

Bharmore area of Chamba, Shimla, Kullu and Kangra districts of Himachal Pradesh during March, 1990:

(b) if so, whether State Government sought any relief from Union Government; and

(c) if so, the details of relief sought and provided by Union Government?

THE DEPUTY PRIME MINISTER AND MINISTER OF AGRICULTURE (SHRI DEVI LAL): (a) No report of damage to crops, roads, dislocation of water supply and loss of life and property due to snowfall, hailstorms and rains during March 1990 has been received from the Government of Himachal Pradesh.

(b) and (c). No Memorandum seeking Central assistance has been received from the State Government.

'Johal Committee' Recommendations

5684. S. ATINDER PAL SINGH: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government have made any study about the adverse effect of rotation of rice and wheat crop on environment and employment to farmers;

(b) if so, the details thereof;

(c) if not, when the study is likely to be made;

(d) whether 'Johal Committee' has made some recommendations to bring variety in farming in Punjab;

(e) if so, the details thereof and the action taken to implement those recommendations;

(f) whether 'Johal Committee' had also recommended 20 to 25 per cent reduction in the area under rice and wheat cultivation;

(g) if so, the names of the crops recommended by the committee for cultivation in this area; and

(h) the action taken thereon?

THE DEPUTY PRIME MINISTER AND MINISTER OF AGRICULTURE (SHRI DEVI LAL): (a) At the instance of Government of Punjab study has been made by the expert Committee under the Chairmanship of Dr. S.S. Johal on the diversification on agriculture in Punjab which *inter alia* includes the effect of rotation of rice and wheat crop on environment and return to the farmers.

(b) The Committee in its findings have observed that the rice crop during kharif and wheat crop during rabi have gained the area on the merits of their return per acre as compared to the crops like maize, pulses, cotton, gram, rapeseed and mustard, barley etc. However, the predominance of paddy-wheat rotation has far-reaching implication on the water balance, deterioration in soil health, proliferation of pests and diseases, intensive use of energy leading to threat of deterioration in the over all agro-ecosystem of the State. Increased area under paddy had led to the lowering of water table. The physical condition of soil has undergone changes due to continued puddling in the paddy fields. As both paddy and wheat have high nutritional requirements, there is depletion of nutrients season after season. There has also emerged a problem of micro-nutrient deficiency in light textured soils particularly of iron in paddy and manganese in wheat crop.

(c) Question does not arise.

(d) and (e). The Johal Committee in its recommendation has suggested for the diver-

fication of rice and wheat crops to arhar, moong, cotton, soyabean, sugarcane, sugarbeet etc. Besides, the diversification of crops, the Committee has also recommended for the development of Livestock Enterprises, Expansion of Horticulture, Forest cropping, Development of processing plants for vegetables and fruits and wood processing industry in the State. The improved crop production technology is being propagated through the extension system and farmers are being motivated for diversification of farming system.

(f) The Committee has recommended 20% of the area under wheat and rice cultivation to be replaced with other farm enterprises.

(g) Soybean, Cotton, Sugarcane, Arhar, Moong, Vegetable crops, fruits and timber trees etc. are recommended by the Committee.

(h) The State is taking suitable action to promote the cultivation of these recommended crops through the extension system.

Paddy Transplanter Machine Imported by Punjab Agriculture University

5685. S. ATINDER PAL SINGH: Will the Minister of AGRICULTURE be pleased to state:

(a) whether the Punjab Agriculture University had imported a prototype Paddy transplanter in 1985;

(b) whether it was found suitable for the farmers of Punjab after a field test;

(c) whether the University had recommended to develop it commercially so that it could be made available to farmers;

(d) if so, the progress made so far in this

regard;

(e) whether the manufacture of this machine has commenced;

(f) if so, the names of the firms which have started manufacturing it in accordance with model approved by the University indicating the number of such machines manufactured by them so far; and

(g) if not, the reasons therefor?

THE DEPUTY PRIME MINISTER AND MINISTER OF AGRICULTURE (SHRI DEVI LAL): (a) Yes, Sir.

(b) No.

(c) No.

(d) to (g). Questions do not arise.

[English]

Development of Calcutta Port

5686. SHRI SANAT KUMAR MANDAL: Will the Minister of SURFACE TRANSPORT be pleased to state:

(a) whether any plan for the improvement and development of Calcutta Port has been drawn up;

(b) if so, the broad features thereof including the capital outlay involved along with the amount expected to be financed by Union Government and through intercorporate loans; and

(c) the progress so far made on the development work on container terminal at Calcutta Port?

THE MINISTER OF SURFACE TRANSPORT AND MINISTER OF COMMUNICATIONS (SHRI K.P. UNNIKRI SHNAN): (a)