



Government of West Bengal
Irrigation and Waterways Department

Final Report
of
The West Bengal Flood Enquiry
Committee, 1959

Volume I
(Report)

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Nota Bene:

Datum—Unless otherwise stated, all levels mentioned in this Report refer to Public Works Department datum.

Glossary of Local Terms used in the Report

"Ailes or Aile bund"	...	Dwarf embankments around paddyfields to hold up water and demarcate same.
"Beel" and "Jala"		A tract of low wet land, Marsh or Swamp.
"Boro"	Winter variety of paddy.
"Bund"	Embankment.
"Bunded"	Embanked.
"Ring bunds" and "Gher bunds"	Circuit embankments.
"Daha"	A low long depression formed by abandoned course of a river.
"Hanas"	Breaches on bank of rivers through which water flows during floods in the river.
"Khals"	Channels.
"Nullah"	Channel, drain.
"Nikashi"	Main outlet drain.

No. 2132C.I.(F)

FROM SARDAR MAN SINGH, I.S.E. (retired), CHAIRMAN, WEST BENGAL
FLOOD ENQUIRY COMMITTEE, 1959,

TO THE SECRETARY, WEST BENGAL FLOOD CONTROL BOARD, GOVERN-
MENT OF WEST BENGAL.

Calcutta, the 30th May 1962.

DEAR SIR,

In continuation of Member-Secretary's letter No. 617, dated 27th June 1960, with which the Preliminary Report of the Committee was submitted to you in June 1960, I beg to submit herewith the Final Report of the Committee. The Report was scheduled to be submitted at the end of 1960, but has had to be delayed for reasons explained in Chapter 1.

2. The terms of reference to the Committee were—

- (a) to enquire into and determine the causes of the 1959 floods in the districts of (i) Midnapore, (ii) Howrah, (iii) Hooghly, (iv) Burdwan, (v) Birbhūm, (vi) Bankura, (vii) Purulia, (viii) Nadia, (ix) Murshidabad and (x) 24-Parganas ;
- (b) to make an assessment of the effects of these floods ;
- (c) to ascertain if the intensity of the floods in the river valley areas could have been reduced by proper regulation of releases from the dams ;
- (d) to suggest remedial measures for the purpose of preventing recurrence of such floods in future ;
- (e) to indicate broadly in order of priority schemes for flood control and flood protection-river-wise, basin-wise, or area-wise as the case may be.

Terms (a), (b) and (c) were dealt with in the Preliminary Report. This Final Report deals in detail with terms (d) and (e).

3. Unlike the Preliminary Report, this report is not a unanimous one. Two members have added minutes of dissent which appear at the end of the report. Both members are nominees from the State of Bihar. There appear to be no valid technical reasons for the minutes as will be clear from the comments in the following paragraphs :

4. Shri D. Mookerjea has merely expressed his dissension with the views of the rest of the Committee in para. 9.4.3. in Chapter 9 in para. 11.5 in Chapter 11 and sub-para. 26 of para. 16.6.1 in Chapter 16 without giving any reasons. In a note on one of the draft Chapters of the report towards the concluding stages of the Committee's work Shri Mookerjea had suggested an alternative with regard to the recommendation in para. 9.4.3 of Chapter 9 in which the Committee have recommended investigations for a storage and detention reservoir in the upper catchment of the Ajoy river. The suggestion was that the river Mayurakshi be diverted into the Ajoy and the combined streams of the Mayurakshi and the Ajoy diverted through a cut from near about Pandaveswar to the Damodar somewhere near Durgapur. (All these works to be within the State of West Bengal.) He said that such a diversion would ease the situation in the Bhagirathi as well as improve the condition of the lower Damodar. All the data for examining the suggestion in detail were not available but from the intimate local knowledge possessed by some of the members it was felt that the proposition was not a feasible one. In the first place rain storms in the Damodar, Ajoy and Mayurakshi valleys almost always synchronise so that the

diversion of the latter two into the Damodar will considerably worsen conditions in the lower Damodar and there will be disastrous floods in Trans-Damodar area almost every year. The area between the Ajoy and the Damodar is strewn with collieries and is very undulating. Diversion channel through this area will entail a large number of technical difficulties. Besides, with the Steel Plant and Power Station being put up at Durgapur the area all round is getting rapidly industrialised so that it would not only be physically but also economically a difficult project to undertake. If such a diversion were possible into the Maithon reservoir above, some good could accrue as, perhaps the water shortage being felt at present in the reservoir for the purposes of generation of power and supply of flushing doses for the lower Damodar could be got over. But this again would need investigation and even if found feasible would have the same drawback to counter which the suggestion was made, that is, a suitable site for a detention reservoir would still be necessary on the Ajoy in the State of Bihar.

5. In the Preliminary Report in Paragraph 5.14.1 (ii) in Chapter 5 almost similar recommendation was made. Shri D. Mookerjee subscribed to that recommendation. Curiously enough he is unable now to recommend an investigation and survey for a suitable site!

6. His two other objections relate to the same recommendations—the one in Chapter 16 is a repetition of what has been said in Chapter 11. Shri Mookerjee subscribed to the designed flood reserve in the two reservoirs in the Damodar Valley being kept inviolate. His objection is only to specification of levels in the relevant paragraphs. This again is curious. Only reserving a quantum of volume in the reservoirs without regard to their actual position cannot yield the result desired from the reserve. The reserve is always calculated on the basis of what the undersluices and spill-ways can discharge. Unless therefore the reserve is available between certain specific levels it cannot obviously serve the purpose for which it is meant. It would not be out of place to mention that while these reserves were agreed to by the technical representatives of the three participating Governments in 1951, the specific levels up to which the spill-way crests and the dam crests were to be constructed must also have been agreed upon. The dams have been constructed accordingly. Unless therefore the lands on the periphery of the reservoirs are acquired up to the designed levels the habitations there will be unnecessarily exposed to the danger of submergence or the expenditure incurred in construction of the dams would be infructuous and the main purpose of flood control impossible to achieve. D.V.C. are understood to be fully alive to the necessity and are already pursuing the matter. The objection of Shri Mookerjee becomes, therefore, more difficult to understand.

7. Mr. Prasad's note of dissent was actually sent and subscribed by Shri B. L. Singh who continued to be a Member of the Committee from 23rd September 1960 to 21st May 1962. Of the 10 meetings held during this period Shri Singh attended 6 meetings and took part in discussing the various matters which came up before the Committee. The 2nd sentence of the first paragraph therefore becomes rather difficult to understand. On 22nd May this officer was transferred to another assignment in Bihar and Mr. Prasad who had taken over from him as Chief Engineer, Irrigation, North Bihar, on 6th March 1962 took over the charge of this office also. Mr. Prasad therefore attended only the last two meetings of the Committee and although he may have gone through the minutes of the previous meetings had not had the opportunity of discussing any of the problems referred to in the Committee meetings. He has merely substituted his name in place of Shri B. L. Singh. However, his objections are to the same two recommendations as Shri Mookerjee's, although he proceeds to give some reasons for his dissent.

8. He suggests that the flood problem of the Ajoy can be solved by embanking it as is being done in the case of so many rivers in Bihar. In the case of the Ajoy the problem is not merely of floods but also that of sand brought down by it as well their effect on the Bhagirathi-Hooghly whose capacity of the outfall is very limited. The suggestion of obtaining relief by construction of embankments has been fully examined and the views of the Committee have been expressed in para 9.4.3.1 to which Shri Prasad has given no answer. In para. 3.3 he and his predecessors have subscribed to the view that the embankments as a measure of protection from flood are not desirable in deltaic Bengal and yet where the Ajoy is concerned he suggests taking recourse to embankments! Remedies which may be good enough for conditions in Bihar may not be so in lower areas of Bengal and in the case of the Ajoy, they certainly are not.

9. It is true enough that the irrigation projects in contemplation in the upper valley of the Ajoy together with the soil conservation measures will be useful in reducing the silt load in the river but owing to the very small sizes of reservoirs proposed and comparatively very small catchments which will be intercepted, the effect of the proposed irrigation schemes in reducing the silt charge and the discharge in the river lower down will be negligible. A sizable reservoir lower down in the valley is a necessity. But at any rate investigations and surveys for its location should do no harm to any interest.

10. The arguments against acquisition of lands on the upper periphery of the reservoir at Panchet and Maithon have been dealt with in paragraph 6 above. Shri Prasad has brought in the additional argument of human problem involved which in view of what has happened in the case of these two projects would appear to be outdated. If anything, the human problem has been aggravated by vacillating attitudes adopted in the case of these reservoirs. Besides, no project, however small, in which land acquisition becomes necessary, would be devoid of the human problems of the variety referred to by Shri Prasad. In deciding whether such projects should go through or not, the fact as to whether the works are going to be of benefit to a larger number than the number likely to be adversely affected has always to be given its due weight.

11. The reasons for the minutes of dissent have therefore to be looked for elsewhere. You would recollect that I made a reference to you in my D.O. No. 82 of 7th March 1960, in which I gave my view that the Government of West Bengal had selected various Members of this Committee in order to obtain their technical appreciation of the problems confronting the State and their solutions. This view was confirmed by the Chief Minister and he very kindly wrote to the then Chief Minister of the State of Bihar requesting him to let nominees of that State give their unfettered technical views on the various problems which the Committee would have to deal with. The late Chief Minister of Bihar unfortunately did not agree but advanced his own reasons for the nominations from Bihar. According to him the nominees from that State to be useful had to put before the Committee the likely human problems and the likely reactions of Bihar Government to any proposals which might be made. If this were not so, Govt. of West Bengal would very well replace these Chief Engineers by others from some other States. To my mind nomination of Engineers from Bihar was more to take advantage of their knowledge and experience of conditions in the contiguous State of Bihar than just expert knowledge to deal with flood problems only for which experts from other States or other countries could indeed have been selected. This appears to be obvious as the Officer of India Meteorological Department and Engineers from Railway etc., were also nominated from the local regions rather than top men

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from other regions. With this background it is suggested that the nominees from Bihar could not but add the minutes of dissent, may be under the misconception that they were doing so in the interest of the State of Bihar.

Yours faithfully,
MAN SINGH,
Chairman.