

vaccine from Coonoor so that the people may seek alternative methods to try to spare themselves from its spread? There is a lot of illusion about it that the vaccine is coming from Coonoor.

SHRI D. P. KARMARKAR: People should not be in that confusion and I may tell the House that we should not rely upon that vaccine because we are not sure of the new epidemic that might come and we cannot rely upon the vaccine that we might prepare now to combat that new epidemic and the strain may not be the same strain. Otherwise the disease will be one and the vaccine will be another.

SHRIMATI T. NALLAMUTHU RAMAMURTI: It is a new discovery that the largest number of cases occur in congested areas. People living in good localities and in large bungalows have been affected by this.

SHRI D. P. KARMARKAR: Yes, Sir, Unhappily those people go to cinemas and the like and fall a victim.

SHRIMATI YASHODA REDDY: The hon. Minister said that a large sum may have to be spent on foreign exchange to get foreign medicine but, Sir, does the Government know that many suggestions have been made by the Ayurvedic doctors about indigenous medicines? Has the Government taken any action to investigate them or has the Government given any thought to it?

SHRI D. P. KARMARKAR: Sir, whenever any suggestion is made regarding any foolproof remedy for any ailment we have it carefully examined, but it is my misfortune to tell this House that not one remedy that is suggested can be accepted as a remedy in this case because it is no foolproof remedy.

SHRI D. A. MIRZA: Cannot mass inoculation be given to minimise the range of the epidemic.

(No reply.)

SHRI D. A. MIRZA: We want an answer, Sir.

MR. CHAIRMAN: It cannot be done with success.

### आन्तरिक जलमार्गों के लिए ठोस योजना

\*२७४. श्री नवाब सिंह चौहान : क्या परिवहन तथा संचार मंत्री यह बताने की कृपा करेंगे कि देश में आन्तरिक जलमार्गों के विकास की ठोस योजना को क्रियान्वित करने में अब तक कितनी प्रगति हुई है?

#### t [MASTER PLAN FOR INLAND WATERWAYS

\*274. SHRI NAWAB SINGH CHAUHAN: Will the Minister of TRANSPORT AND COMMUNICATIONS be pleased to state the progress so far made towards the implementation of the Master Plan for the development of inland waterways in the country?]

परिवहन तथा संचार मंत्रालय के राज्य मंत्री (श्री हुमायूँ कबीर): सेंट्रल वाटर एण्ड पावर कमिशन ने देश के अन्दरूनी जलपथों के विकास के लिये जो मास्टर प्लान बनाया, वह प्लान का खाली ढांचा है। इस योजना को काम में लाने के सवाल पर विचार करने से पहले काफी जांच-पड़ताल दरकार होगी। सरकार ने जो इन्वैण्ड वाटर ट्रांसपोर्ट कमिटी मुकर्रर की उनको कहा गया कि मास्टर प्लान को विचार करके अपनी सिफारिशें दें। कमिटी की इन्क्वायरी अभी जारी है।

[THE MINISTER OF STATE IN THE MINISTRY OF TRANSPORT AND COMMUNICATIONS (SHRI HUMAYUN KABIR): The Master Plan for the development of inland waterways prepared by the Central Water and Power Commission is only an outline plan. Detailed investigations are necessary before the question of its implementation can be considered. The Committee on Inland Water Transport

f [ ] English translation.

appointed by Government have been requested to examine the Plan and make their recommendations. Their enquiry is at present in progress.]

**श्री नवाब सिंह चौहान :** यह ढांचा क्या है? क्या मेहरबानी कर के इसके बारे में कुछ बतायेंगे?

**श्री व्यं० कृ० दत्त :** अंग्रेजी में बतलाइये।

SHRI HUMAYUN KABIR: All right; I will answer in En "r

कोई एतराज नहीं है?

**श्री नवाब सिंह चौहान :** कोई एतराज नहीं है।

SHRI HUMAYUN KABIR: The Master Plan which has been prepared proposes on the one hand to connect all the river systems- of the country. There is a proposal to connect the Ganga-Brahmaputra system with the Mahanadi, with the Nerbada, and then with the Godavari and then with the Krishna and the Cauveri so that there is continuous inland water transport through the river systems. The second big<sup>s</sup> suggestion in the Master Plan is to have a coastal inland canal connection right from Calcutta up to Trivandrum and beyond. Now obviously it can onlv be an outline plan at this stage and the execution of a plan like this will require a great deal of detailed investigation. In certain cases the river connections may require the digging of canals and the building of aams. Some locks may have to be put up at a height of 1,500 feet or so. The different levels will have to be compared. Rocky areas will have to be explored and therefore at this stage, it is nothing beyond an outline plan.

SHRI P. S. RAJAGOPAL NAIDU: Is there any proposal to develop the Buckingham Canal which connects Madras with the river Krishna?

SHRI HUMAYUN KABIR: The hon. Member is probably aware that this is one of the items which we have taken up during the Second Five Year Plan. Technical investigations so far as Andhra Pradesh is concerned were finished some time ago. So far as the Madras State is concerned that also has been completed and now investigations are in progress for connecting; the canal with the Madras Harbour.

SHRI HUMAYUN KABIR: There is at

**श्री नवाब सिंह चौहान :** इस बारे में जो सर्वे का कार्य होने वाला था वह कितना हो गया है? और कुछ लोग विदेश भी जाने वाले थे तो जो दल विदेश जाने वाला था वह क्या हो आया है?

present no question of sending anybody abroad for this purpose because the investigations will have to be carried out here, and the surveys have started. I may add for the information of the House that during the Second Five Year Plan all that we intend at present to do is not to excavate new waterways but to improve the existing ones and therefore the two broad plans which have been taken in hand are: improving the Ganga-Brahmaputra system and improving the Buckingham Canal. ■

SHRI H. N. KUNZRU: When the Central Water and Power Commission drew up this Master Plan, did it not go into the details of that plan to see whether it was at all feasible?

SHRI HUMAYUN KABIR: Sir, they have themselves said that very detailed investigations will be necessary. I am not a technical expert but from what I have read of the report, they have apparently not gone into those details yet and we have asked that this may be referred to the Inland Water Transport Committee.

SHRI H. N. KUNZRU: But what I should like to know is what it is that the Central Water and Power Commission have done. Have they contented themselves with merely drawing certain lines on the map connect-

ing, for instance, the Narbada and the Ganga and so on? Have they done any detailed work to show that that plan is Arorth serious consideration?

SHRI HUMAYUN KABIR: According to the information available with me, this report was submitted to the Ministry of Irrigation and Power; they have depended on the old gazetteers, and in many cases the old gazetteers do not reflect the existing state of affairs, and therefore the Commission has suggested that fresh surveys will be needed.

SHRI H. N. KUNZRU: Is it intended to reduce irrigation in order to make these rivers more navigable?

SHRI HUMAYUN KABIR: That also may be in the background of the mind because there are certain rivers which with multipurpose projects can be made navigable. For instance the river Narbada is at present navigable only up to a distance of 30 to 40 miles and with some improvement it can probably be made navigable up to a hundred miles. Beyond that there are ravines and therefore unless there are very large-scale irrigation projects and dams constructed and the water flow controlled, it will not be possible to navigate the Narbada. On the other hand, a river like the Mahanadi can be made navigable with *p.* small effort.

SHRI H. N. KUNZRU: Will the river Mahanadi become navigable as a result of the construction of the Hira-kud Dam?

SHRI HUMAYUN KABIR: That will certainly help.

SHRI H. N. KUNZRU: Has any scheme of navigation been formulated?

SHRI HUMAYUN KABIR: A general outline has been made and the suggestion is that at the first stage the sandy tract of the Mahanadi River which is roughly about 160 or 170 miles can be made navigable.

MR. CHAIRMAN: You started the Mahanadi business; he never asked for it.

SHRI HUMAYUN KABIR: But I have to satisfy the hon. Member.

SHRI RAGHAVENDRARAO: May I know whether the report will be placed on the Table of the House?

SHRI S. C. DEB: May I know how long this Committee will take to complete the investigation?

SHRI HUMAYUN KABIR: A detailed survey of the whole of the Master Plan is bound to take at least 15 to 20 years because as I said there are very serious problems involved and many competing claims on our resources.

SHRI RAGHAVENDRARAO: May I get an answer to my question?

MR. CHAIRMAN: He asks whether the Report will be placed on the Table of the House.

SHRI HUMAYUN KABIR: The Report was not submitted to this Ministry but I shall enquire from my colleague and if he is willing I shall certainly have it so placed.

SHRI B. K. P. SINHA: Is it not a fact that the channels of the Ganga and Gandak and other rivers near Patna are silting up and that they shall not be navigable after three years?

SHRI HUMAYUN KABIR: The hon. Member is probably aware that in the second Five Year Plan we have already made provision for dredgers so that the service in the Ganga can be maintained.

SHRI B. K. P. SINHA: Will that be after five years?

SHRI HUMAYUN KABIR: Very much before that I hope.

SHRI P. C. BH AN J DEO: May I know what, according to the preliminary survey report, is the estimated cost of the Master Plan?

SHRI HUMAYUN KABIR: As far as I am aware, the cost has not been worked out.

DR. RAGHUBIR SINH: In view of this long-drawn out Plan spread over 15 years, can't we prepare a reasonable Plan which can open up inland waterways at less cost and in less time?

SHRI HUMAYUN KABIR: I have to repeat what I have already said. During the second Five Year Plan, we have made provision for two programmes. One is the improvement of the Ganga-Brahmaputra river system and the other is to improve the Buckingham Canal and some of the other allied canals so that there may be inland canal navigation along the coast. And these two things, I expect, will be done soon.

#### -SUBSTITUTION OF CEMENT BY POZZOLON

\*275. SHRI MAHESWAR NAIK: Will the Minister of IRRIGATION AND POWER be pleased to state:

(a) whether it is a fact that cement is sought to be substituted by Pozzolon in constructions;

(b) if so, the economies expected from the use of Pozzolon; and

(c) the steps taken by Government for popularising Pozzolon?

THE DEPUTY MINISTER OF IRRIGATION AND POWER (SHRI J. S. L. HATHI): (a) Yes, Sir, to some extent.

(b) 20 to 25 per cent, of saving in the total quantity of cement.

(c) The use of Pozzolon has been recommended to State Governments and Project authorities for use wherever feasible.

DR. P. V. KANE: What is Pozzolon? We do not know that.

MR. CHAIRMAN: They are all learning these technical things, Mr. Kaxmarkar about Influenza Vaccine, Mr. Kabir about inland water navigation and Mr. Hathi about Pozzolon.

SHRI J. S. L. HATHI: Pozzolon can be defined to be an adhesive material which possesses the properties of cement. It can develop the property of cement at low temperatures. When it is mixed with lime and water, it is something like burnt brick ashes, ashes from the furnace. It possesses the property of cementing the lime and can give strength equivalent to that of cement. That is Pozzolon.

SHRI MAHESWAR NAIK: Which are the places where this commodity has been tested so far?

SHRI J. S. L. HATHI: It is being tested in the laboratories attached to the various projects.

SHRI MAHESWAR NAIK: What is the efficacy so far obtained?

SHRI J. S. L. HATHI: The efficacy is that it gathers the same strength as cement after six months; whereas cement can gather that strength after 28 days, this Pozzolon gathers that strength after six months. Wherever you do not require immediate strength you can use this Pozzolon. You can only mix that up to 20 to 25 per cent. That is the maximum use that it can be put to. Of course, cement cannot be wholly replaced by this material.

SHRI MAHESWAR NAIK: Is it under the manufacture of the Ministry?

SHRI J. S. L. HATHI: There is a plan for manufacturing it at Bhakra.

SHRIMATI YASHODA REDDY: Have you used it at Bhakra Dam site and if so how much have you saved by its use?

SHRI J. S. L. HATHI: Its cost is Rs. 65 per ton as compared to Rs. 93 per ton of cement and we can only substitute that up to 25 per cent.

SHRI M. GOVINDA REDDY: May I know whether this new substance is being made use of because of nonavailability of adequate quantities of