However, there was no verification mechanism by the Department to ensure whether the amounts actually reached the bank accounts of the farmers. The list of beneficiaries was also not uploaded in the crop insurance portal.

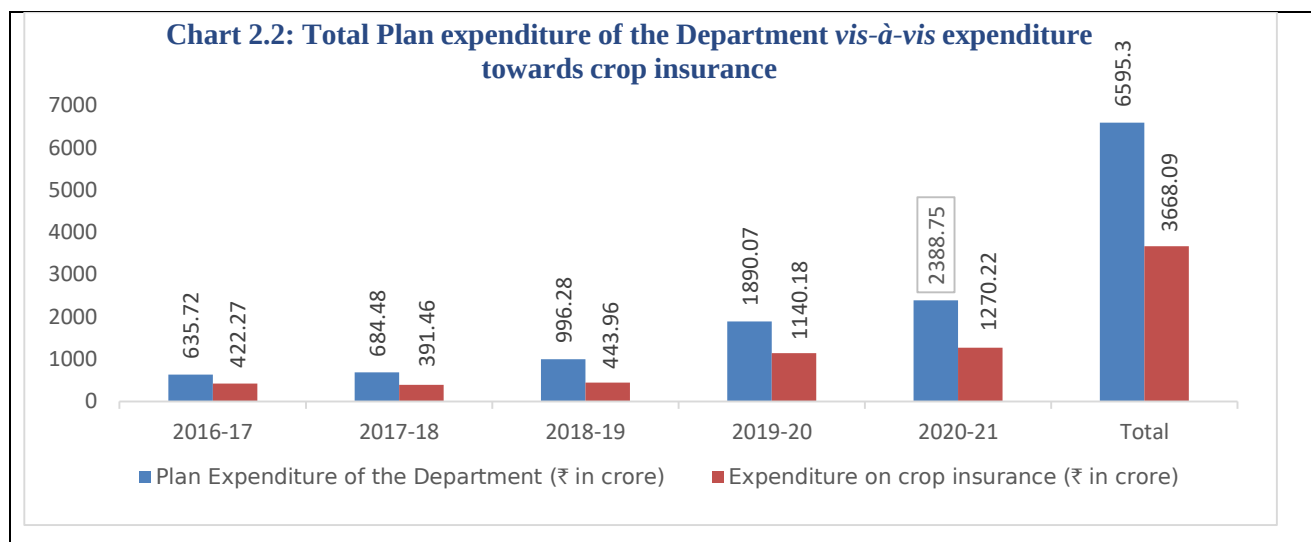
The season-wise amounts of claims, claims admitted, claims paid and number of farmers receiving insurance amounts are shown in [Appendix 2.7](#).

The Department did not provide claim data from Kharif 2020 onwards.

Viewed with the fact that the mechanism of submission of beneficiary verification reports by the IAs and cross-verification by monitoring committees, was not followed (*vide paragraph 2.5.1*), the aspect of actual percolation of benefits call for active intervention of the Government.

2.4.2.1 Instance of turning down of claim by IA: In test-checked district of Jalpaiguri, 34,165 farmers had applied for PMFBY during Kharif 2017 within cut-off date, i.e., 31 July 2017. Though the natural calamity occurred during 10.08.2017 to 13.08.2017, district authority failed to identify insured farmers due to non-uploading of data by the Insurance Agency. As a result, the farmers were deprived of the benefit of the scheme. However, the financial implication could not be quantified as the application for mid-term loss was turned down by the Insurance Company. No penal action against the IA was forthcoming from records.

2.4.2.2 Increase in premium payment without achieving intended benefits to the farmers: The Department incurred ₹ 3,668.09 crore during the period from 2016-17 to 2020-21 towards payment of crop insurance premium as shown in **Chart 2.2**:



Source: State Budget document, sub-head account and data furnished by the Department. For the year 2020-21 the State Development schemes were only considered.

Table 2.5: Budget Estimates and Releases

Year	Budget Estimate for Crop Insurance	Released to IC
	(₹ in crore)	
2016-17	416.57	422.27
2017-18	260.00	391.46
2018-19	450.00	443.96
2019-20	398.20	1,140.18
2020-21	450.00	1,270.22

Source: Reply furnished by the Agriculture Department

It was observed that the crop insurance premium entailed a large burden on the Departmental budget, which was about 57 per cent of the Plan Expenditure of the Agriculture Department during 2016-21.

It was observed from the available records that there was excess expenditure every year except in 2018-19 in comparison to the budget allocation on crop insurance as shown

in **Table 2.5**. This was mainly due to delay in finalization of the bills by the IAs. As per guidelines, all admissible claims based on yield data/ post-harvest losses shall be settled by the IA on receipt of 2nd instalment of premium subsidy on the basis of tentative business statistics generated. There were consistent delays in submission of bills by the IAs as detailed in **Appendix 2.8**. This hampered the timely payment of claim amount by the IAs.

2.5 Monitoring and Supervision

2.5.1 Monitoring of the scheme

There was a two-level monitoring mechanism in the guidelines- a State Level Review and Monitoring Committee (SLRMC) at the State level and District Level Monitoring Committee (DLMC) at district level. Further, the State Level Coordination Committee for Crop Insurance (SLCCCI) was authorised to oversee the overall implementation of the schemes.

The activities of these Committees are compared with the corresponding mandates in the following table:

Table 2.6: Activities of District and State level committees vis-à-vis mandate

Composition and mandate	Activities performed
District Level Monitoring Committee (DLMC) under the Chairmanship of District Magistrate; Dy. Director of Agriculture being the Convener.	
To ensure proper coverage under the scheme, the DLMC was <i>inter alia</i> mandated with the following roles: • Verify the coverage on random basis, • Monitor conduct of CCEs in districts, • Provide fortnightly crop condition reports and periodical reports on seasonal weather conditions, etc., to the concerned insurance company. • Further, the DLMC was to furnish to the insurance companies the IU-wise area sown of insured crops within two months from the sowing period. • The DLMC would also assist the insurance companies for assessment of crop loss of individual insured farmers caused by localized perils and also assist in assessment of post-harvest losses • Besides, about five <i>per cent</i> of the beneficiaries were to be verified by the Insurance Companies; DLMC was to obtain the feedback from IAs and cross verify at least 10 <i>per cent</i> of the beneficiaries verified by the insurance company and send the feedback to State Government.	• Records of test-checked district offices did not show any documentary evidence in support of carrying out of these functions. • In six test-checked districts, DLMC meetings were held at the beginning of the two cropping seasons each year. It was, however, a routine affair without any specific issues as envisaged in the guidelines. • Though various generalised decisions²⁸ taken and directions issued, there was no follow up on record. The DLMCs did not review the compliance to the decisions/ directions issued in earlier meetings. • As regards verification of beneficiaries by IAs and cross verification by DLMC, it was observed in audit that the IAs submitted a certificate stating that they had complied with this condition without appending any details. The DLMC did not ask for the details for cross verification.
SLRMC under the chairmanship of the HoD of Agriculture Department	
• SLRMC was responsible for Periodical review (preferably monthly) of implementation of the scheme. • It shall Review and monitor the implementation of BSB including premium rates, product-benchmarking. Review performance of participating insurance companies and suggest modifications/ improvements wherever required.	It was observed that there were only four SLRMC meetings during the period of audit. It was noticed from the Minutes of Meeting that the issues like late uploading of farmer details by the IAs in the portal, non-payment of claims by the IAs, delayed payment of end of season claims, portal related issues came up for discussion, compliance of the directions was, however, not followed up as observed during audit.

Source: Guidelines of the scheme

Hence, the monitoring system as envisaged in the guidelines were not being implemented properly.

²⁸ Illustrative list of common type of decisions: Direction to the IA to increase publicity for the scheme, direction to the IA to keep close coordination with the Assistant Director of Agriculture of the blocks, direction to the IA to maximise the number of enrolled farmers, direction to the IA to deploy adequate manpower and open offices at the District/ subdivision level

Such under performance of DLMC, especially non-intimation of area sown of insured crops to the IA within two months from the sowing period, may be viewed with the mismatch of area coverage quoted by the IAs while claiming premium with set of data compiled by the Dy. Director of Agriculture (Convener of the DLMC) at district level (*discussed in paragraph 2.3.1.1 read with Appendix 2.4*). It also contributed to the non-payment of compensation due to the prevented sowing/ mid-term/ post-harvest losses in the test-checked districts except in Hooghly.

2.5.2 State Portal for BSB – shortcomings therein

As per the operational guidelines of BSB, the Department shall endeavour to integrate all the stakeholders, viz. Government agencies, insurance companies and farmers on a single IT platform to ensure better co-ordination and transparency for getting real time information and monitoring. The idea behind developing a web-based, integrated IT solution is to speed up service delivery, unify fragmented databases, achieve a single view of data, eliminate manual processes and thus provide faster insurance services to farmers. The portal had to provide the following services as per the guidelines.

- **Farmer's enrolment and premium remittance:** The portal only provided individual farmer's data containing details like name, land details, crop insured, bank account, etc. The block/ district/ state-wise details about the total number of farmers enrolled and the land insured was available. However, the portal does not capture the APR and SOF for a particular crop-district combination, though envisioned in the guidelines. As a result, the portal could not calculate the total premium incorporating the APR and SOF. Hence an overall view of the total premium payable by the State and farmers (for potato and sugarcane), district-wise and crop-wise was not available in the portal.
- **Information and reports regarding mid-term/ preventive sowing/ individual/ localized claims:** No information was uploaded from the weather stations attached to each IU regarding the weather parameters for prevented sowing, mid-term, individual/ localized claims.
- **Average Yield (AY)/ Threshold Yield (TY) data for final claim calculation and remittance of claims into farmer's bank account:** The CCE data was available in the portal. However CHF data was not available from Kharif 2020 onwards. Threshold yield for the IU and claim amount remitted into the farmers' bank accounts could not be checked from the portal. This has substantially restricted the utility of this portal both for the farmers and the Government.

The Department stated (April 2022) in reply that continuous development and upgradation of the portal was going on and provisions were being made for registering claim disbursement data also.

2.5.3 Publicity and awareness generation

As per the guidelines of the schemes, adequate publicity was to be given in all the villages of the notified districts. All possible means of electronic, print media, farmers fair, etc., were to be utilised to create and disseminate awareness about the benefits and provisions of the scheme among the farmers. It was the responsibility of the IAs for creating awareness and generate publicity about the Insurance schemes.

Actual efforts taken by IAs for publicity and awareness among farmers were not forthcoming from records at the District/ block level. Concerns were expressed in DLMC meetings regarding inadequate publicity. However, compliance to the directives of the committee was not pursued as already discussed in [paragraph 2.5.1](#) above.

During beneficiary survey, 335 (37 per cent) farmers stated that they were not aware of the risk covered, premium rate and premium subsidy given by GoI and the State Government, documents required for submission of proposals and cut-off dates for submission of proposals.

2.5.4 Other areas of governance

- **Grievance redressal:** The BLMC, DLMC and the SLRMC were also tasked with grievance redressal. No records were maintained regarding the number of complaints received and redressal there-against.
- **Assessment of performance of IAs:** No assessment of the performance of the IAs as mentioned in the guidelines was conducted. Mentions were made regarding poor performance of the individual IAs in the SLMC meetings. However, no concrete redressal plans were discussed, neither was any penalty²⁹ imposed for poor performance.

2.5.5 Areas with scope of improvements arising out of Beneficiary survey conducted jointly with departmental officials

Audit conducted a survey covering 892 farmers covered under the Insurance Scheme to assess the actual status of percolation of benefits and farmers' experiences. Detailed outcomes of the survey are tabulated in [Appendix 2.3](#). The major areas with further scope of improvement are depicted in the following charts.

Chart 2.3: Whether the farmers were aware of the risk covered, premium rate and premium subsidy given by GoI and the State government, documents required for submission of proposals and cut-off dates for submission of proposals

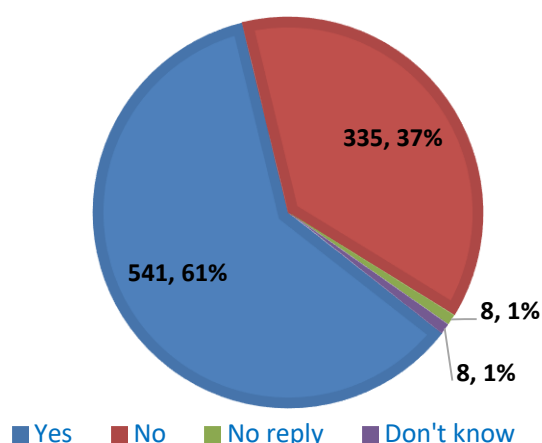
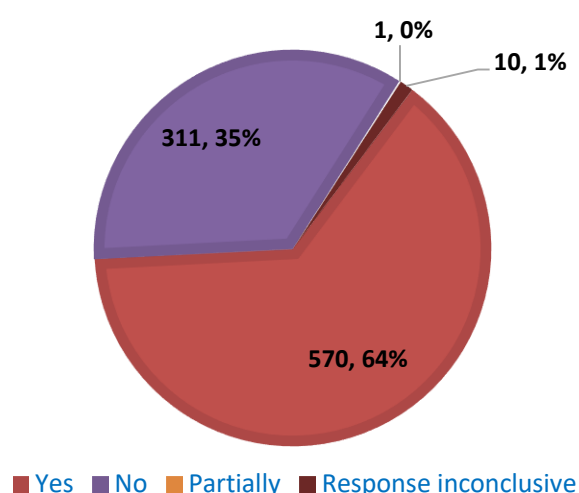


Chart 2.4: Whether the farmer has been informed about insurance of his crop. Whether any insurance policy is available with the farmer



²⁹ Penalties for shortcomings in implementation and delivery of the scheme included penal interest for delayed payment of claims, forfeiture of a percentage of premium for deficiency in services and also debarment from participation.

Chart 2.5: Whether the farmer was aware of the claim amount due.

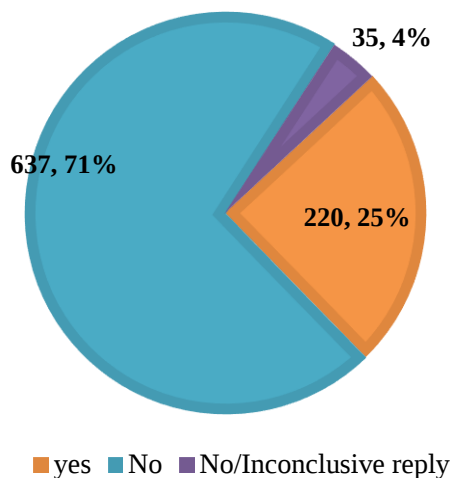
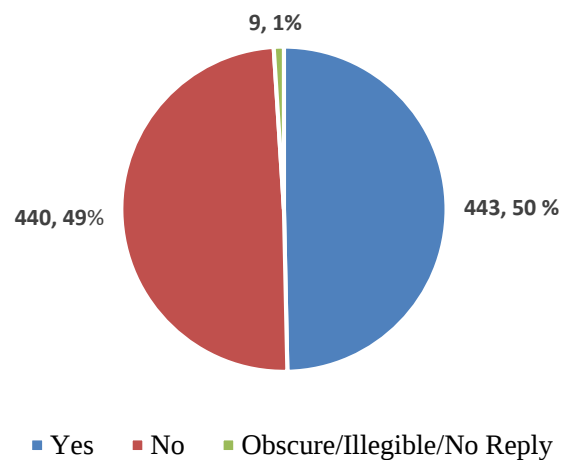


Chart 2.6: Whether the farmer applied for compensation for prevented/ failed sowing or mid-term calamities or post-harvest loss in previous years.



Source: Beneficiary survey

- As per provisions of the Guidelines, both Government and Insurance Company were responsible for publicising the scheme among the farmers so that they were aware of the features of the scheme. Though the number of farmers covered under the scheme has increased over the years, it surfaced from the beneficiary survey that 37 per cent of the farmers surveyed were not aware about the features of the scheme as brought out in [Chart 2.3](#).
- The survey also brought out the fact ([Chart 2.4](#)) that once the farmers had applied for insurance cover to the IAs, substantial number of farmers (35 per cent) were not informed by the IAs about acceptance of the application (in the form of policy documents or through any confirmatory message).
- A majority of the farmers interviewed (71 per cent) were not aware of the claim amount due.
- [Chart 2.6](#) shows that almost half of the farmers surveyed had applied for compensation in respect of the claim for prevented sowing or mid-term calamities; however, payment in respect of these claims were low (out of total compensation of ₹ 2,077.27 crore paid by the IAs during 2016-20, compensations on these three counts accounted for less than five per cent as discussed in [paragraph 2.4.1](#)).

2.6 Conclusions and Recommendations

Conclusions:

Even after four years of implementation, only 31 per cent of cultivated land in the State has been brought under the coverage of insurance scheme in 2020-21 Rabi season.

There were instances of lax governance on various crucial aspects of the Insurance schemes. There were discrepancies in the area brought under insurance coverage. The Department did not compare the area shown by the

Insurance Companies with the District level figures. The APR quoted by the IAs were accepted by the Department in the absence of independent assessment through formation of TSU in the State. Appointment of AICIL to perform tasks mandated for TSU (in kharif 2016) gave rise to a situation of conflict of interest.

Similar crops grown in contiguous districts within the same agro-climatic zone attracted highly divergent premium rates, which resulted in avoidable excess payment of premium. Variations in SOF in almost all crops for all seasons resulted in payment of excess premium. Adoption of Higher CCE value adversely affected the chances of claim payment. Further, with the transfer of responsibility of determining CHF to AICIL the Department lost control in determining the claim settlement.

Lack of information of weather report, threshold yield, claim report, etc., in the portal hampered the real time monitoring of the scheme. Farmers were not aware of the risk covered, documents required for submission of proposals and cut-off dates for submission of proposals, etc.

The mechanism for assessment of claims and payment thereof allows little control of the Department on the decisions of the Insurance Companies. The situation was compounded by lack of monitoring and cross checking on actual percolation of benefits to the farmers.

The aim of the State Government to extend hassle free benefits of crop insurance to all the farmers of the state and to ensure timely claim settlement following transparent and simplified procedures in event of crop loss was not achieved. There was no verification mechanism by the Department to ensure that the amounts actually reached the bank accounts of the farmers.

Recommendations:

- *Government should revisit the process of acceptance of rates offered by the IAs. There should be more oversight on premium payment mechanism.*
- *The Department should create a permanent database of the farmers' of the State so that entry of data individually for each season is not repeated. This would shorten the timeline for scheme thereby improving the claim payment process. Government should review the premium rates on the basis of the parameters stated in the guidelines.*
- *Government should ensure that individual farmers are aware about the features of the scheme including process of lodging.*