

GOVERNMENT OF MAHARASHTRA



सत्यमेव जयते

**Maharashtra State
Irrigation Commission
REPORT**

1962

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1962

PERSONNEL OF THE COMMISSION

1. Shri S. G. Barve, Minister for Finance, *Chairman.*
Government of Maharashtra.
2. Shri D. R. Gadgil, Director, Gokhale Institute *Member.*
of Politics and Economics, Poona.
3. Shri M. L. Champhekar, M.E., M.I.E., I.S.E. *Member.*
(Retd.), formerly Chief Engineer, Govern-
ment of Bombay.
4. Shri Annasaheb P. Shinde, Parliamentary *Member.*
Secretary, Ministry of Food and Agricul-
ture, Government of India.
5. Shri Datta A. Deshmukh, Sangamner, District *Member.*
Ahmednagar.
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7. Shri K. G. Deshmukh, Amravati *Member.*
8. Shri Sripatrao L. Kadam, Deputy Minister *Member.*
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Maharashtra.
9. Shri Shankarrao B. Patil, Deputy Minister for *Member.*
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10. Shri S. P. Mohite, I.A.S., Agriculture Com- *Member.*
missioner, Maharashtra State.
11. Shri G. N. Pandit, B.Sc. (Lond.), M.I.E., *Member.*
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Maharashtra State.
12. Shri D. A. Gadkary, B.E., M.S.E. (I) (Retd.), *Member and*
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Maharashtra State. *Secretary.*
13. Shri S. K. Bedekar, I.A.S. *Secretary.*

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3. Shri S. P. Gothoskar, M.Sc., Research Officer.
4. Shri B. G. Jambhale, D.C.E., M.S.E. (II), Deputy Engineer.
5. Shri K. S. Upalavikar, B.E., M.S.E. (II), Deputy Engineer.

EXPENDITURE INCURRED ON THE MAHARASHTRA STATE
IRRIGATION COMMISSION

		Rs.
1.	Pay and allowances of staff ..	1,16,500, (Approx.)
2.	Travelling allowances of members, staff and witnesses	28,500, (Approx.)

	Total ..	1,45,000, (Approx.)

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ERRATA

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- 126 Line 23 .. *Read* full stop after "area is irrigated".
- 134 Line 26 .. *Delete* comma after "was available".
- 138 Column 11 .. *For* "Irrigated areas)" *read* "Irrigated area".
- 149 Marginal heading of para 2. 6. 3. *For* "complimentary" *read* "complementary".
- 194 Line 20 .. *For* full stop after 1953 *read* comma.
- 112 Line 13 .. *For* "3. 7 6." *read* "3. 7. 6".
- 114 Line 37 .. *For* "dada" *read* "data".
- 142 Line 42 .. *For* "volumatrice" *read* "volumetric".
- 152 Marginal heading of para 6. 2. 2. *For* "on-utilisation" *read* "non-utilisation".
- 159 Marginal heading of para 6. 5. 1. *For* "integrate" *read* "integrated".
- 171 Line 31 .. *For* "convinient" *read* "convenient".
- 263 Column (11) against "Total-State". *For* "(4)" *read* "(—)".
- 291 Column (3) against "Total-State". *For* "4,41,49" *read* "4,41,49,1".
- 320 Line 3 .. *For* "acreage" *read* "average".
- 336 Column (8) against "Groundnut". *Read* "6" in the blank space.
- 344 Column (2) .. *For* "Ekrur" *read* "Ekruk".
- 349 Column (11) against "Gram". *For* "117" *read* "11.7".
- 362 Column (2) line 3 .. *For* "51,551" *read* "51,555".

INTRODUCTION

IN INDIA, the Irrigation Commission 1901-03 held the first comprehensive and countrywide inquiry into questions of irrigation policy and practice. Subsequent all-India committees and commissions on other subjects have no doubt considered this subject, but only with reference to some of its facets, e.g., the Royal Commission on Agriculture, 1928, dealt with irrigation in relation to agricultural production and the Taxation Inquiry Committee, 1953-54, has dealt with water rates and betterment levy. The report of the Irrigation Commission of 1901 still remains the only document dealing with irrigation problems of the country as a whole. The lapse of about sixty years since then has changed almost entirely the context in which that Commission deliberated.

OUR
PREDECESSORS

In respect of territories which comprise the present Maharashtra State there have been some inquiries in the past, but none of a comprehensive nature since that of the Bombay Irrigation Inquiry Committee of 1938, presided over by the late Shri M. Visvesvaraya. In Bombay a committee appointed under the chairmanship of Mr. Pratt studied the problem of irrigation in the then-Bombay Presidency and reported in 1921. Mr. Bristow was specially appointed by the Bombay Government in 1928 to study and report on the problems of the Deccan Canals. The Deccan Canals Financial Improvements Committee, under the chairmanship of Shri B. S. Kamat, reported in 1932. The Bombay Government appointed a sub-committee of the Cabinet in 1947 to study and report on the financial aspect of irrigation works. The C. P. and Berar Irrigation Enquiry Committee reported in 1927. No inquiry in respect of the Marathwada area has come to our notice.

Several inquiry committees and commissions at the State level, which were entrusted with the study of problems relating to agriculture, food production, famine relief, taxation, etc., have, from time to time, reported on the problems of irrigation in so far as they pertained to the main subjects under their study. A large number of reports on studies of specific or local problems of irrigation conducted by official agencies, non-official organisations and individual research workers have also been published

especially in recent years. To our knowledge none of the State Governments in India have had their irrigation policies and problems comprehensively investigated since the beginning of the Second World War. Our Commission thus stepped into a field largely untreaded at least for more than two decades.

**APPOINT-
MENT OF THE
COMMISSION**

2. The Maharashtra Government Resolution of the 7th December 1960 by which our Commission was appointed and the addendum of the 17th January 1961 are printed in Appendix 'A' to this Report.

**OUR TERMS
OF REFERENCE**

3. Our terms of reference were as below:—

(i) To assess the water resources of the State of Maharashtra and consider their utilisation for all purposes, namely hydro-power, irrigation, industrial and domestic use, and in particular to examine and report on the potentialities of irrigation by different means, *i.e.*, major, medium and minor irrigation works, wells, tanks, bandharas, *etc.*, in the territories of the State of Maharashtra.

(ii) After assessing the extent of irrigation facilities available from works already constructed or in progress, to consider and formulate, as far as may be, a specific plan of action for carrying out various types of irrigation works, with a view to affording protection to scarcity-affected areas as well as securing an optimum utilisation of the water resources available in the territories of the State of Maharashtra. In this connection the Commission will in particular consider the pros and cons of utilising some of the available water resources for power, alternatively to their utilisation for irrigation.

(iii) To consider problems of crop patterns and crop-planning in irrigation commands including the problems of localisation in new commands; water-logging and drainage; policy relating to supply of water from Government irrigation works to various consumers including sugar factories, industrial undertakings as well as individual farm-holdings, large and small; water-rates, including compulsory irrigation cess, full utilisation of irrigation potentialities—present and prospective; simplification of procedures as well as other problems of irrigation management, including measurement and

distribution of water, repairs and maintenance of head works and the distribution system, *etc.*

(iv) To examine the financial return on existing irrigation works; to consider the question of 'betterment levy' in all its aspects; and recommend the means of ensuring, as far as may be, an adequate financial return from the various types of irrigation works, *i.e.*, productive, protective, major, minor, *etc.*

(v) To consider generally all connected and ancillary matters relating to economic development and general prosperity in the irrigated areas of the State."

A 'memorandum of instructions' was also appended to the Government Resolution dated the 7th December 1960 which can be found in Appendix 'A' of our Report.

In Maharashtra it is difficult to substantially increase agricultural production by any means other than irrigation. Prosperity of the rural areas is, therefore, dependent mainly on the extension of irrigation facilities. Unless agricultural production increases, thereby making available larger quantities of raw materials for agro-industries, industrial development also cannot be pushed very much further.

Full exploitation of the irrigation resources of the State would mean a large investment of capital. And this investment of capital must be made to yield adequate revenue to Government. Some problems like difficulties in the assessment of betterment levy, localisation of crops, continuance of certain irrigation management practices which farmers do not like and are protesting against, were also awaiting solution. It was against this background that our Commission was appointed.

It appeared to us from some of the discussions we had at the district headquarters in the State that a number of persons expected us to examine individual irrigation projects already prepared, arrange to get such projects prepared where they had not been, consider their suggestions regarding individual projects and give our verdict on their suitability and priority individually. Similarly, some expected the Commission to cover such subjects as agricultural research and extension, land reform measures, establishment of subsidiary and ancillary industries, rural credit, urban water supply, *etc.*, beyond

their strictly limited relevance to irrigation problems.

We have eschewed the consideration of individual projects and have limited our discussion of the cognate subjects mentioned above only to the extent that they are relevant to irrigation problems. Mainly, we have dealt with matters of irrigation policy in all its aspects. The scope of our work can be seen from the questionnaire which was issued in January 1961; it is reprinted as Appendix 'B'.

**PROCEDURE
OF WORK**

4. The office of the Commission started working on the 9th December 1960 and the Commission held its first meeting in Bombay on the 6th January 1961. Immediately after holding our first meeting we issued our questionnaire both in English and in Marathi. We sent the questionnaire to a large number of non-official persons connected with irrigation, associations of irrigators and other bodies expected to be interested in the problem, as well as to several officials connected with irrigation, agriculture, co-operation, *etc.* We also publicised through newspapers that any one wishing to assist the Commission by sending replies to the questionnaire was welcome to do so. In all we received 197 replies and the list of the persons and associations who have sent their replies forms Appendix 'C'.

We decided to tour the entire State and meet persons interested in the subject of our inquiry and hold informal discussions with them. We held these informal meetings in each district of the State, mostly at the district headquarters. The itinerary of our tours will be found in Appendix 'D'. During these tours we also acquainted ourselves with various local problems pertaining to irrigation.

The Commission also decided to make a comparative study, particularly of irrigation management practices, in a few States, some in the north and others in the south. Accordingly, we visited the Punjab, Uttar Pradesh, Mysore and Kerala. We could observe in these States irrigation management practices and procedures, some of which were radically different to those prevailing in Maharashtra. We feel that these visits helped us in examining objectively the merits of the procedures adopted in Maharashtra. The itinerary of our tours

outside the State will also be found in Appendix 'D'.

After completing our tours, both inside and outside the State, we divided ourselves into four Panels, each for one of the following subjects:—

- (i) Financial aspect of irrigation works.
- (ii) Planning and execution of irrigation works.
- (iii) Irrigation management.
- (iv) Utilisation of the irrigation potential.

At our request Government agreed to the association of Shri Ramakrishna Ayyar, Financial Advisor, with the work of Panel I, of Shri V. B. Manerikar, Additional Chief Engineer (Irrigation Projects), with that of Panel II and of Shri L. N. Bongirwar, Registrar of Co-operative Societies and Dr. M. B. Ghatge, Director of Agriculture, with the work of Panel IV.

After the Panels completed their deliberations and formulated concrete proposals for the consideration of the Commission, we proceeded to record oral evidence of persons, of whom a list is given in Appendix 'E'. We recorded evidence at each of the four Divisional Headquarters in the State. At Bombay we also had the opportunity of having a discussion with Shri Y. B. Chavan, Chief Minister, Maharashtra State.

We met during the second week of December to finalise our conclusions and formulate our recommendations. The general elections which intervened kept some of us busy till the end of February and it was only in March that we could meet to consider the draft of our Report. Though we have taken six months more than originally intended by Government we feel that there has not been any avoidable delay and that the work has been completed as rapidly as circumstances permitted.

5. The Report is divided into eight chapters followed by seven appendices and an index. The first chapter on the 'Economic Geography of Maharashtra with reference to Irrigation' is intended to present the physical background to the problems discussed in later chapters. As such, only those aspects of the economic geography of the State are described which have a bearing on the problems of irrigation. Chapter II deals with the first part of our terms of reference, *viz.*, water resources and their utilisation. In chapter III we have dealt with the fourth

LAYOUT OF
THE REPORT

part of our terms of reference, *viz.*, an examination of the financial aspects of irrigation. Chapter IV is devoted to the formulation of irrigation projects and their execution. Chapter V deals with irrigation management and mainly covers item (iii) of the terms of reference. Chapter VI covers the fifth part of our terms of reference and deals with utilisation of irrigation facilities and development of irrigated areas. Chapter VII is devoted to research, statistics and the organisation for the reviewing of irrigation policy. The deficiencies which we have pointed out in the present method of collection and compilation of agricultural and irrigation statistics and accounting data, are, in the main, those which we came across in procuring and using those data for our purposes; we have not attempted to examine that field exhaustively. Chapter VIII is a summary of our Report. An index has been appended separately.

We have not numbered the paragraphs in the report in a single serial order. Instead we have adopted the decimal system, in which the first digit stands for the number of the chapter, the second for the serial number of the section within the chapter and the third for the serial number of the paragraph within the section. Sub-paragraphs have not been numbered. The serial numbers of Tables mentioned in the text of the Report are those given to the statistical tables in Appendix 'F'. The maps are kept in the separate folder which forms part of the Report. We thought that maps of a smaller size, which could have been bound with the Report, would have resulted in the details getting blurred in the process of reduction of size.

ACKNOWLEDGEMENTS

6. We would like to thank those persons and organisations who sent to us their replies to the questionnaire. We realise that much time and effort must have gone into the preparation of those replies and we put on record our gratitude for the help that these replies have given to us in the formulation of our recommendations. We invited some of those who had sent replies to our questionnaire, as well as some others, to give oral evidence before the Commission. The invitations had a fairly good response and as many as 102 persons gave evidence before us. We also had a group discussion with the Chairman

and members of the Deccan Agricultural Association of Poona. The response to our invitations to farmers, social workers, *etc.*, to meet us at the various district places was enthusiastic. A large number of persons, both officials and non-officials, came all the way to attend these informal discussions, no doubt at considerable expense and inconvenience to themselves. We are very grateful to these persons for helping us in assessing the situation, particularly with reference to local conditions.

We have the most agreeable memories of our stay at the different places in the State and would like to record our thanks to all the officers and others, who made our tours so comfortable and fruitful.

We would particularly like to thank the Governments of Punjab, Uttar Pradesh, Mysore and Kerala for the excellent arrangements made by them for our tours in those States. The officers of those States with whom we had long discussions gave us the fullest help and co-operation.

Several Departments and organisations of the Maharashtra Government sent us information, both statistical and other, regarding the various aspects with which we have dealt. Mention must be made particularly of the Water Resources Investigation Circle, the Deccan Irrigation Circle (I), the Bureau of Economics and Statistics and the Statistical Section of the Agriculture Department; they furnished to us voluminous data and we realise that this must have involved arduous work. With the kind courtesy of the Director of the Gokhale Institute of Politics and Economics, Poona, we made extensive use of the Institute's library.

We are grateful to the Gokhale Institute of Politics and Economics, Poona, for doing the very laborious work of translation of the Report into Marathi.

We desire, not as a mere formality, to record our appreciation of the sincere and hard work of the entire staff of the Commission, both during our deliberations and in the preparation of this Report.

To our Secretary, Shri S. K. Bedekar, we are very grateful for the excellent arrangements he made for the tours and for the meetings of the Commission. His experience of the Agriculture and Revenue Departments

and his wide knowledge of agricultural conditions in Maharashtra were of great value to the Commission. He brought to bear on his work zeal, enthusiasm and a discriminating judgment. The Associate Secretary and Member of the Commission, Shri D. A. Gadkary, has also helped immensely in the Commission's labours. Shri Gadkary, who has just retired as Director of Minor Irrigation after a long and distinguished service in the Public Works and Agriculture Departments, made available to us all the resources of his wide experience and ingenuity which were of great help in finding solutions to many of the complex issues that faced us. The Commission is deeply obliged to both these our colleagues for their valuable assistance. Shri A. R. Kaulgud, assisted by Sarwashri B. G. Jambhale and K. S. Upalavikar, handled the engineering section of the Commission's office. Shri Kaulgud's experience of irrigation management at the field level and his analytical perception of the matters in issue helped us substantially in evolving workable solutions to many of the technical problems of irrigation management. The statistical material, which forms the factual basis of our inquiry, was compiled and analysed by our Research Officer Shri S. P. Gothoskar, whose knowledge of the sources of statistical material, meticulousness in checking its validity and scientific approach to its analysis, helped us in making our examination of the data objective. Shri P. R. Joglekar, our Assistant Secretary, 'kept house' for the Commission. He had the responsibility to look after our tours, provide all secretarial and ministerial assistance and do all those things which comprise running an office, which he did very efficiently indeed. For all these services we are sincerely grateful.

7. The Report, we present, is a unanimous one. It means that we are agreed on all major points of principle and if individual opinions and preferences have been modified for the sake of presentation of the best collective view of the Commission as a whole, that has had to be done on a few matters of minor detail only.

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