

GOVERNMENT OF INDIA
MINISTRY OF FOOD PROCESSING INDUSTRIES
RAJYA SABHA
UNSTARRED QUESTION NO. 1676
ANSWERED ON 13TH FEBRUARY, 2026

COLD CHAIN, WAREHOUSING AND POST-HARVEST LOSS REDUCTION

1676 SHRI MANAN KUMAR MISHRA:
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SHRI BABURAM NISHAD:
SHRI CHUNNILAL GARASIYA:
SHRI MAHARAJA SANAJAOBA LEISEMBA:

Will the Minister of Food Processing Industries be pleased to state:

- (a) the cold chain and storage capacity created under Government support;
- (b) the manner in which these facilities are being distributed across horticultural production regions including North-East;
- (c) whether any measurable reduction in post-harvest losses has been recorded;
- (d) if so, the details thereof and if not, the reasons therefor;
- (e) the details of existing coordination mechanism between States and private sector for last-mile connectivity; and
- (f) the steps taken to ensure affordability and accessibility of these facilities to small farmers?

ANSWER

THE MINISTER OF STATE FOR FOOD PROCESSING INDUSTRIES
(SHRI RAVNEET SINGH)

(a) & (b): Under the component scheme - Integrated Cold Chain and Value Addition Infrastructure (Cold Chain scheme) of Pradhan Mantri Kisan Sampada Yojana (PMKSY) being implemented by the Ministry of Food Processing Industries (MoFPI), as on 31.01.2026, 302 cold chain projects have been completed and operationalized thereby creating 9.108 Lakh MT capacity of cold storage across the country including North Eastern States. The distribution of 302 completed cold chain projects and their associated storage facilities across the country is provided at **Annexure-I**.

Further, under Cold Chain scheme, standalone cold storage is not supported. However, setting up of cold storage is supported under (i) Mission for Integrated Development of Horticulture (MIDH) of Department of Agriculture and Farmers Welfare (DA&FW), (ii) Development of Commercial Horticulture through Production and Post-Harvest Management of Horticulture Crops and (iii) Capital Investment Subsidy for Construction/ Expansion/ Modernization of Cold Storages and Storages for Horticulture Products of National Horticulture Board (NHB) under DA&FW.

As on 31.01.2025, as per the data provided by DA&FW, 8760 total number of cold storages have been created with total capacity of 397.08 LMT across the country from the schemes being implemented by DA&FW and MoFPI. Details of the same are attached as **Annexure-II**.

(c) & (d): The Ministry of Food Processing Industries estimates post-harvest losses from time to time for various agri-produces in the country through commissioning of studies based on primary surveys. Two studies were commissioned by the Ministry through (i) Indian Council of Agriculture Research (ICAR) -Central Institute of Post-Harvest Engineering & Technology (CIPHET), 2015 with reference year 2012-14 and (ii) NABARD Consultancy Service Pvt. Ltd (NABCONS), 2022 with reference year 2020-22. The available studies on post-harvest losses are periodic in nature and do not provide year-wise estimates.

Thus, as per the findings of these two studies, a reduction in the post-harvest losses has been observed for the crops covered under these studies. Accordingly, the estimated percentage of Post-Harvest loss of various agricultural produce in India is as follows:

Crops/ Commodities	Estimated Percentage Loss	
	As per ICAR-CIPHET study (2015)	As per NABCONS study (2022)
Cereals	4.65 - 5.99	3.89-5.92
Pulses	6.36 - 8.41	5.65-6.74
Oil Seeds	3.08 - 9.96	2.87-7.51
Fruits	6.70-15.88	6.02-15.05
Vegetables	4.58-12.44	4.87-11.61
Plantation Crops & Spices	1.18-7.89	1.29-7.33
Milk	0.92	0.87
Fisheries (Inland)	5.23	4.86
Fisheries (Marine)	10.52	8.76
Meat	2.71	2.34
Poultry	6.74	5.63
Egg	7.19	6.03

Since, State-wise information was not captured in the ICAR-CIPHET Study (2015), the State-wise details of post-harvest losses, as assessed in the NABCONS Study (2022), are placed at **Annexure-III**.

Implementation of Cold Chain scheme helps in reducing post-harvest losses of farm produce / commodities by increasing their shelf life, enhancing their processing level and making them available throughout the year to the consumers across the country irrespective of the area. Further,

MoFPI has conducted a study entitled “Impact Evaluation of Integrated Cold Chain and Value Addition Infrastructure Scheme” in 2025 through M/s Academy of Management Studies, which revealed that (i) a significant share of the farm produce would have been spoiled in the absence of cold chain facilities, (ii) cold chain facilities assist farmers and processors to produce more quantum of farm produce and processed food and supports forward market linkages till it reaches consumers, and (iii) cold chain systems also helps in sustaining the quality of the produce and extending the shelf life by reducing losses during storage and distribution.

(e): MoFPI does not set up food processing projects on its own under any of its scheme. Any individual / Central & State PSU / Joint Venture / NGO / Cooperative / Self Help Group (SHG) / Farmer Producer Organizations (FPO) / Farmer Producer Company (FPC)/ Public & Private Sector Companies / Limited Liability Partnership (LLP)/ Partnership Firm/ Proprietorship Firm with business interest in cold chain solutions and also by those who manage supply chain are eligible to apply and avail benefits from Cold Chain scheme. State Government concerned issues statutory approvals for power connection, water supply, building plan, consent to establish (CTE), consent to operate (CTO) of the project, etc. and thereby facilitates the project implementing agency (PIA) for setting up of food processing projects. Where difficulties are faced by the Project Implementing Agencies (PIAs) in obtaining such approvals, the Ministry engages with the concerned State authorities to assist in expediting the process.

(f): MoFPI through its Promotional Activities scheme organizes various international and domestic food fairs/ exhibitions for creating awareness to the general public including prospective entrepreneurs and farmers on various schemes being implemented by this Ministry for the development of food processing sector across the country. The information relating to the details of cold chain projects approved under Cold Chain scheme available in the public domain of the Ministry’s website helps farmer to access the nearby cold chain facility and avail the benefits from them easily. Further, FPOs/ FPCs comprising of farmers have been provided with the following advantages over the applicants from general areas for availing subsidy for setting up of cold chain project under the Cold Chain scheme:

(i) shall have net worth equal to the grants-in-aid sought as against 1.5 times of the grants-in-aid sought in case of applicant from general area.

(ii) shall infuse promoters’ equity of not less than 10% of the total project cost as against not less than 20% of the total project cost in case of applicant from general area

(iii) shall avail term loan of not less than 10% of the total project cost as against not less than 20% of the total project cost in case of applicant from general area

(iv) shall be eligible for availing grants-in-aid / subsidy at the rate of 50% of the eligible project cost as against 35% of the eligible project cost in case of applicant from general area.

ANNEXURE REFERRED IN REPLY TO PART (a) & (b) OF THE RAJYA SABHA UNSTARRED QUESTION NO. 1676 ANSWERED ON 13.02.2026 REGARDING “COLD CHAIN, WAREHOUSING AND POST-HARVEST LOSS REDUCTION”

Distribution of 302 completed cold chain projects approved under Cold Chain scheme and their associated storage facilities across the country:

Sr. No.	State	No. of completed/ Operational projects	No. of cold storage created	Cold storage capacity created in LMT
1	Andaman & Nicobar	1	2	0.010
2	Andhra Pradesh	23	28	0.440
3	Arunachal Pradesh	1	1	0.010
4	Assam	2	4	0.081
5	Bihar	3	1	0.366
6	Chandigarh	0	0	0.00
7	Chhattisgarh	2	3	0.085
8	D&N Haveli and DD	0	0	0.00
9	Delhi	0	0	0.00
10	Goa	0	0	0.00
11	Gujarat	23	25	0.522
12	Haryana	18	28	0.547
13	Himachal Pradesh	13	22	0.320
14	Jammu & Kashmir	5	5	0.053
15	Jharkhand	0	0	0.00
16	Karnataka	14	19	0.288
17	Kerala	4	5	0.417
18	Ladakh	0	0	0.00
19	Lakshadweep	0	0	0.00
20	Madhya Pradesh	8	12	0.190
21	Maharashtra	58	81	1.758
22	Manipur	1	5	0.029
23	Meghalaya	0	0	0.00
24	Mizoram	2	5	0.006
25	Nagaland	1	3	0.010
26	Odisha	5	6	0.119
27	Pondicherry	0	0	0.00
28	Punjab	21	39	0.566
29	Rajasthan	13	23	0.435
30	Sikkim	0	0	0.00
31	Tamil Nadu	15	36	0.349
32	Telangana	10	14	0.187
33	Tripura	0	0	0.00
34	Uttar Pradesh	20	38	0.622
35	Uttarakhand	27	61	1.009
36	West Bengal	12	25	0.689
	Total	302	491	9.108

ANNEXURE REFERRED IN REPLY TO PART (a) & (b) OF THE RAJYA SABHA UNSTARRED QUESTION NO. 1676 ANSWERED ON 13.02.2026 REGARDING “COLD CHAIN, WAREHOUSING AND POST-HARVEST LOSS REDUCTION”

State-wise Cold Storage facilities created as on 31.01.2025 in the country:

Sr. No.	State/UT	No. of projects	Cold Storage created (Capacity in MT) [as reported by Department of Agriculture & Farmers Welfare during 2025]
1	Andaman & Nicobar	4	2210
2	Andhra Pradesh &	480	1996340
3	Arunachal Pradesh	2	6000
4	Assam	43	206742
5	Bihar	316	1490200
6	Chandigarh	7	12462
7	Chhattisgarh	130	577663
8	Delhi	97	129857
9	Goa	29	7705
10	Gujarat	1023	4042770
11	Haryana	386	870703
12	Himachal Pradesh	89	181318
13	Jammu & Kashmir	92	151833
14	Jharkhand	59	242655
15	Karnataka	268	912417
16	Kerala	202	96655
17	Lakshadweep	1	15
18	Madhya Pradesh	320	1381827
19	Maharashtra	665	1219851
20	Manipur	2	4500
21	Meghalaya	4	8200
22	Mizoram	3	4071
23	Nagaland	5	8150
24	Odisha	182	579321
25	Puducherry	4	185
26	Punjab	770	2604206
27	Rajasthan	190	648908
28	Sikkim	2	2100
29	Tamil Nadu	188	399690
30	Telangana	116	617131
31	Tripura	14	46354
32	Uttar Pradesh	2488	15096476

Sr. No.	State/UT	No. of projects	Cold Storage created (Capacity in MT) [as reported by Department of Agriculture & Farmers Welfare during 2025]
33	Uttarakhand	62	206848
34	West Bengal	517	5952997
	Total	8760	39708360

(Source: Directorate of Marketing and Inspection (DMI) upto 2009, National Horticulture Board (NHB), National Horticulture Mission (NHM), Horticulture Mission for North East & Himalayan States (HMNEH)) and MoFPI)

ANNEXURE REFERRED IN REPLY TO PART (c) OF THE RAJYA SABHA UNSTARRED QUESTION NO. 1676 ANSWERED ON 13.02.2026 REGARDING “COLD CHAIN, WAREHOUSING AND POST-HARVEST LOSS REDUCTION”

Area-wise details of post-harvest losses of crops/ commodities as assessed in the NABCONS Study (2022)

Andhra Pradesh	
Product	Overall Total Loss (%)
Bajra	5.07
Banana	9.33
Black gram	5.56
Cashew nut	4.82
Chickpea	5.71
Chilli	7.06
Citrus	7.97
Coconut	4.32
Cottonseed	3.03
Egg	5.47
Green gram	6.17
Groundnut	6.58
Inland fish	4.68
Maize	5.98
Mango	7.9
Marine fish	8.5
Milk	0.58
Muskmelon	7.42
Paddy	5.73
Papaya	6.58
Pomegranate	8.69
Poultry Meat	7.39
Sorghum	5.67
Tapioca	N/A
Tomato	12.36
Turmeric	4.97

Assam	
Product	Overall Total Loss (%)
Cabbage	7.38
Egg	6.05
Meat	3.44
Mushroom	4.48
Paddy	6.07
Pineapple	7.11
Poultry Meat	6.61
Radish	5.14

Andaman & Nicobar Islands	
Product	Overall Total Loss (%)
Areca nut	6.44
Coconut	4.25

Bihar	
Product	Overall Total Loss (%)
Bottle gourd	7.35
Brinjal	7.52
Cabbage	8.7
Cauliflower	6.76
Green gram	6.06
Guava	15.36
Inland fish	5.99
Maize	5.83
Mango	10.1
Okra	6.27
Paddy	4.65
Pineapple	5.89
Potato	6.11
Radish	5.11
Sugarcane	8.99
Sunflower	5.18

Chhattisgarh	
Product	Overall Total Loss (%)
Bottle gourd	6.77
Guava	13.79
Paddy	3.92
Radish	6.66

Gujarat	
Product	Overall Total Loss (%)
Green gram	5.85
Bajra	4.41
Tomato	10.97
Cottonseed	2.93
Groundnut	5.31
Okra	5.79
Sapota	7.47
Cabbage	8.39
Cauliflower	7.99
Milk	0.5
Onion	7.57
Mustard	4.38
Potato	5.18
Wheat	5.18
Maize	5.18
Beans	6.65
Brinjal	6.99
Banana	7.59
Black gram	4.8
Papaya	5.81
Paddy	4.54
Pigeon Pea	4.27

Haryana	
Product	Overall Total Loss (%)
Bajra	3.77
Chickpea	5.66
Cottonseed	2.55
Egg	6.74
Meat	2.88
Milk	0.74
Mushroom	5.91
Mustard	4.52
Poultry Meat	4.63
Radish	7.51
Sugarcane	6.34
Sunflower	4.44
Wheat	4.37

Himachal Pradesh	
Product	Overall Total Loss (%)
Apple	9.2
Capsicum	5.74
Green Pea	6.35
Mushroom	6.01
Wheat	3.32
Maize	2.27

Jharkhand	
Product	Overall Total Loss (%)
Papaya	6.73

Jammu & Kashmir	
Product	Overall Total Loss (%)
Apple	9.51
Egg	6.08
Maize	3.92

Kerala	
Product	Overall Total Loss (%)
Areca nut	4.01
Black pepper	1.26
Cashew nut	3.07
Coconut	3.61
Egg	5.53
Marine fish	8.75
Meat	2.2
Poultry Meat	5.32
Tapioca	4.8

Karnataka	
Product	Overall Total Loss (%)
Areca nut	4.15
Bajra	5.03
Beans	7.33
Black pepper	1.31
Capsicum	5.75
Cashew nut	3.17
Coconut	3.78
Egg	5.64
Grapes	8.02
Inland fish	4.82
Maize	4.41
Marine fish	8.97
Onion	8.7
Pigeon Pea	4.57
Pineapple	3.73
Pomegranate	8.19
Safflower	3.1
Sorghum	5.69
Soybean	6.63
Sugarcane	4.84
Sunflower	4.22
Tomato	9.97
Turmeric	4.63

Madhya Pradesh	
Product	Overall Total Loss (%)
Bajra	4.53
Black gram	6.73
Bottlegourd	7.46
Capsicum	4.33
Cauliflower	6.46
Chickpea	5.85
Chilli	6.29
Citrus	7.4
Coriander	6.01
Egg	6.33
Green Pea	6.27
Groundnut	6.11
Guava	14.93
Maize	6.3
Milk	0.53
Muskmelon	5.76
Mustard	4.86
Okra	5.84
Onion	8.11
Paddy	4.2
Pigeon Pea	6.43
Potato	7
Sorghum	6.76
Soybean	7.36
Tomato	11.85
Wheat	4.94

Maharashtra	
Product	Overall Total Loss (%)
Bajra	4.21
Banana	6.06
Black gram	7.48
Chickpea	5.4
Citrus	8.79
Cottonseed	2.98
Eggs	5.55
Grapes	6.73
Green gram	5.9
Groundnut	6.16
Maize	5.3
Mango	8.61
Marine fish	8.8
Meat	2.78
Milk	0.65
Mushroom	9.24
Onion	6.78
Paddy	4.44
Pigeon Pea	6.9
Pomegranate	6.02
Poultry Meat	4.78
Safflower	3.02
Sorghum	6.16
Soybean	8.84
Sugarcane	8.61
Sunflower	4.93

Meghalaya	
Product	Overall Total Loss (%)
Tapioca	4.99
Turmeric	5.64
Cashew nut	4.53

Nagaland	
Product	Overall Total Loss (%)
Tapioca	5.42

Odisha	
Product	Overall Total Loss (%)
Bottle gourd	7.57
Brinjal	7.3
Cabbage	8.08
Cauliflower	7.65
Chickpea	6.09
Egg	6.63
Green gram	6.11
Inland fish	5.68
Marine fish	9.89
Mushroom	13.64
Okra	6.25
Paddy	4.17
Tomato	13.19

Punjab	
Product	Overall Total Loss (%)
Capsicum	4.31
Citrus	5.4
Green Pea	6.67
Maize	6.91
Milk	0.63
Mushroom	6.7
Muskmelon	5.48
Paddy	3.15
Potato	5.57
Sugarcane	4.38
Wheat	4.55

Rajasthan	
Product	Overall Total Loss (%)
Bajra	5.03
Black gram	5.74
Chickpea	5.83
Coriander	5.7
Cottonseed	2.53
Greengram	6.21
Groundnut	5.03
Maize	5.81
Milk	1.35
Mustard	4.75
Sorghum	6.01
Soybean	6.54
Wheat	6.25

Tamil Nadu	
Product	Overall Total Loss (%)
Banana	7.47
Beans	7.82
Black gram	5.93
Egg	6.6
Groundnut	5.31
Maize	4.39
Marine fish	9.14
Meat	3.04
Mushroom	11.03
Paddy	5.98
Poultry Meat	6.08
Sorghum	6.29
Sugarcane	8.65

Telangana	
Product	Overall Total Loss (%)
Chilli	6.06
Citrus	7.73
Cottonseed	3.04
Egg	5.36
Green gram	6.24
Groundnut	6.67
Maize	6.51
Meat	1.61
Pigeon Pea	5.01
Poultry Meat	8.12

Uttarakhand	
Product	Overall Total Loss (%)
Apple	11.5
Milk	1.16
Paddy	2.87
Sugarcane	5.46
Wheat	2.51

Uttar Pradesh	
Product	Overall Total Loss (%)
Bajra	4.11
Black gram	6.11
Bottle gourd	6.43
Egg	6.06
Green Pea	6.34
Inland fish	4.99
Maize	5.77
Meat	2.8
Milk	1.12
Mushroom	2.74
Muskmelon	7.25
Mustard	5.97
Paddy	4
Potato	5.82
Poultry Meat	7.24
Sugarcane	6.91
Wheat	6.36

West Bengal	
Product	Overall Total Loss (%)
Beans	5.48
Brinjal	7.85
Cabbage	8.71
Cauliflower	7.26
Eggs	7.07
Green gram	6.24
Groundnut	7.24
Guava	15.86
Inland fish	3.79
Maize	5.42
Marine fish	8.94
Meat	2.41
Milk	1.09
Mustard	6.21
Okra	6.05
Paddy	5.14
Pineapple	5.66
Potato	5.71
Poultry Meat	5.41
Radish	6.45
Sunflower	5.21
Wheat	6.13