

THE MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT (SHRIMATI D. PURANDESWARI): (a) to (d) The present National Policy is against commercialization of education. However, the Government favours the active support and involvement of the not-for-profit private participation for funding and management of educational institutions subject to reasonable surplus earned being ploughed back into the development of institutions. The Eleventh Plan document as approved by the National Development Council, also mentions the need to explore private sector initiatives and various forms of public-private partnerships (PPPs) in the education sector. There is a phenomenal growth in higher education with active participation by private peers. As regards litigation between students and management, Government has decided to introduce a Bill in the Parliament to establish a two-tier structure of Educational Tribunals at the State and National levels to adjudicate on the entire gamut of disputes arising in higher education.

Cases of intellectual property rights of Indian crops

3076. SHRI VIJAY JAWAHARLAL DARDA: Will the Minister of AGRICULTURE be pleased to state:

- (a) the number of intellectual property rights cases of Indian crops filed during 2007 and 2008;
- (b) the number of cases contested relating to property rights during 2007 and 2008;
- (c) the number of cases which were decided in India's favour; and
- (d) whether any study has been made to find out reasons of mounting cases of intellectual property rights being contested since 2006?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) and (b) No information is available with Government of any case filed abroad relating to intellectual property right of Indian crops during 2007 and 2008.

(c) and (d) Do not arise.

Damage of crops

†3077. SHRI KAPTAN SINGH SOLANKI: Will the Minister of AGRICULTURE be pleased to state:

- (a) whether it is a fact that every year crops of Rs. 560 billion get damaged due to lack of harvesting, sorting and proper maintenance;
- (b) if so, the details thereof;
- (c) whether the damage is equal to the Central subsidy being given every year;
- (d) whether Government have made any plan to tackle it; and
- (e) if so, the details thereof?

†Original notice of the question was received in Hindi.

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) An assessment of harvest and post harvest losses of major agricultural crops and livestock produce at national level has been carried out by the cooperating centres of All India Coordinated Research Project (AICRP) on Post Harvest Technology (PHT) based on 2007-08 production. The economic value of the harvest and post harvest losses estimated in this study at national level has been computed to be about Rs. 44,100 crores per annum (based on May, 2009 prices).

(b) Estimated crop-wise losses and their estimated economic values are given in Statement-I (Table 1 and Table 2) (See below).

(c) Assistance is provided under grant-in-aid head of various crop developmental schemes of Department of Agriculture and Cooperation (DAC). The total annual budget allocations and grant-in-aid, made during the Eleventh Five Year Plan Period have been as follows:—

Year	Annual budget (Rs. crores)	Grant-in-aid (Rs. crores)
07-08	6927.94	5860.09 (Actuals)
08-09	9865.68	8416.26 (Actuals)
09-10	10965.23	9185.13 (RE)
10-11 (BE)	15042.00	13642.54 (BE)

(d) and (e) A number of technologies have been developed to reduce losses of different agricultural commodities after harvest and during storage by ICAR Institutes and AICRP on Post Harvest Technology. Some of the important technologies developed are given in Statement-II.

Statement-I

Estimated crop-wise losses and their estimated economic values

Table 1

Harvest and Post-harvest losses in food crops

Food Crops	Extent of Loss, %
Cereals	3.9-6.0
Pulses	4.3-6.1
Oilseeds	2.2-10.1
Fruits	5.8-18.0
Vegetables	6.8-12.5
Spices and condiments	3.6-6.8
Plantation crops	1.1-8.7

Table 2
Estimate of the economic value of harvest and post harvest losses

Crop/commodity	Production, million tonnes*	Price Rs./tonne**	Losses estimated %	Estimate of economic value of the losses Rs. crores	Total economic loss in the sector Rs. crores
1	2	3	4	5	6
(i) Cereals					12593
1. Paddy	96.43	11507.6	5.2	5770	
2. Wheat	78.4	11376.1	6	5351	
3. Maize	19.3	9336.7	4.1	739	
4. Bajra	9.7	8760.4	4.8	408	
5. Sorghum	7.78	10695.7	3.9	325	
(ii) Pulses					1735
1. Pigeon Pea	3.09	40608.6	5.4	678	
2. Chick Pea	6.91	23549.9	4.3	700	
3. Black Gram	1.058	27633.5	6.1	178	
4. Green Gram	0.916	35437.7	5.5	179	
(iii) Oilseeds					5107
1. Mustard	5.8	24267.6	8.9	1253	
2. Cottonseed	2.9	14750	2.8	120	
3. Soybean	9.99	24457.8	6.2	1515	
4. Safflower	2.17	21421.2	3.7	172	
5. Sunflower	1.44	20199.9	4.5	131	
6. Groundnut	9.36	20270.8	10.1	1916	
(iv) Fruits					7437
1. Apple	1.622	47771.6	12.3	953	
2. Banana	20.858	9262.5	6.6	1275	
3. Citrus	7.097	18774.6	6.3	839	
4. Grapes	1.668	31364.2	8.3	434	
5. Guava	1.856	12194.5	18	407	
6. Mango	13.501	19232.2	12.7	3298	
7. Papaya	2.405	8833.3	7.4	157	
8. Sapota	1.191	10727.5	5.8	74	

	1	2	3	4	5	6
(v) Vegetables						5872
1. Cabbage	5.724	5498.9	6.9	217		
2. Cauliflower	5.524	8211.7	6.8	308		
3. Green Pea	2.37	23010.8	10.3	562		
4. Mushroom	0.037	33475	12.5	15		
5. Onion	10.655	7349.9	7.5	587		
6. Potato	30.195	9679.4	9	2630		
7. Tomato	9.878	8139.1	12.4	997		
8. Tapioca	8.429	6725.5	9.8	556		
(vi) Spices and plantation crops						5764
1. Arecanut	0.0559	71866.8	7.9	32		
2. Black Pepper	0.069	113106	3.9	30		
3. Cashew	0.62	127192.7	1.1	87		
4. Chilli	0.0117	14380.8	5.6	1		
5. Coconut	4.06	29591	5.4	649		
6. Coriander	0.2332	20571.2	7.3	35		
7. Sugarcane	355.52	1489.59	8.7	4607		
8. Turmeric	0.837	52102.1	7.4	323		
(vii) Livestock produce						5635
1. Egg [†]	50.7	1520	6.6	509		
2. Inland Fish	3.845	73432.8	6.9	1948		
3. Marine Fish	3.024	73432.8	2.9	644		
4. Meat	2.869	109600	2.3	723		
5. Poultry Meat	2.02	37120	3.7	277		
6. Milk	100.9	19000	0.8	1534		
Total economic value of the losses of crops and livestock produce level at national						44143

*All India production for the year 2007-08 in case of durables (food grains, pulses and oilseeds) and for the year 2006-07 in case of perishables (fruits, vegetables, livestock produce). (Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Government of India).

**Wholesale price of the crop/commodity for the month of May, 2009. (Source: Directorate of Marketing and Inspection, Department of Agriculture and Cooperation, Government of India).

[†]Egg production in billion numbers, price in Rs. per thousand eggs.

Statement-II

List of important technologies developed by ICAR Institutes and AICRP

1. Low cost basket centrifuge for minimal processing
 2. Evaporative cooled storage structures
 3. Mobile cool chamber
 4. Shrink packaging of fruits and vegetables
 5. Low cost vegetable and fruit grader
 6. Mechanical device for detection of insects in stored grains
 7. Mini dal mill
 8. Maize sheller cum sun flower thresher
 9. Pedal operated grain cleaner grader
 10. Groundnut decorticator
 11. Solar cabinet dryer for vegetables
 12. On-farm fruit grader
 13. Single drum rotary screen grain pre cleaner
 14. Farm level fruit and vegetable washing machine
 15. Technology for ginger and turmeric processing
 16. Threshers for different crops
 17. Vertical conveyor reapers
 18. Air screen grain cleaner cum grader
 19. Different types of house hold grain bins
 20. Solar tunnel dryer
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Private investment to link farmers with consumers

3078. SHRI GIREESH KUMAR SANGHI: Will the Minister of AGRICULTURE be pleased to state:

- (a) whether any proposal to invite private sector investment is under consideration of Government in schemes to link farmers to the consumers directly;
- (b) if so, the details thereof; and
- (c) by when, such proposal is likely to be operationalised?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) to (c) Yes, Sir. The Central Government has circulated Model Agricultural Produce Marketing (Development and Regulation) Act, 2003 to the States for their adoption. The Model Act has provisions of contract farming, direct marketing and setting up