



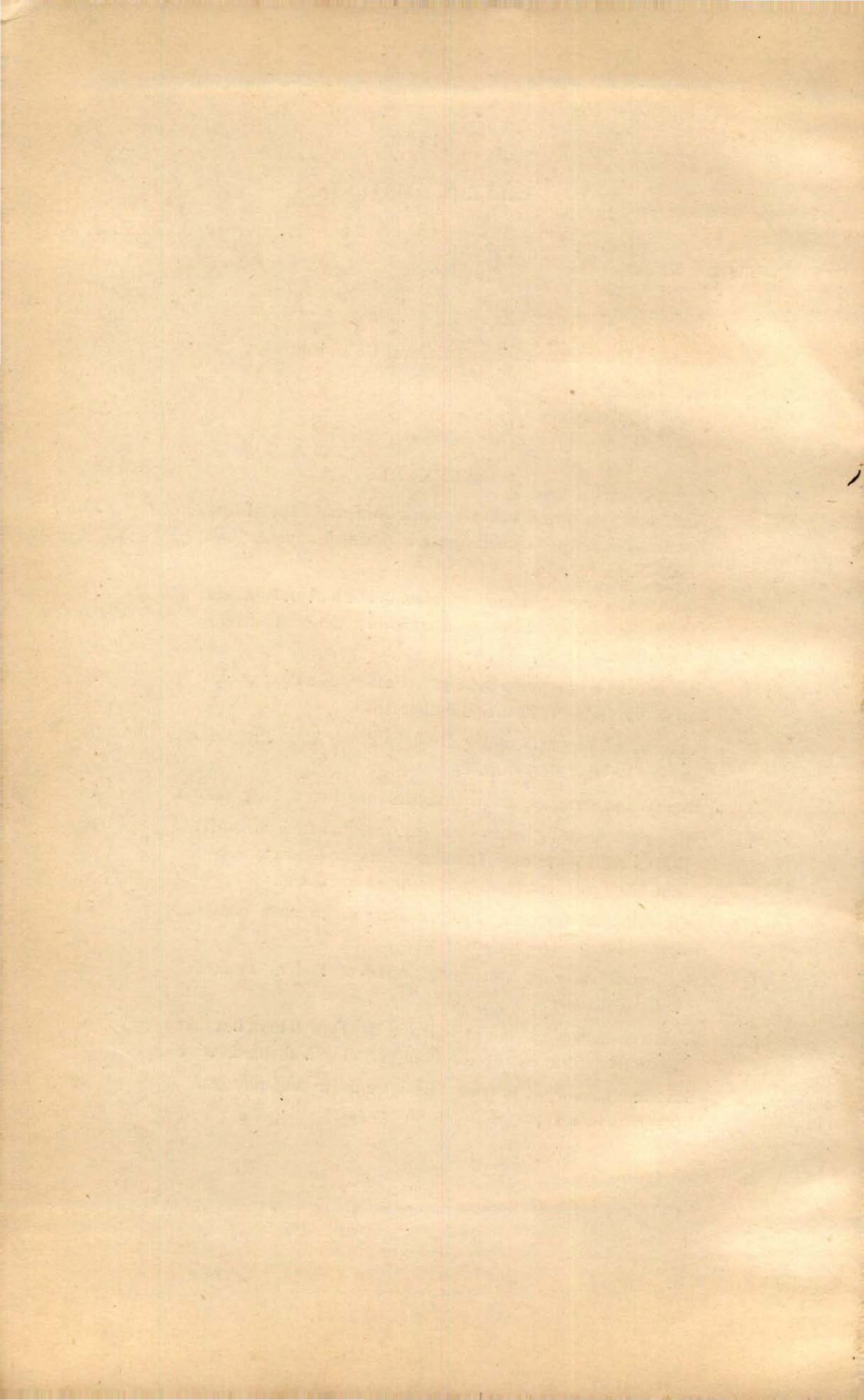
**GOVERNMENT OF MADHYA PRADESH**

**SUPPLEMENTARY REPORT**  
OF THE  
**COMPTROLLER**  
AND  
**AUDITOR GENERAL OF INDIA**  
FOR THE YEAR 1973-74  
(CIVIL)



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## PREFATORY REMARKS

This Report containing reviews of expenditure incurred by the Government of Madhya Pradesh on (i) relief of distress caused by natural calamities and (ii) road development has been prepared in English and Hindi for submission to the Governor under Article 151 of the Constitution and is based mainly on the test audit of expenditure incurred from 1969-70 to 1973-74. This Report is supplementary to the Reports on matters arising from the Appropriation Accounts, etc., for 1973-74 and earlier years which have been submitted already.

The Report is not intended to convey or to be understood as conveying any general reflection on the financial administration by the departments or authorities concerned.



## REVENUE DEPARTMENT

### I RELIEF OF DISTRESS CAUSED BY NATURAL CALAMITIES IN MADHYA PRADESH

#### 1. Introduction

1.1. *General.*—Madhya Pradesh with a total area of 4.44 lakh square kilometres had 1.68\* lakh square kilometres (168.88 lakh hectares) under crops in 1970-71. Agriculture in the State is mainly dependant on the monsoon as less than eight per cent of the area under crops is irrigated. Irrigation facilities available are also dependant on the monsoon. The eastern, southern and central districts, covering about two-thirds of the State have a normal annual rainfall of over 120 cms., and the remaining districts, barring parts of two northern-most districts and one south-western district, have a normal rainfall ranging from 80 cms., to 120 cms. The monsoon arrives usually by the middle of June in the eastern parts of the State and about a fortnight later in the western parts. Scarcity follows almost invariably the failure of the *kharif* crop.

1.1.2. Relief efforts are controlled and coordinated by the Revenue department of the Government for the State as a whole and the Collector in the district, with the Divisional Commissioner serving as a link. Elaborate instructions are contained in the Madhya Pradesh Scarcity Manual (hereinafter referred to as the Manual) to regulate the various aspects of scarcity administration.

1.1.3. The Collector plays a pivotal role in the administration of relief. He is generally responsible for, and exercises control over, all works and arrangements for giving relief and is responsible for the provision and punctual distribution of funds to the concerned officers within his district. His decision is to be accepted, pending reference if necessary to superior authority, in all matters relating to employment and wages of labourers, opening or closing of works, fixation and variation of piece-work rates and arrangements for, and the actual distribution of gratuitous relief, and, generally, in all matters not exclusively professional.

1.2. *Relief efforts.*—During the five years from 1969-70 to 1973-74 drought or floods were reported every year in one or the other part of the State. Year-wise details of these calamities and expenditure on relief operations as reported are given below :—

Year of occurrence	Description of calamity	Number of districts affected	Population affected	Period of relief operation	Expenditure incurred	
					Financial year	Amount (A)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(In lakhs)		(In lakhs of rupees)	
1969	Drought caused by erratic monsoon in 1969	9	20.34	November 1969 to November 1970	1969-70	90.23
					1970-71	120.49

\*As per 'Indian Agriculture in Brief' Thirteenth edition published by Directorate of Economics and Statistics, Ministry of Agriculture.

(A) Departmental figures.

Year of occurrence	Description of calamity	Number of districts affected	Population affected	Period of relief operation	Expenditure incurred	
					Financial year	Amount (A)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(In lakhs)		(In lakhs of rupees)	
1970	Damage to <i>rabi</i> crops by hail-storms in February-March 1970	31	Not available	April 1970 to November 1970	1970-71	2.44
	Floods in September 1970	10	do.	September 1970 to December 1970	1970-71	5.29
	Damage to <i>khari</i> crops due to excessive rains in 1970	1	1.75	December 1970 to November 1971	1970-71	8.53
					1971-72	15.94
1971	Local floods	5	Not available	Not available	1971-72	3.57
	Damage to crops due to gall-fly infestation	3	do.	December 1971 to October 1972	1971-72	8.13
					1972-73	28.24
1972	Local floods	6	do.	Not available	1972-73	5.87
	Drought due to erratic performance of monsoon in 1972	30	92.68	November 1972 to October 1973	1972-73	293.34
					1973-74	717.66
1973	Extensive floods in August 1973	22	36.90	September 1973 to March 1974	1973-74	149.26
						(upto February 1974)

(A) Departmental figures



In the first half of 1969-70, Rs. 115.95 lakhs were spent in addition on relief of distress caused by failure of the *khari* crop of 1968 in 15 districts. The figures of expenditure booked under the major head "64—Famine Relief" are given in Section 10.

1.3. *Financial assistance from the Government of India.*—Responsibility for relief measures is primarily that of the State Government. The Central Government gave assistance on the basis of certain principles, which were amended from time to time, when expenditure on relief was of a magnitude greater than that which the State Government could bear. Principles governing the quantum of Central assistance available for the period covered by this review were promulgated in 1966. The State Government was expected to bear expenditure upto a margin which had been fixed by the Fourth Finance Commission (or as later refixed by the Fifth Finance Commission). Thereafter, the Central Government was to reimburse 75 per cent of the expenditure incurred on certain items or types of relief, 50 per cent as grant and 25 per cent as loan. Expenditure on which Central assistance was to be calculated was subject to an overall ceiling to be fixed on each occasion. The last 25 per cent of the expenditure and expenditure on items other than those specifically included, were to be borne by the State Government but the Central Government had indicated that this expenditure, or part of it, could also be covered by *ad-hoc* loans if the ways and means position of the State consequent on the calamity made it so necessary.

The State Government was to send a complete report of nature of the calamity and expenditure anticipated to the Central Government consequent on which the latter deputed a team of officers to examine the situation, recommend the nature of relief required and quantum of assistance required. The Central Government fixed the ceiling on the basis of the Team's report. Central study teams visited the State in August 1970 and February 1973 for studying the situation arising from the droughts of 1969 and 1972 respectively. On the basis of the recommendations of those teams, the Central Government provided, provisionally subject to adjustment on the basis of audited figures of qualifying expenditure, Rs. 786 lakhs as assistance against relief expenditure incurred in 1969-70, 1972-73 and 1973-74. The expenditure incurred in 1971-72 did not exceed the margin (Rs. 80 lakhs) fixed by the Finance Commission. Against the expenditure of Rs. 144.32 lakhs in 1970-71, the Government of India declined (November 1972) to provide any assistance on the ground that the Central study team which had visited in August 1970 did not find any justification for incurring expenditure beyond the 'margin' fixed by the Finance Commission. Further details of the Central assistance are given in Section 10.

1.4. All records of the Revenue department of the Government in regard to operations and expenditure in the different districts of the State prior to 1971-72 were stated to have been destroyed and, therefore, the information available on these years at the direction level was incomplete. In particular, intelligence and statistical reports from lower formations were not available for these years. **Not**

was complete information of the nature of different measures and quantum of expenditure made available. This was also true to some extent, of papers available in individual districts. The various types of relief works undertaken, physical achievements and the expenditure incurred on each type of work in each district in each of these five years were called for from the Revenue department but has not been received (November 1975).

1.5. This review is, therefore, largely based on test check conducted by Audit in seven districts (Durg, Raipur, Jhabua, Bilaspur, Balaghat, Mandla and Khargone) in the second half of 1974. Expenditure incurred in these districts in the five years from 1969-70 to 1973-74 on relief of distress caused by calamities which occurred between 1968 and 1973, was 58.3 per cent of the total expenditure on scarcity relief in the State during these five years. The details of work done and expenditure incurred in these seven districts during the five years are contained in Annexure I, and the details of abandoned and incomplete works at the end of relief operations are in Annexure II to this review.

## 2. Standing preparations

2.1. The policy of the State Government regarding drought or flood relief as embodied in the Manual is not merely to prevent deaths from starvation but to recognise the possibility of extensive crop failure well before its appearance and organise relief measures in time. For this purpose, the Manual, *inter-alia*, prescribes the maintenance of :—

- (a) an effective programme of relief works.
- (b) an efficient system of intelligence.
- (c) a famine relief fund (at State level).

2.2. *Programme of relief works.*—The Manual contemplates preparation of a list of labour-intensive and productive works, conforming to the order of priorities prescribed in the Manual and designed to generate employment for unskilled agricultural labourers for a period of six months. The works are to be selected by the executing agencies concerned and all preliminaries such as surveys and technical approval got completed so that execution could commence as soon as the need for it arises. The Collector is required to submit to the Commissioner an abstract of the upto-date programme of his district in April each year and the Commissioner is required, in turn, to submit a certificate to the Government in the Revenue department in May that programmes had been prepared and kept upto-date in all his districts.

No certificates appeared to have been received by the Government from any Commissioner in respect of any of the five years. Programmes had not been prepared till 1972-73 in any district selected for test check; in Durg and Raipur, programmes were prepared in September 1973 and October 1973 respectively, but too late to be of use in dealing with relief operations covered by this review. In the absence of programmes, *ad-hoc* proposals for relief measures had to be initiated.

2.3. According to the Manual, certain preliminary technical preparations in respect of the works included in the programme are to be completed in advance. These preparations include surveys for feasibility, alignment, *etc.*, estimates and technical sanctions.

For road works executed by the Public Works and Revenue departments, and irrigation works executed by the Irrigation department in the selected districts between 1969-70 and 1973-74 the position in regard to survey and technical sanction was as follows :—

*Surveys.*—Of 1,552 works started (estimated cost : Rs. 1981.33 lakhs), 430 works were executed without surveys (estimated cost : Rs. 570.44 lakhs; actual expenditure : Rs. 228.19 lakhs); surveys were not required for another 273 works as only improvement of or repair to existing assets was attempted. Rupees 0.18 lakh were spent on surveys for 17 other works which were not taken up for execution.

*Technical sanctions.*—Of the 1,552 works taken up, 1,128 works had been commenced without technical sanctions. The reason advanced was that employment was urgently required and commencement of the work could not be held up for these formalities. The Manual requires the Collector to obtain the prior concurrence of the Government if he wishes to start relief works in anticipation of technical sanction. This was not obtained. In the second half of 1974, nearly a year after relief operations ended in September 1973, sanctions to detailed technical estimates were still to be accorded for 836 works (estimated cost : Rs. 1191.22 lakhs) on which Rs. 670.97 lakhs had already been spent. These included all 248 road works taken up by the Public Works and Revenue departments in Balaghat and Mandla districts. Of these roads technical sanctions were obtained for 28 roads in Mandla (which were still incomplete) on the basis of actual expenditure on these portions of the works executed when relief operations ended (September 1973).

For afforestation works, the Divisional Forest Officers were to keep ready with them survey maps for areas upto 3,000 to 5,000 acres. Similarly, the soil conservation wing of the Agriculture department was to keep ready survey maps of 15,000 to 20,000 acres exclusively for additional contour-bunding work to be done as relief works. As district programmes were not prepared, these ancillary preparations could not be made either. Relief works actually started included few soil conservation works and no afforestation works.

2.4. *System of intelligence.*—It is envisaged in the Manual that the Collector would get the first indications of a possible crop failure from certain routine reports on rainfall, crop conditions, *etc.*, reaching him from lower levels of the Revenue department in the normal course. When this happens, he has to call for a special crop report from the Tehsildar

concerned. This report is to be prepared under the close supervision of Tehsildars and Naib-Tehsildars. Facts and forecasts appearing therein are to be verified at first hand by the Collector and his assistants. The Collector has then to submit a detailed report to the Government, through the Commissioner setting out the facts on which they are based and his proposals for opening relief works when the situation demands it. Simultaneously, he has to order village-to-village enquiries and crop cutting experiments to collect accurate information on average yields in each village to form the basis of his proposals for suspension and remission of land revenue. This information would also help him to decide when and where to open relief works in accordance with the proposals already submitted by him to the Government.

2.4.2. In practice, the reporting system did not function as contemplated in the Manual, as explained below and in Section 3 .

In four of the five districts in which this question was examined (Mandla, Durg, Bilaspur and Khargone), the special crop reports on which the Collector was expected to base his assessments were not called for at all. In the fifth district (Balaghat), Revenue Inspectors were asked to check the facts appearing in these reports, but none of them reported the results of the check to the Collector. The Collectors' assessments and the detailed reports submitted by them to the Government were based generally on subsequent reports received from tehsils proposing suspension or remission of revenue. The collection and collation of this material from all affected tehsils took time and, as a result, the Collector often submitted his detailed report to the Government late, sometimes after relief measures had been initiated.

2.4.3. In Jhabua district in 1970, the Revenue department asked the Collector on the 17th October 1970 for a report as the Chief Minister had received information from some local legislators. Thereupon, the Collector submitted a report to the Government on the 26th October 1970 indicating that crop failure of a magnitude justifying relief measures had occurred in 359 villages of Jhabua tehsil and asking for Rs. 15.60 lakhs for relief measures. Eventually, only Rs. 6.42 lakhs were spent in the district till 31st March 1971.

2.4.4. Similarly, the Chief Minister asked on the 29th March 1971, for a report from the Collector, Durg, as he had received information from other sources that scarcity conditions had developed in certain areas of that district. The Collector submitted his report on the 24th April 1971 confirming the existence of scarcity conditions in 32 villages of 3 tehsils and proposing a total expenditure of Rs. 19.55 lakhs as shown below :—

Tehsil	Number of affected villages	Number of persons requiring employment	Anticipated expenditure on relief works
(1)	(2)	(3)	(4)
			<i>(In lakhs of rupees)</i>
Durg	16	2,982	7.90
Kawardha	15	510	11.60
Balod	1	..	0.05
Total	32	3,492	19.55

In May 1971, Rs. 6.28 lakhs were allotted against this demand. Subsequently, scarcity developed in some more areas of the district in the second half of 1971-72 because of insufficient rains and gall-fly infestation but the total relief expenditure in the district in 1971-72 was Rs. 4.94 lakhs.

2.4.5. In 1972, no formal reports of drought as contemplated in the Manual had been received from Collectors, when the Government convened a meeting of Divisional Commissioners on the 4th August 1972 to consider relief measures. At this meeting, it was decided that *nalla* bunding for water conservation should be taken up; funds for this purpose were allotted on the 14th August 1972 *ad-hoc* at Rs. 1,000 per block, Rs.5,000 for each Collector and Rs.20,000 for each Commissioner. On the 21st August 1972 a further amount of Rs.2 lakhs was allotted, *ad-hoc*, to each Commissioner (Rs.5 lakhs for Commissioner, Indore only). Commissioners were urged by the Government to start relief works and to send formal proposals thereafter. This was followed by a series of letters addressed to Collectors and Commissioners urging them to take action quickly and demanding more information from them. On the 28th October 1972, the Revenue Secretary asked Collectors for village-wise assessments of the *khari* output. As reports were either not received or were not sufficiently informative, Collectors were asked telegraphically on the 29th November 1972 to send the officers who dealt with relief measures to Bhopal so that the information could be compiled in time to be placed before the Central team which was expected to visit the State shortly. Formal reports from most Collectors as required by the Manual were received by the Government thereafter. Meanwhile, more funds were allotted to different Commissioners either on the basis of their demands or on an *ad-hoc* basis.

2.5. *Famine Relief Fund*.—The Fund was constituted in 1937 under an Act of the State Legislature which required a balance of Rs.75 lakhs to be built-up by means of annual contributions of not less than Rs.7 lakhs. The balance as on 31st March 1939 was Rs.33.21 lakhs. The balance was Rs.2.80 lakhs only by the 31st March 1974, of which Rs.0.81 lakh had been invested in securities.

### 3. Identification of affected tracts

3.1. Originally, the onset of scarcity was recognised and its magnitude assessed by persistent upward trends in prices of food grains, unusual movements of flocks and herds in search of pasture, unusual migrations of people, *etc.* In recent decades, these have come to be regarded, not as warnings of approaching distress, but as definite symptoms of scarcity conditions already established. It is now the declared policy of the Government to base anticipations of distress on an accurate knowledge of the state of the crops and the people, gathered before these symptoms appear, and to organize corrective and ameliorative measures in time to prevent their appearance or to mitigate their severity.

3.2. As mentioned earlier Collectors did not generally obtain special crop reports from Tehsildars which were the main devices prescribed in the Manual for providing them with accurate foreknowledge of the state of crops. As a result, the Collectors had to depend almost exclusively on the "annawari" reports submitted by Tehsils in connection with proposals for suspension or remission of land revenue under section 144 of the Land Revenue Code although these came much later in the sequence of intelligence devices prescribed in the Manual. These are based on extensive village-to-village enquiries and crop cutting experiments and the results are presented in the form of the average output in each village. The unit of measurement is a sixteenth part of a rupee (anna). The outturn in a normal year is taken as 13.3 annas which represents, by traditional estimation, the proportion of the full or 16 annas crop which is actually received on an average. The outturn of the particular crop, being assessed, is expressed in annas, as a fraction of this full crop. The numerator of this fraction represents the factual results of actual crop cutting experiments and the Manual requires these experiments to be conducted by Revenue Inspectors or officers superior to them. The denominator is an estimate arrived at by these officers in the light of independent inspection and enquiry. An average yield of less than six annas qualifies the village to suspension and remission of land revenue and, till the middle of 1972-73, the same criterion was applied for identifying villages in need of relief measures. Thus, the correct identification of affected areas depended entirely on the accuracy of the two elements making up the fraction.

3.2.2. In Mandla district, the crop cutting reports on the *khari* crop of 1972 were stated to be still (September 1974) with *patwaris* and the Collector was unable to state when, where and by whom the experiments were conducted and who supervised them. In Jhabua, the crop cutting reports were signed only by *patwaris* and there was nothing to show that the experiments were supervised or subsequent computations checked by any higher official. In test check of some reports of 1970-71, 51 instances of errors in computations were noticed. In Durg district, 15,742 experiments out of a total of 17,948 experiments were conducted only by *patwaris* without supervision or check of data by a superior official, while the other experiments were supervised or test checked by Revenue Inspectors or senior officials. In both Jhabua and Durg, the average yield of a normal year was stated to have been ascertained from the cultivators themselves. Standing instructions governing the assessment of average yields mention the possibility that cultivators would overstate the normal average yield, as they would gain thereby; for this reason, the normal yield is to be ascertained by independent enquiry.

3.3. In October 1972, a major change was introduced in the criterion followed till then for identifying areas in which relief works were required. On the 15th October 1972, the Government approved, provisionally, a new

version of the Manual, by including a new sub-paragraph\* providing that the need for relief works should be assessed against the background of unemployment, inability to purchase foodgrains owing to unemployment and substantial migration of labour in search of work, and that if these factors were present, the opening of relief works would be in order, notwithstanding the fact that the crop was more than six annas. On the 20th October 1972, Government further clarified that the presence of all three conditions was not essential and that Collectors were competent to open relief works at their discretion, when one or more of the prescribed conditions was or were present, if the situation in their judgement so warranted. The department had asked all District Collectors on the 7th October 1972 to reframe their proposals for scarcity relief works in 1972-73 on the basis of these criteria. No guidelines for determining the existence of these conditions were given. Of 44 districts in the State, relief works were opened in 30 districts in 1972-73. According to a Report of the State Government in January 1973, relief works in six out of 30 districts were started because of the application of the new criteria. But, according to reports received from Collectors and Commissioners by Government early in October 1972 (prior to the 7th October 1972) scarcity conditions did not exist in 11 out of these 30 districts. No factual material or statistical reports from subordinate formations were available, in any of the districts selected for test check, except Durg, on which the Collectors could have determined that the conditions stipulated in the new sub-paragraph existed in a measure more acute than normal when they ordered the commencement of relief works under this provision. Government ordered in September 1973 the closure of all relief works at the end of September 1973. Government stated (July 1975) that the position of rainfall, availability of labour on agricultural operations and labour attendance on scarcity works had been watched at State level, before issuing this order.

3.3.2. The Collector, Mandla had informed the Government in September 1972 that no area in his district had a crop outturn less than six annas. By January 1973, this assessment was revised and the outturn of crops in 1,299 villages out of 2,017 in the district were stated to be below six annas and the conditions stipulated in the new sub-paragraph had developed in 63 villages with higher yields. In September 1974, he informed Audit that the outturn in 1,410 villages was less than six annas and that no works were taken up under the new sub-paragraph.

3.3.3. Opening of relief works in areas of Bilaspur district which had a crop outturn in excess of six annas was justified in general terms, without supporting data, mainly as cultivators of these areas had started migrating elsewhere in search of employment. Bilaspur and adjoining districts are predominantly *kharif* areas with rice as the main crop. As there is hardly any *rabi* cultivation in this area, cultivators remain largely idle from November to May. As these

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\*This sub-paragraph has been deleted with effect from 1st October 1975.

districts are in the highly industrialised iron and coal belt running through Madhya Pradesh, Bihar and West Bengal, many migrate, every year, to centres of industry and trade during these idle months for the highly remunerative seasonal work before returning to their fields in May or June. The Revenue Settlement Report of Bilaspur (1929) records this seasonal migration as a normal feature of the agrarian economy of the district. No factual reports were available to indicate that the movement in 1972-73 was in excess of what was usual. The Collector stated (June 1974) that separate reports from Tehsildars regarding the extent of migration were not considered necessary as migration of labour was a normal feature in the district.

3.3.4. In Durg district, the Collector declared that conditions stipulated in the new sub-paragraph had developed in 30 villages assessed by him on data collected and reports received by him. While Rs. 4.28 lakhs were stated to have been spent in 1972-74 on relief works in these 30 villages, the following amounts were found to have been spent on works located in other areas where the crop outturn was more than six annas:—

Years of scarcity	Total number of works	Estimated cost	Expenditure incurred	Number of works located in other areas with a crop output exceeding six annas	Estimated cost	Expenditure incurred
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		<i>(In lakhs of rupees)</i>			<i>(In lakhs of rupees)</i>	
1969	83	177.52	67.52	9	31.39	9.56
1972	225	326.73	142.46	12	27.12	8.29

One of these was the Matang-Santra road (5 kilometres long; estimated cost: Rs. 0.58 lakh) work on which was started on the 28th May 1973 under orders issued by the Government, otherwise than on the recommendations of the Collector. When the Collector reported in June 1973 that this road could not be taken up as a relief work, as it was located in an area in which the conditions specified in the new sub-paragraph did not prevail, he was asked by the Government to carry out orders. Only earthwork was done on 1.8 kilometres of this road, Rs. 0.07 lakh being spent in 1973-74; after which work on the road stopped. The Bhilai-Sirsakala road (4 kilometres long; estimated cost: Rs. 0.57 lakh) was also taken up in September 1973 on Government's orders in pursuance of a declaration made in April 1973. Earthwork was done on 1.3 kilometres and murrum was collected for one kilometre at a cost of Rs. 0.05 lakh before work was stopped at the end of September 1973.

Neither the Collector nor the executing agencies could explain why the other 19 works were started and Rs. 17.73 lakhs spent in 1972-73 and 1973-74.



#### 4. Selection of relief works

4.1. Besides satisfying the immediate need for providing employment and a subsistence wage to persons who were unable, for the time being, to make a living out of their usual avocations, relief works chosen were to be such as would assist in the planned development of the area concerned and help to prevent the recurrence of scarcities. To ensure this an order of priorities as between relief works of different categories was laid down by the Government in 1966. Works for storage and supply of water for drinking and irrigation were accorded the highest priority followed by reclamation of fallow land for cultivation, afforestation, and contour-bunding operations, in the order mentioned. Construction of and repairs to *nistari* tanks and roads were the lowest in the order of priority.

4.2. Details of relief expenditure on these different classes of works for the State as a whole were available only for 1972-73 and 1973-74 for relief of distress caused by the drought of 1972, as briefly set out below :—

Type of works	Expenditure incurred	Percentage of total expenditure on relief works
(1)	(2)	(3)
	<i>(In lakhs of rupees)</i>	
Roads, including forest roads	447.53	49.9
Minor irrigation works	280.43	31.2
<i>Nistari</i> tanks	136.98	15.3
Afforestation excluding roads	12.84	1.4
<i>Nalla</i> -bunding	17.48	1.9
Soil conservation	2.41	0.3
Total	897.67	100.0

*Note:*—In addition, Rs. 147.44 lakhs were spent on other relief measures.

It will be seen that expenditure on roads and *nistari* tanks was 49.9 per cent and 15.3 per cent respectively of the total expenditure on relief works. On the other hand, expenditure on afforestation and soil conservation schemes was only 1.4 per cent and 0.3 per cent respectively. The Central teams which visited the State from time to time from 1969 onwards drew the attention of the State Government repeatedly to the fact that an unduly large proportion of relief expenditure was being spent on roads. Ultimately, the Government of India decided to limit the assistance for road works in 1972-74 to an amount equal to 35 per cent of the wage component of the expenditure on all relief works. As a result, only Rs. 333.69 lakhs were admitted in April 1974 by the Central review team for computation of Central assistance out of Rs. 447.53 lakhs spent on roads.

4.2.2. Expenditure on relief works in the seven districts selected for test check in the five years ending with 1973-74, was on the same lines, as shown below:—

Type of works	Expenditure incurred	Percentage of total expenditure on relief works
(1)	(2)	(3)
	(In lakhs of rupees)	
Roads including forest roads	459.75	52.0
Minor irrigation works	309.33	35.0
Nistari tanks	95.79	10.8
Nalla-bunding and other water supply works in rural areas	9.48	1.1
Afforestation and pasture development excluding roads	8.55	1.0
Soil conservation and land improvement	0.45	0.1
Total	883.35*	100.0

4.3. In the Manual, it is mentioned that works left incomplete from earlier periods should first be completed and new works of the same kind should be taken up in those areas only thereafter. It is also provided that care should be taken to commence only such new works as can be completed during the period of relief operations or for which further funds could be found as normal or plan expenditure of the department. The utmost care was to be taken to see that a large number of incomplete works are not left at the end of the period; it was the established policy of the Government to provide for completion, as normal works, of all such relief works as do remain incomplete when relief operations stop.

From Annexure I, it will be seen that out of 5,803 relief works (estimated cost: Rs. 2141.37 lakhs) taken up in the seven selected districts during the period covered by this review, 4,599 works were stated to have been completed at a cost of Rs. 483.97 lakhs. These included 4,012 small works (average cost per work: Rs. 2,300) which were mostly meant to provide temporary water storage capacity for purposes other than irrigation. If these and the small number (52) of other petty miscellaneous works are excluded, it will be seen that of 1,639 road and irrigation works taken up (total cost : Rs. 2009.24 lakhs), less than a third (535) were completed. As against their total estimated cost of Rs. 2009.24 lakhs, only Rs. 1200.02 lakhs had been spent on these works including Rs. 430.94 lakhs spent on relief operations prior to 1969-70 and from sources other than relief funds. From Annexure II, it will be seen that 1,034 works (expenditure : Rs. 805.74 lakhs) excluding 70 works (expenditure : Rs. 17.79 lakhs) which were abandoned, remained incomplete, when the last spell of relief operations ended in September 1973. Of these, work had not been continued or resumed on 554 works (expenditure : Rs. 291.38 lakhs) till the date of audit nearly a year later.

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\*An expenditure of Rs. 48.66 lakhs was incurred on relief measures other than works.

4.3.2. Besides these, work on 113 incomplete road works on which Rs. 40.64 lakhs had been spent during relief operations till 1968-69 was not resumed during the period from 1969-70 to 1973-74 either as relief operations or otherwise. On 69 of these roads, 346 kilometres of earthwork had been left unprotected. \*\*

4.3.3. Of 706 irrigation works (estimated cost : Rs. 812.45 lakhs) which were started during these five years, 206 works (estimated cost : Rs. 112.48 lakhs) were for repairing or improving existing assets without increasing their irrigation potential. In Bilaspur, in particular, all 142 works (estimated cost : Rs. 26.72 lakhs; expenditure : Rs. 16.56 lakhs) taken up fell in this category and were stated to relate to the repair or reconstruction of bunds of tanks built without sluice gates. As cultivators drew water from these tanks by breaching their bunds, repairs thereto were a recurring feature.

4.3.4. The amount reported to have been spent on afforestation included Rs. 15.77 lakhs spent on 1,014.7 kilometres of forest roads against an estimated cost of Rs. 27.91 lakhs. These roads were, in fact, mostly fair weather cart tracks used for extraction of forest produce and inspection; the expenditure had been incurred mainly on repairing them so as to make them passable for carts and trucks in the ensuing working season. The tracks suffer extensive damage during every rainy season and repair of those required during the ensuing working season is a normal feature of the work of the department. But such work is always done after the rains and just before the commencement of the working season. In these cases, however, work was started usually in the first quarter of 1973-74 and reported to have been completed, in many cases, before or during the monsoon months.

4.4. In test check it was seen that work was stopped or abandoned before September 1973 on 90 roads, irrigation works, etc., when relief operations were still in progress. Rupees 19.49 lakhs had been spent on these works against an aggregate estimated cost of Rs. 84.31 lakhs. These works were stopped or abandoned for the following reasons:—

Reasons	Number of works	Estimated cost	Expenditure incurred	
			From relief funds 1969-70 to 1973-74	Other expenditure
(1)	(2)	(3)	(4)	(5)
			(In lakhs of rupees)	
Non-availability of labour	39	27.59	6.48	..
Land acquisition problems	6	5.52	1.00	..
Non-availability of road rollers	7	15.45	8.47	..
Administrative approval not forthcoming or funds not provided.	8	18.77	1.41	..
Other miscellaneous reasons	6	3.94	0.26	0.10
Reasons not available	24	13.04	0.78	0.99
Total	90	84.31	18.40	1.09

\*\* "Unprotected" means neither compacted nor protected by a crust of metal or murrum.

These works included 39 roads (estimated cost : Rs. 43.25 lakhs and expenditure : Rs. 15.50 lakhs), on which only earthwork was done for 44.5 kilometres and remained exposed to rains and other natural factors, when work was stopped or abandoned. Out of these 39 roads, 22 roads were in Mandla (length of earthwork done: 19.4 kilometres; estimated cost : Rs. 32.12 lakhs; expenditure : Rs. 12.88 lakhs).

4.5. The following items of work were executed contrary to specific directions of the Government:—

- (a) Opening of metal-breaking centres in Jhabua in 1971-72 and 1973-74—Rs. 0.26 lakh.
- (b) Construction of two bridges in Raipur in 1970-71 — Rs. 0.53 lakh.
- (c) Black-topping of two roads in Raipur in 1970-71 and one road in Durg in 1969-70—Rs. 1.61 lakhs.
- (d) Construction of a well for a resthouse in Raipur district in 1973-74—Rs. 0.07 lakh.

## 5. Generation of employment

5.1. A major objective of the relief effort was to provide employment and a subsistence wage to affected persons, and, thereby, sustain them in reasonably good health and economic condition thus enabling them to resume their normal avocations smoothly when general conditions improved.

5.2. Figures of employment generated on relief works in the State as a whole in years prior to 1972-73 were not available with the Government. The proposals for relief operations consequent on the drought of 1972 contemplated that employment would be provided to 4.99 lakh persons for periods ranging from 60 to 180 days. According to figures furnished by the Revenue department, the number of persons employed on relief works in the months from November 1972 to September 1973 varied from 0.22 lakh to 3.57 lakhs. Month-wise details of employment provided to affected persons on relief and Plan works in each of the seven selected districts and on relief works in the State as a whole are shown in Annexure III.

5.3. Employment anticipated and actually provided, as reported by the Collectors of the selected districts except Jhabua are shown below:—

District	Anticipated and actual employment for					
	Drought of 1969		Drought and gall-fly infestation of 1971		Drought of 1972	
(1)	Anticipated (2)	Actual (3)	Anticipated (4)	Actual (5)	Anticipated (6)	Actual (7)
	(In lakhs of mandays)					
Durg	13.50	8.59	37.22	Not available	1,72.61	49.01
Raipur	99.54	30.34	46.80	0.39	72.50	36.69
Bilaspur	4,56.37	15.60	Not affected		35.20	6.34
Mandla	Not affected		Not affected		75.00	37.83
Balaghat	Not affected		Not affected		2,97.55	26.94
Khargone	Not affected		Not affected		72.25	23.64

5.3.2. In Mandla, Balaghat and Durg districts, employment on relief works was not limited to persons from affected tracts and all who sought employment were employed. An analysis of 34 relief works executed in Durg district during the drought of 1972 showed that persons from non-affected villages accounted for 2.10 lakh mandays out of 3.80 lakh mandays of employment generated. In 4 relief works in Khargone district, persons from villages not affected accounted for 0.51 lakh mandays out of 0.74 lakh mandays of employment generated.

5.4. According to the Manual, the *kharif* crop is harvested in October and it takes some time thereafter for distress to develop. The need for employment should arise in December or January and progressively rise to a peak in May before tapering off from June onwards when preparations commence for the next *kharif* cultivation.

5.4.2. From Annexure III, the following facts may be noticed:--

(a) Relief works in Mandla district continued till September 1973 even though the total employed both on relief and other works was less than 30,000 from May 1973. It may be mentioned that the employment potential of Plan works had been assessed at 30,000.

The maximum number employed was 42,274 persons in March 1973 against the total employment of 80,000 workers anticipated on both types of works. The labour strength of Plan works fell by half from 12,503 in March to 6,370 in April and continued at that level till June 1973 while the employment on relief works declined from 29,771 in March and April to 22,000 in May and 20,997 in June 1973.

(b) In Durg district too, total employment on relief as well as other works fell below the anticipated employment potential of Plan works alone (26,250 workers) from July 1973 onwards. But relief works continued till September 1973.

(c) In Raipur district, the number of workers employed on relief and other works actually increased in June and July 1973 when the rural population should normally have been busy in *kharif* cultivation. The rainfall in June and July 1973 was 55 cm. (normal rainfall: 59 cm.), against 33.8 cm., in June and July 1972. The Collector also stated (August 1974) that in these months employment was available for the entire eligible labour force in agricultural operations.

(d) In Jhabua district, employment on Plan works fell to 0.35 lakh in April 1973 from 0.47 lakh in March 1973, while on relief works, it increased from 0.12 lakh in March 1973 to 0.21 lakh in April 1973. In May 1973, the number employed on Plan works showed a marginal increase whereas it nearly doubled on relief scarcity works from 0.21 lakh in April 1973 to 0.41 lakh in May 1973.

## 6. Wages.

6.1. *Normal wages and relief rates.*—According to the Manual the Collector is to determine the daily normal wage rate of a person employed on relief works on the basis of the prevailing price of foodgrains in such a way that a man and his wife, by their combined earnings for a full day's work, are able to support themselves and three children under twelve in good health. The wage rates of skilled workers can be fixed at higher levels. The normal wage is not automatically payable to a worker; he gets only the equivalent of work turned out as measured and valued at "relief rates", fixed by the Collector for different items of work so that an average worker, doing a full day's work, will earn the normal wage. By raising or lowering these relief rates, allowance could be made for variations in the working efficiency of particular groups of labourers due to such factors as physical condition, extent of familiarity with the work assigned, etc.

6.1.2. During the five years (1969-74) normal wage rates for men, women and children employed on unskilled work were actually fixed by the Government from time to time and Collectors determined wage rates only for professional workers engaged in skilled or semi-skilled work.

6.2. According to the Manual, the relief rate should bear some definite relationship to the schedule rate for each class of work. The schedule rate is the rate paid to contractors in normal times and includes provision for payment of a normal wage to the workers. Professional workers on relief works could, therefore, be paid much less than the schedule rates, unless grain was very dear.

6.2.2. Relief rates were not fixed at all in Jhabua district and in Khargone except by one Forest Division. Work done and measured was valued and payments to labourers were made at wage rates fixed by the Government. The Collector, Jhabua stated that the tribal people were generally unwilling to do a full day's work and that, though their output was low, they had to be paid at wage rates prescribed by Government in order to ensure that they got a subsistence wage and did not turn to criminal activities. Test check of 332 muster rolls in Jhabua district showed that a sum of Rs. 0.13 lakh (out of a total of Rs. 1.04 lakhs paid) was overpaid by application of wage rates in excess of those prescribed by Government.

6.2.3. Instances were also noticed where payment for work done, without reference to normal wage rates (applicable to relief works), resulted in labourers getting much less than a subsistence wage. A test check in Jhabua district of 101 muster rolls from which 2,246 workers were paid showed that, of 6,959 wage-days for which payment had been made, what was paid fell short of the normal wage rate by 50 paise or more for 1,891 wage-days, the maximum deficiency being 110 paise. The wages actually paid came to Re. 1 or less for 974 wage-days. In Mandla district, a test check of 52 muster rolls indicated that payments at

Relief rates were at the following rates per day against the normal wage rate of Rs. 2.00 for a man and Rs. 1.50 for a woman :-

Number of muster rolls (1)	Rate for a man (2)	Number of muster rolls (3)	Rate for a woman (4)
3	20 paise	1	12 paise
3	25 paise	8	15 paise to 20 paise
9	28 paise to 40 paise	11	24 paise to 36 paise
6	45 paise to 50 paise	5	40 paise to 50 paise

Both in Jhabua and Mandla the population is predominantly tribal and the common explanation was that tribal people were unwilling to work hard. But it was difficult to visualise how even they could have subsisted on these wages and how these wages could have attracted individuals in the numbers reported, as indicated in Annexure III.

6.3. A bad weather allowance equal to 80 per cent of the normal daily wage was payable to workers for days when it was absolutely impossible for them to come to work because of bad weather. In Mandla district, Rs. 0.59 lakh were found paid as bad weather allowance to persons employed on road works for days on which they were present at the work-sites according to their record of attendance as marked in muster rolls. Neither was the nature of bad weather indicated in the muster rolls nor was it reported to the Divisional Officer or the Collector.

6.4. In Durg district too, relief rates for carting of materials were fixed at par with or 5 to 10 per cent lower than schedule rates. For other items of unskilled work such as earthwork and jungle clearance, however, the relief rates were 20 to 25 per cent below schedule rates.

On the 31st March 1973, the Government permitted a limited exception to the general rule that payments to persons employed on relief works should not exceed the normal wage rate by directing that if the value of measured work was slightly more than the amount payable at the normal wage rate in any stray case, the excess could be paid upto 50 paise per day. Actually the value of measured work was found to have been paid without reference to normal wage rates fixed by the Collector and the Government. In two Public Works Divisions and an Irrigation Division, of 132 muster rolls from which Rs. 1.93 lakhs were paid, Rs. 0.54 lakh were paid in excess on this account.

6.4.2. In December 1969, the Collector, Durg, had fixed separate sets of relief rates for Public Works and Irrigation Divisions. In February 1972, he raised the relief rates for only the Public Works Divisions by 20 to 35 per cent without recording any reasons although there had been no rise in normal wage

rates since December 1969. In January 1973, these relief rates were again reduced to the level which had been prevailing in Irrigation Divisions since 1969 although in the meantime, the Government had raised the normal wage rates in October 1972.

6.4.3. In test check of muster rolls in Kharone it was seen that Rs. 0.08 lakh were paid from April 1973 to June 1973 on muster rolls which contained no record of work done. It was explained that the payments were made to infirm gangs who had done negligible work on non-measurable items. The Manual permits liberal relief rates to be fixed for infirm gangs, but, apparently, not payment of wages to a gang which did no recordable work.

## 7. Supervision of works

7.1. The efficient management of relief works calls for a corresponding temporary accretion to the number of men available to manage them, especially at the level of technical supervision. Therefore, the Manual requires the Collectors and the Divisional level officers of the Public Works, Irrigation, Forest, Agriculture and Public Health departments to keep prepared and constantly reviewed a schedule of personnel in their respective departments suitable and available for being entrusted with scarcity relief measures. As this requirement was not complied with and the technical supervisory staff was also not augmented (except for a new Irrigation Division in Durg district in 1973-74 opened), the existing supervisory staff had to cover a larger number of relief works. The important tasks of allotting work to, and controlling gangs and recording attendance and measurements were left wholly to work-charged muster clerks. There was a test check of attendance and measurements by Executive Subordinates, but none at all by Sub-Divisional and Divisional Officers. Muster clerks were often in charge of gangs of more than 1,000 labourers and were expected to record attendance each morning on works located over distances of 10 kilometres or more. Materials-at-site accounts and road metal returns were seldom submitted by Overseers to Sub-Divisions or Divisions and the few that were submitted were not checked. Muster rolls through which a major part of the total money spent on relief works was disbursed were likewise not checked at the Divisional Offices. Works abstracts and registers of works were not written up at all or were in arrears.

7.2. The Manual contains special provisions to ensure prompt payment, as wages are intended to sustain those who have nothing else to fall back on. In Durg, payments on 159 muster rolls were found to have been delayed by periods ranging from one to ten months. In Raipur, out of 193 muster rolls checked, delays of one to four months were noticed in 63 muster rolls. In Mandla, test check of the muster rolls of one Public Works Division for three months disclosed 164 instances of delays ranging from one to three months.

7.3. In Mandla district, disbursement certificates were not recorded on the muster rolls by the disbursing officers, and consolidated progress of work was



recorded at one place for groups of muster rolls. In Durg and Jhabua districts, muster rolls contained a number of unattested overwritings.

7.4. The Inspection Notes of Deputy Collectors and Tehsildars in Durg district indicated the following:—

- (a) attendance was not marked daily in the muster rolls and in some cases attendance was not marked directly on the muster rolls but on separate sheets of paper, diaries, etc.
- (b) some persons marked present in muster rolls were found absent when the sites were inspected.

### 8. Utilisation of Plan funds

8.1. According to the Manual, it is of the utmost importance that the maximum possible amount of the Plan funds should be diverted to works in scarcity affected areas.

8.2. The State Government assured the Central team which visited the State in May 1969, that Rs.45 lakhs under the Plan budget would be diverted from other programmes and other areas to relief works in affected areas. While fixing the ceiling of total expenditure for the purpose of Central assistance, the Central team took into account this assurance of the State Government. On receipt of the allocation of Central assistance the State Government issued instructions (June 1969) that expenditure already booked against the Plan allocation of Rs.45 lakhs for relief works in scarcity affected areas, should be transferred to the major head "64—Famine Relief". In two of the seventeen districts which were affected by drought in 1968 it was seen in test check that Rs. 2.92 lakhs already spent on nine Plan works, that is, on works not started to provide relief employment, were debited to "64—Famine Relief."

8.3. The executing agencies in the districts, where records were reviewed and which were drought affected, did not utilise the entire amounts allotted to them for Plan works as detailed below :—

Year	Nature of works executed under scarcity relief	Expenditure incurred out of relief funds	Savings under Plan works	Number of executing agencies involved
(1)	(2)	(3)	(4)	(5)
		<i>(In lakhs of rupees)</i>		
1969-70	Local Development works	0.12	0.25	1
	Roads	25.50	2.26	2
	Irrigation works	15.36	11.93	3
1970-71	Roads	52.02	9.61	3
	Irrigation works	3.45	3.34	2
1971-72	Roads	0.55	1.42	2
1972-73	Roads	6.69	5.34	2
	Irrigation works	3.26	12.78	2
1973-74	Roads	21.99	5.68	1

8.4. Allotment of Plan funds had been made against some of the works undertaken out of relief funds. Test checks showed that these allotments were not fully utilised, while the expenditure was incurred out of relief funds as shown in the following table :—

District	Year	Number of works	Plan allotments not utilised	Expenditure incurred on these works out of relief fund
(1)	(2)	(3)	(4)	(5)
			<i>(In lakhs of rupees)</i>	
Durg	1969-70	10	0.93	2.38
	1970-71	17	2.24	7.62
	1972-73	1	0.57	0.13
Bilaspur	1969-70	1	0.37	1.77
	1970-71	1	0.10	0.15
Raipur	1970-71	8	0.67	8.32

### 9. Other topics of interest

Some other interesting points noticed in test checks in the seven districts as have not been mentioned earlier were :—

9.1. *Roads*.—Progress of earthwork on roads undertaken by different departments upto the 30th September 1973 when the last spell of relief operations covered by this report was:—

S. No.	Name of the district	Name of the Agency	Total proposed length	Length on which earthwork was done		
				Total	Protected	Unprotected
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			<i>(In kilometres)</i>			
1.	Durg	Public Works Department.	803.5	685.00	389.70	295.30
		Forest Department	88.0	31.25	..	31.25
2.	Raipur	Public Works Department	1,673.1	1,281.68	819.68	462.00
		Forest Department	251.0	196.50	196.50	..
3.	Jhabua	Public Works Department	969.5	639.01	361.41	277.60
		Forest Department	19.6	19.60	19.60	..
4.	Bilaspur	Public Works Department	1,030.3	763.20	379.80	283.40
		Forest Department	451.1	396.40	261.60	134.80

S. No.	Name of the district	Name of the Agency	Total proposed length	Length on which earthwork was done		
				Total	Protected	Unprotected
(1)	(2)	(3)	(4)	(5)	(6)	(7)
5.	Balaghat	Public Works Department	521.1	390.86	303.66	87.20
		Forest Department	73.0	Not furnished		
		Revenue Department	90.5	78.00	63.20	14.70
6.	Mandla	Public Works Department	1,009.5	346.50	177.50	169.00
		Forest Department	71.1	71.10	71.10	..
7.	Khargone	Public Works Department	609.6	422.29	82.19	340.10
		Forest Department	60.9	56.33	56.33	..
		Total	7,721.8	5,377.72	3,182.37	2,195.35

Of 2,195.35 kilometres of unprotected earth work, 1,463.25 kilometres were on roads on which work was not continued or resumed after the relief operations ended, and as mentioned in para 4.4 of Section 4, 44.5 kilometres were on roads which were abandoned. No measures were taken to protect earthwork done on these lengths from disintegration because of rains, etc.

9.1.2. The Public Works Division at Durg started construction of a road, 23 kilometres long, during the relief operations in 1967-68; only earthwork was completed on the first 20 kilometres at a cost of Rs. 1.69 lakhs. The residual work on the first 14 kilometres was taken up subsequently as a Plan work. When work on the remaining stretch (6 kms.) was resumed in 1972, earthwork done previously was found to have been almost completely washed away. Earthwork was redone on 5.8 kilometres at a cost of Rs. 0.32 lakh. Work was stopped again in September 1973 and earthwork done was left unprotected.

9.2. The Manual strictly prohibits collection of murrum and boulders at quarries. In January 1973, the Government further directed that, where road works were started, metal breaking should be limited to the quantities actually required for completing the roads. Nevertheless, 3.47 lakh cubic metres of road materials (value : Rs. 23.65 lakhs) were lying unused at quarries on the 30th September 1973 when relief operations were stopped including 0.02 lakh cubic metres (value: Rs. 0.07 lakh) known to have been collected before 1969-70 and 1.02 lakh cubic metres (value: Rs. 6.01 lakhs) for which the year of collection was not ascertainable. Of this, 2.13 lakh cubic metres valued at Rs. 16.34 lakhs had been collected for roads on which no work was done after September 1973 upto August 1974. In addition, 3.06 lakh cubic metres of road materials valued at Rs. 25.91 lakhs remained unused by the roadside on the 30th September 1973, including 0.45 lakh cubic metres (value: Rs. 3.00 lakhs) for which the year of collection was not ascertainable. Of this quantity 2.39 lakh cubic metres of materials worth Rs. 21.15 lakhs were on roads on which work was not continued or resumed after this date.

9.2.2. Of the quantities (value: Rs. 3.92 lakhs) lying by the roadside in Balaghat district, materials worth Rs. 3.76 lakhs were stated to have been used till September 1974 on Plan and other works (Rs. 2.72 lakhs) and on annual repairs to existing roads (Rs. 1.04 lakhs).

9.2.3. Materials lying unused included those collected in 1972-73 in Mandla, Raipur, Jhabua and Khargone districts at a cost of Rs. 4.75 lakhs for 25 road works, in all 139.7 kilometres long, on which no other work was done. Of these, Rs. 3.04 lakhs were spent in Mandla alone for collection of materials for 12 roads (84.8 kilometres).

9.2.4. The quantities mentioned above do not include certain materials collected before 1969-70 as detailed below:—

(a) The Executive Engineer, Mandla, informed the State Vigilance Commission in April 1963 that the division had collected road materials worth Rs. 14.28 lakhs at quarries as well as at roadsides during relief operations in the years till 1967-68. The division had no information (September 1974) as to how much of these materials were used subsequently, what the unutilised balances were and what their present condition was. The relevant records were stated to have been taken away by the Overseers concerned when they left the division on transfer. The stocks had never been physically verified.

(b) Full details were not available regarding the following balances which were reported to be lying with Public Works Divisions in Balaghat, Bilaspur and Durg districts:—

(1) Balaghat—Limited quantities in three quarries; value not known.

(2) Bilaspur—Metal and boulders collected for 20 incomplete scarcity roads on which work was never resumed; quantum and value not known.

(3) Durg— Materials collected for two class I roads and rendered surplus by a subsequent decision to construct them as class II roads; value was Rs. 0.15 lakh in the case of one road and not ascertainable in the case of the other.

9.3. *Irrigation works*.—From Annexure I it would be seen that 706 Irrigation works (705 Minor Irrigation works and one Medium Irrigation Project) were started at an estimated cost of Rs. 812.45 lakhs with an anticipated addition of 1,38,897 acres to irrigation potential. All these works were executed by the Irrigation department except for 27 small works (estimated cost : Rs.6.85 lakhs) undertaken by the Revenue and Forest departments.

9.3.2. The irrigation works taken up and completed with the irrigation potential to be created and actually created were :—

Description of works (1)	Number (2)	Increase of irrigation potential (3) <i>(In lakhs of acres)</i>	Estimated cost (4)	Expenditure incurred		
				Relief funds (5) <i>(In lakhs of rupees)</i>	Other funds (6)	Total (7)
<b>Taken up—</b>						
All works	706	1.39	812.45	309.33	214.40	523.73
Those expected to yield additional irrigation potential	500	1.39	699.97	170.50	144.45	314.95
<b>Completed—</b>						
All works	317(A)	0.27	191.24	115.06	58.62	173.68
Those expected to yield additional irrigation potential	188	0.27	158.43	93.01	58.62	156.63

9.3.3. It will be seen from Annexure II that 31 works were abandoned at different stages (expenditure incurred : Rs. 2.29 lakhs, irrigation potential planned : 5,586 acres). Further work was not resumed on 39 works, of which the anticipated irrigation potential was 5,033 acres. Till September 1973, Rs.11.44 lakhs had been spent on these works.

9.3.4. The cost per acre of potential created was within the ranges prescribed by the Government as a criterion for selection of minor irrigation works, in all districts except Jhabua where it was Rs. 2,447 for new minor irrigation works and Rs. 2,511 for improvement of existing works as against the ranges of Rs. 1,200—1,500 and Rs. 800—1,000 respectively prescribed by the Government for districts where the terrain is difficult.

9.3.5. Out of the additional irrigation potential of 26,855 acres created by the completed works, a potential of 15,222 acres was created by works completed by March 1973. In 1974, a year later, 12,199 acres had, it was stated, been irrigated and the remaining potential of 3,023 acres had not been utilised for the following reasons:—

	<i>Acres</i>
Cultivators unwilling to draw water for irrigation due to high rates	1,246
Tanks not filled up as rains were poor	502
Protective irrigation facilities not made use of due to good rains	237
Command area or distribution system not fully developed	215
Reasons not on record	823
<b>Total</b>	<b>3,023</b>

(A) Out of 27 works executed by the Revenue and Forest departments, 6 works were completed.

9.3.6. The only work on a Medium Irrigation Project (Bawanthadi Project) was to be a joint venture of the Governments of Maharashtra and Madhya Pradesh. A part of the left bank canal of the Bawanthadi Project was to pass through Balaghat district. When the project was still in the planning stage, Government approved, in March 1973, the excavation of a stretch of twenty miles of this canal at a cost of Rs. 59 lakhs, of which Rs. 15 lakhs were to be debited to famine funds. The Superintending Engineer, Wainganga Circle, Balaghat proposed in April 1973 that excavation be attempted only on certain reaches where the terrain made the anticipated alignment practically obligatory and to keep the section well below what was planned, so as to allow a margin for changes. The Irrigation Division at Balaghat started work in April 1973 and spent Rs. 3.14 lakhs on 0.70 lakh cubic metres of excavation on a stretch of three miles before the work was stopped with the closure of relief operations at the end of September 1973. Work had not been resumed till July 1975 when the Irrigation Division, Balaghat stated that the Project Report was yet to be approved.

9.4. *Works for storage and supply of water for purposes other than irrigation.*—In the seven districts selected for test check, a large number of small works were taken up under this group, mostly by the Revenue department in 1972-73, as mentioned in item 3 of Annexure I. On these works mostly excavation and earthwork were done. Except for 44 large *nistari* tank works which were executed by the Irrigation department (expenditure: Rs. 27.50 lakhs), technical estimates were not prepared showing the precise description and quantum of various items of work to be done. The estimate was only an estimate of the amount required, without supporting details.

9.5. *Afforestation.*—The Forest department executed various kinds of labour intensive relief works such as roads and tanks, and such routine departmental works as cultural operations, grass cutting, lantana eradication, etc. But no afforestation, that is, raising of new forests or regeneration of depleted ones was attempted in any district selected for test check. The largest component of the expenditure (Rs. 15.77 lakhs out of Rs. 28.35 lakhs spent in all) was spent on fair-weather cart tracks used for extraction of forest produce and inspections. Rupees 8.55 lakhs were also spent in three districts for trench-fencing including Rs. 7.88 lakhs spent for pasture development in Jhabua and Khargone districts. In Khargone where Rs. 7.35 lakhs were spent, it was stated that the anticipated three-fold increase in fodder production had failed to materialise as grass seeds were not available and because of inadequate rains in 1973 and 1974.

9.6. *Land compensation.*—Rupees 14.87 lakhs were paid in 1972-73 and 1973-74 as compensation for land acquired for relief works and accounted for as such. Similar payments of Rs. 22.35 lakhs were accounted for directly as works expenditure in Durg, Jhabua and Raipur districts.

9.6.2. Payments aggregating Rs. 3.92 lakhs, for land acquired for scarcity works started prior to 1969-70 currently being continued with non-relief funds, were accounted for as relief expenditure in Balaghat, Bilaspur, Raipur and Durg

districts. Compensation payments totalling Rs. 0.67 lakh for two relief works on which no work was done were also charged to relief funds in 1972-73 and 1973-74.

9.7. *Gratuitous relief—Food or cash doles in lieu of food.*—Early in January 1973, the Government assessed the requirements of funds for relief measures in 1972-73 and 1973-74 for coping with the drought of 1972 on the basis of information furnished by Collectors. It was estimated that Rs. 30 lakhs would be required for providing cash doles for food, free and concessional supply of medicines, distribution of milk powder and medicines, etc., to 5,000 physically or mentally handicapped and infirm persons, starving wanderers, pregnant women and nursing mothers. The estimates for the districts selected for test check and the corresponding actuals as ascertained from the Collectors were :—

District	Estimates		Actuals	
	Number of beneficiaries	Amount	Number of beneficiaries	Amount
(1)	(2)	(3)	(4)	(5)
		Rs.		Rs.
Durg	350	2,10,000	Not available	500
Raipur	400	2,32,800	804 persons for varying periods	43,997
Bilaspur	200	1,20,000	Nil	Nil
Jhabua	300	1,80,000	9,337 mandays	71,169
Balaghat	200	1,20,000	15	315
Mandla	500	3,00,000	1	14
Total	1,950	11,62,800		1,15,995

Only food or cash doles in lieu of food were distributed in these districts. Actual expenditure, it will be seen, was less than 10 per cent of the estimate, and the amounts spent were of significant proportions only in Raipur and Jhabua.

9.7.2. The Central study team, which visited in February 1973 fixed a ceiling of Rs. 4 lakhs against the demand of Rs. 30 lakhs, considering that the expenditure till February 1973 was only Rs. 0.53 lakh and further expenditure might not be substantial. The actual expenditure for the State as a whole was only Rs. 1.40 lakhs. Government stated (July 1975) that the fixation of a ceiling of Rs. 4 lakhs by the Central study team probably prompted the Collectors to go slow with the distribution of gratuitous relief.

9.7.3. The only instance of such aid prior to 1972-73 was Rs. 0.03 lakh spent in Durg district in 1969-70. In particular, there was no reference to expenditure on gratuitous relief in 1970 in information furnished to Audit (August 1974) by the Collectors, Raipur and Bilaspur whereas the Revenue department had stated

(September 1971) for purposes of Central aid, that Rs. 0.47 lakh were spent on gratuitous relief to 26,144 persons in these districts from April to December 1970. The Revenue department clarified (April 1975) that the claim for Central assistance represented amounts allotted to the Collectors.

9.7.4. In Jhabua district, Rs. 0.62 lakh were, it was stated, spent in 1969-70 on transportation of food supplied free of cost by the CARE organisation, and distributed to tribal people by the Tribal Welfare department. Jhabua is a predominantly tribal district and distribution of food, etc., was part of an ongoing programme of the Tribal Welfare department, distribution costs were budgeted for and met by that department. It was not clear why, in this year, expenditure was met from relief funds.

9.8. *Aid for village water supply scheme.*—In May 1973, the Government ordered that, for villages where drinking water was scarce and construction of or repairs to village water works were held up because of non-receipt of the prescribed contributions from *Panchayats*, such contributions could be paid by debit to the relief head. Among the districts test checked, payments were made on a significant scale under these orders only in Raipur (58 works : Rs. 0.55 lakh) and Bilaspur (38 works : Rs. 0.66 lakh).

9.9. *Urban water supply.*—In the Manual, utilisation of relief funds on urban water supply arrangements is authorised only for grants for cleaning and deepening of old wells and digging of *jhirias* for relieving acute, but temporary water shortage in smaller towns. Cities are expressly excluded. In 1972-73 and 1973-74, Rs. 76.95 lakhs were spent as indicated below :—

(In lakhs  
of rupees)

(1) Augmenting and improving protected water supply in —	
(a) Capital city of Bhopal	20.29
(b) Corporate city of Ujjain	8.93
(2) Grants to various other city corporations and municipal councils	36.81
(3) Purchase of 20 tracto-tankers by the Public Health Engineering Department for supplying drinking water in scarcity affected areas.	10.92

9.9.2. In Bhopal, Rs. 10.29 lakhs were spent by the Public Health Engineering Department till March 1974 for drilling 33 tube wells (of which 13 were successful); 8 chassis were also purchased for use as tankers. Actually 5 chassis were fitted with tanks and the remaining three were converted into trucks. The trucks and tanks (cost: Rs. 5.10 lakhs) were received in July 1973, when the rains had already set in ; they were not utilised till the end of August 1973, when the water supply system was affected by floods. In December 1972, Rs. 10 lakhs were paid to the Municipal Corporation, Bhopal on an *ad-hoc* basis for a scheme for constructing 50 tube wells at an estimated cost of Rs. 35 lakhs. The nature of assistance to be provided by the State Government for this scheme is yet to be



decided (April 1975). According to information furnished by the Corporation, Rs. 9.82 lakhs had been spent so far ( April 1975 ), including Rs. 1.79 lakhs utilised on works not included in the scheme submitted to the State Government.

9.9.3. Grants aggregating Rs. 36.81 lakhs to various city corporations and municipal councils were for the following schemes :—

	Amount of grant <i>(In lakhs of rupees)</i>
1. Construction of tube wells	20.70
2. Purchase of tracto-tankers	5.06
3. Miscellaneous schemes such as purchase of pumping sets, laying of pipe lines, cleaning and repair of wells, etc.	11.05

These grants were sanctioned between the 22nd January 1973 and the 29th March 1973 (Rs. 26.76 lakhs) and in the first quarter of 1973-74 (Rs. 10.05 lakhs) and the last date by which they were to be utilised was the 30th September 1973. The sanctioning authority had no information as to how much of these grants had been utilised and when (April 1975). These grants included Rs. 3.11 lakhs paid to municipal bodies in eight districts which were not among those in which scarcity conditions were reported to have developed in 1972.

9.9.4. The Government decided on the 16th February 1973, that grants for the construction of tube wells were to be partially converted into loans, if Central assistance for the purpose was not received. The Central Government did not admit these grants for assistance in March 1974. Action had not been taken (April 1975) for conversion of a portion of these grants into loans. Government decided later, on the 20th December 1972, that grants for the purchase of tracto-tankers were to be given from non-relief funds. Why the cost of these tracto-tankers was met from relief funds could not be ascertained.

9.9.5. These grants included Rs. 5.23 lakhs paid to municipal councils in three of the districts selected for test check (Raipur, Khargone and Bilaspur). The position regarding the utilisation of these grants as ascertained in test check was as follows:—

(a) In Raipur district, Rs. 3.44 lakhs were paid as grants and Rs. 2.45 lakhs as loans to 3 municipal councils, of which Rs. 2.34 lakhs were not utilised by March 1974 and Rs. 0.22 lakh had been utilised for purposes other than those intended. No information was available regarding Rs. 2 lakhs paid for the purchase of four tractors with tankers.

(b) Out of grants and loans aggregating Rs. 2.03 lakhs paid to six municipal councils in Khargone district, Rs. 0.28 lakh remained unutilised at the end of September 1974. In addition, Rs. 0.56 lakh paid to one council were stated to have been deposited with the Public Health Engineering Department to get the work done as a deposit work, against which Rs. 0.42 lakh were spent till February 1974.

(c) In Bilaspur district, grants and loans aggregating Rs. 1.25 lakhs were paid in the summer of 1973-74 to two municipal councils of which Rs. 1.18 lakhs remained unutilised at the end of July 1974.

9.9.6. Twenty tankers purchased by the Public Health Engineering Department were sent to the divisions in May and June 1973. Two of these tracto-tankers were supplied to the Gwalior circle from which no scarcity of drinking water had been reported in 1972-73 and 1973-74. The log book of one tanker retained at Gwalior indicated that it was used for transportation of stores for other works.

9.10. *Tools and plant.*—According to the Manual, Public Works, Agriculture and Forest departments have to maintain reserves of tools and plant likely to be required for relief works in quantities and at the centres to be determined by the heads of the respective departments. No orders fixing the reserve limits had been issued in these departments in recent years. Test checks showed that the Agriculture and Forest departments had no such reserves at all while in Public Works and Irrigation Divisions, numerical accounts of tools and plant purchased with relief funds in earlier years were not available. Physical verification was not conducted at all.

9.10.2. Amounts were specifically allotted for tools and plant to the Public Works and Irrigation departments and to Collectors of districts only for the drought of 1972. Expenditure on purchases of tools and plant was stated to be Rs. 27.16 lakhs in 1972-73 and Rs. 6.28 lakhs in 1973-74. Details of expenditure were available only for Rs. 7.24 lakhs spent by the Revenue department itself in March 1973 on purchase of 30 jeeps, of which one was retained by the department at Bhopal and the others distributed to 18 districts. The balance was spent through the Public Works and Irrigation departments (Rs. 14 lakhs) and District Collectors (Rs. 12.27 lakhs). Actually, these figures represented only allotments made by the department and not expenditure actually incurred. The Engineer-in-Chief, Irrigation was unable to state (April 1975) how much of it had been actually utilised, while the Engineer-in-Chief, Public Works (Buildings and Roads) Department, had details of expenditure for Rs. 6.43 lakhs against his allotment of Rs. 9 lakhs.

9.10.3. As against the normal duration of six months, relief operations following the drought of 1972 lasted almost a full year till the 30th September 1973. In test check two instances were seen of purchases of tools and plant so late as to be of little use during the period as indicated below :—

(a) The Public Works Division at Balaghat purchased tools and plant worth Rs. 1.60 lakhs between March and September 1973. Orders for articles worth Rs. 0.90 lakh were placed between May and August 1973. From the records available it was seen that the actual issues from October 1972 to September 1973 of only wooden boxes, iron boxes and crow bars out of 18 articles exceeded the opening balances as on the 1st October 1972; issues in excess of the balance as on the 1st October 1972 of these three articles were worth Rs. 0.03 lakh.

(b) Similarly, an Irrigation Division at Durg purchased tools worth Rs. 0.29 lakh from July to September 1973 and Rs. 0.21 lakh after September 1973 when the relief operations had already ended. Items purchased included steel office furniture worth Rs. 0.05 lakh purchased in August-September 1973, a pump set purchased for Rs. 0.05 lakh in December 1973 and levelling instruments worth Rs. 0.18 lakh bought in July and August 1973.

### 10. Expenditure, accounts and Central assistance

10.1. *Expenditure and accounts.*—Expenditure on relief measures as in papers available in the Revenue department and as booked under the major head "64—Famine Relief" were :—

Accounts year	Figures as available at State head-quarters	Expenditure booked
(1)	(2)	(3)
(In lakhs of rupees)		
1969-70	206.18	238.30
1970-71	144.32	145.03
1971-72	27.64	37.35
1972-73	327.45	282.09
1973-74	Not available.	896.49

10.1.2. The Revenue department of the Government which controls expenditure under this head of account stated (April 1975) that departmental figures of expenditure of the years 1969-70 to 1971-72 had been reconciled with those of the Audit Office; differences have not been analysed in detail. Figures for 1972-73 and 1973-74 had not been reconciled (December 1975).

10.1.3. Test check in the seven districts indicated that the expenditure debited to relief funds included the following amounts representing expenditure on works accounted for initially under Plan or other normal heads of account and transferred subsequently to the relief head by book entries. These transfers appeared, *prima facie*, to contravene the basic stipulation that relief expenditure should provide relief by way of additional employment, *etc.*, in the areas affected and during the period of distress. In some of these cases, expenditure did not also conform to instructions and procedures laid down in the Manual for regulating work and outlay on relief works.

S.No.	Division	Amount transferred	Nature of transfer
(1)	(2)	(3)	(4)
(In lakhs of rupees)			
1.	Tandula Irrigation Division, Durg	1.23	Represents cost of 10,000 bags of cement shown as issued from stock in March 1974 to six new irrigation works. On three works (5800 bags : Rs. 0.71 lakh), only earth work was done till September 1974 and no cement was consumed. In

S.No.	Division	Amount transferred	Nature of transfer
(1)	(2)	(3)	(4)
		<i>(In lakhs of rupees)</i>	
			one case (1100 bags: Rs. 0.14 lakh), hardly any work was done till September 1974. As detailed records were not available the quantity of cement used in the remaining two cases could not be ascertained.
2. Tandala Irrigation Division, Durg		0.70	Expenditure incurred on the construction of residential quarters and a store building in Durg town, through contractors, transferred <i>ad-hoc</i> to sixteen relief works in October 1973.
		0.48	Amount spent previously on purchases of tools and plant from the usual allotment was transferred to the relief head by book entries in October 1973 and January 1974.
3. Irrigation Division I, Jhabua		0.43	Expenditure on residential quarters transferred to the accounts of scarcity tank works in September-October 1969.
4. Public Works Division, Mandla		0.53	Expenditure incurred from December 1972 to February 1973 on five road works taken up under the Crash Scheme for Rural Employment was transferred to the relief head in September-October 1973.
		0.22	Expenditure on repairs to three roads incurred from October 1973 to March 1974 was transferred to the relief head in March 1974, although relief operations had been wound up in September 1973.

S.No.	Division	Amount transferred	Nature of transfer
1	2	3	4
		<i>(In lakhs rupees)</i>	
5.	Public Works Division, Balaghat	8.89	Represents expenditure incurred in the years from 1971-72 to 1973-74 and initially accounted for as pertaining to the Crash Scheme for Rural Employment (18 works : Rs. 6.80 lakhs), Capital outlay on Plan roads (4 works : Rs. 1.63 lakhs) and annual repairs to existing roads (2 works : Rs. 0.46 lakh), transferred to the Relief head in October-November 1973 for which details of expenditure from individual vouchers were available only for Rs. 5.12 lakhs. The transfer included:—

(a) Rs. 3.90 lakhs spent in 11 road works before these works were included in relief operations relating to drought of 1972.

(b) Rs. 0.99 lakh spent on 5 roads prior to November 1972 when no relief operations were in progress.

(c) Rs. 0.27 lakh adjusted as cost of 2000 bags of cement for use on a crossing to be constructed on a non-scarcity road.

The following other points were also noticed:—

(a) Orders of the Divisional Engineer for these transfers in an office note indicated that the purpose was to get allotments released under non-scarcity heads.

(b) The amounts for which individual vouchers were not available included rupees one lakh representing the exact amount approved by the Collector for one relief work.

10.2. *Central assistance.*—In Section I the pattern of Central assistance is mentioned. Such assistance made available in various years was as under :—

Year of expenditure	Expenditure accounted for under "64—Famine Relief"	Central assistance made available in								
		1969-70		1970-71		1972-73		1973-74		
		Loan	Grant	Loan	Grant	Loan	Grant	Loan	Grant	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
(In lakhs of rupees)										
1969-70	238.30	50.0	..	67.0	..	..	..	..	..	..
1972-73 and 1973-74	1178.58	..	..	..	..	..	..	322.0	347.0	..

The assistance received from the Government of India was provisional to be adjusted on the basis of actual qualifying expenditure. It has not been possible to effect this adjustment for the following reasons :—

- (i) As already mentioned the expenditure reported by the State Government does not tally with expenditure booked in the Accounts Office.
- (ii) Expenditure incurred was not always related to relief of distress caused by natural calamities. Instances have been mentioned earlier.

10.2.2. Further, as certain expenditure on relief measures does not qualify for Central assistance, it was necessary to segregate items which are eligible from those which are not. The accounts include expenditure which may not be eligible for Central assistance. A few instances are detailed below :—

(a) In 1969-70, the State Government had reported that drought had affected 17 districts in all ; on this basis the Central study team had recommended (and the Government of India had accepted) a ceiling of Rs. 236 lakhs for relief expenditure eligible for Central assistance. Of the total expenditure of Rs. 238.30 lakhs accounted for in that year, expenditure incurred in these 17 districts was only Rs. 186.15 lakhs, according to information made available by the Revenue Department.

(b) The State Government informed the Central Government in May 1969 that Rs. 110 lakhs would be diverted from Plan funds for providing employment in scarcity areas in 1969-70, including Rs. 45 lakhs to be diverted from provisions meant for other areas and programmes. Allotments aggregating Rs. 45 lakhs were actually made from Plan funds for works to be started in scarcity affected areas. Subsequently, expenditure incurred on relief works against these allotments was transferred to the relief head.

(c) In January 1974, the State Government reported to the Government of India that Rs. 1045.11 lakhs had been spent in all on relief of distress caused by the drought of 1972. After making certain disallowances, the Government of India adopted an expenditure of Rs. 848.89 lakhs and approved Central assistance of Rs. 517 lakhs (75 per cent of Rs. 848.89 lakhs less Rs. 160\*1 lakhs). The difference (Rs. 152 lakhs) between the Central assistance already given (Rs. 669 lakhs) and the approved amount (Rs. 517 lakhs) could be used for flood

\*Margin at Rs. 80 lakhs per year for 1972-73 and 1973-74

relief. The expenditure provisionally accepted by the Government of India included the following items :—

	(In lakhs of rupees)
(i) Expenditure incurred in 1972-73 on relief operations commenced in the preceding year in three districts on account of damage to <i>kharif</i> crop of 1971 which was not reported to the Government of India.	28.24
(ii) Expenditure on purchase of tools and plant not qualifying for Central assistance, but shown as expenditure on relief works.	9.57
(iii) Overstatement of expenditure on <i>nistari</i> -cum-irrigation tank works due to error in compilation (Rs. 136.98 lakhs reported against Rs. 131.74 lakhs).	5.24
(iv) Expenditure of Rs. 20.27 lakhs claimed as gratuitous relief included Rs. 13 lakhs paid as doles to village <i>Kotwars</i> and Rs. 5.87 lakhs paid as gratuitous relief to persons affected by local floods in 6 districts in 1972. The first item had been rejected by the Central study team and the second item was beyond the purview of the Team's recommendations. Against the remaining expenditure of Rs. 1.40 lakhs, the full ceiling of Rs. 4 lakhs admissible on gratuitous relief was applied.	2.60
(v) As expenditure on road works accounted for nearly half of the expenditure on relief works, the Government of India decided to limit such expenditure to 35 per cent of the total wage expenditure on all categories of relief works for the purpose of Central assistance. The amount so admissible came to Rs. 290.16 lakhs against Rs. 333.69 lakhs computed by the Central study team.	43.53
(vi) Expenditure on forest roads included under "Afforestation", and covered by the ceiling of 35 per cent of the total wage expenditure mentioned in the preceding item.	45.61
(d) Expenditure incurred from September 1973 till February 1974 on relief of distress caused by floods, as reported by the State Government, was Rs.74.76 lakhs. Amount spent in March 1974 could not be ascertained (April 1975).	

## 11. Drought Prone Areas Programme

11.1. In 1970-71, the Government of India sponsored a rural works programme for chronically drought affected areas in the non-plan sector which aimed at integrating individual schemes of rural works into a general programme of agricultural development for the selected areas and deploying the outlays under it in such a manner as to generate considerable employment in the rural sector. Two years later, the emphasis was shifted from generation of employment to reorient the programme into an effort to find a permanent solution to the problem of susceptibility to drought in these areas. Simultaneously, the programme was restyled as the Drought Prone Areas Programme and brought into the Fourth Five Year Plan from 1972-73. In Madhya Pradesh the Programme was introduced in Jhabua, Sidhi and Dhar districts in January 1971 and in Betul district in December 1971. Some portions of Khargone and Shahdol districts which adjoined Jhabua and Sidhi respectively were also brought under the scheme in 1972-73.

11.2. Draft master plans of the programme were prepared in June-July 1971 for Sidhi, Dhar and Jhabua districts and in July 1972 for Betul district. In October 1972, the Government of India finally approved schemes to be executed in these districts. Works in the other two districts, for which no regular master plans were prepared, were to be financed out of savings in the four districts originally brought under the programme. Amounts allotted to and expenditure in different districts were as shown in page 35.



District	1970-71		1971-72		1972-73		1973-74		Total	
	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	<i>( In lakhs of rupees )</i>									
Jhabua	Not available	1.63	37.40	22.87	83.97	104.32	103.50	72.76	224.87	201.58
Dhar	do.	1.56	49.00	24.38	58.07	59.45	100.20	83.31	207.27	168.70
Sidhi	do.	1.06	39.00	22.94	69.43	75.48	97.50	91.69	205.93	191.17
Betul	do.	..	8.00	7.87	80.87	83.00	100.20	65.87	189.07	156.74
Khargone	..	..	..	..	1.37	1.43	40.00	17.17	41.37	18.60
Shahdol	..	..	..	..	3.00	1.42	24.00	5.00	27.00	6.42
<b>Total</b>	Not available	<b>4.25</b>	<b>133.40</b>	<b>78.06</b>	<b>296.71</b>	<b>325.10</b>	<b>465.40</b>	<b>335.80</b>	<b>895.51</b>	<b>743.21</b>

11.2.2. Out of the total expenditure of Rs. 743.21 lakhs, Rs. 643.80 lakhs were spent, it was reported, on works and the balance on establishment, tools and plant and certain items misclassified in the accounts. Expenditure on works till the 31st March 1974, the number of works taken up and completed in different sectors of the programme are in Annexure IV.

11.2.3. Under Minor Irrigation, only 35 works (irrigation potential: 1,310 acres) out of 227 works (irrigation potential : 58,514 acres) taken up were completed by the 31st March 1974. Of the remaining 192 incomplete works, only 12 works (irrigation potential : 1,123 acres) were completed till November 1974. All the roads and pasture development works and the ground water survey and soil survey were stopped in July 1973 under instructions from the Government of India. While reports on ground water survey and soil survey were stated to have been prepared, road and pasture development works remained incomplete.

11.2.4. The table given in paragraph 11.2 above would indicate that the major part of the outlay under the programme was in the years 1972-73 and 1973-74. Most of the works taken up under the programme were also approved during these years. After 1973-74, Rs. 88.86 lakhs were spent on 173 minor irrigation works till November 1974 (December 1974 in Dhar district), of which only 12 works in Jhabua district were completed. In July 1975 Government stated that the remaining works would be completed during the Fifth Plan period. In all but one (Sidhi) of the six Programme districts, drought in varying degrees had been reported and Rs. 28.63 lakhs in 1972-73 and Rs. 180.65 lakhs in 1973-74 had been spent on relief measures.

The review was reported to the Government by Audit in February 1975; their remarks are awaited (December 1975).

## PUBLIC WORKS DEPARTMENT

### II ROAD DEVELOPMENT

#### 1. Introduction

1.1. Madhya Pradesh is a large State comprising 45 districts and bounded by 7 States. It is rich in natural resources and has a third of the total area under forests in the country as a whole. An adequate system of roads is an economic necessity for the State to facilitate inter-state and intra-state trade and commerce.

1.2. Systematic planning for road development in the country started with the formulation of the Nagpur Plan in 1943 which was implemented all over the country upto the end of March 1961. This Plan envisaged a road intensity of 16.40 kms per 100 sq. kms and a total road length of 71,600 kms including 40,732 kms of Public Works roads. Actually, the total road length at the end of 1930-61 was 50,169 kms. The Twenty Years Road Development Plan (1961-81) envisaged a road length of 1,45,485 kilometres.

1.3. The State Public Works Department is mainly responsible for the construction of roads, especially surfaced roads and bridges. Other Departments also responsible for construction and maintenance of roads are the Forest, Community Development and Irrigation Departments and, on a much smaller scale, municipal corporations, local bodies, the Military Engineering Service and the Railways. Besides State roads, other centrally sponsored roads are also built and maintained by the State Public Works Department with funds provided through the Central Road Fund and the Railway Safety Works Fund or in the form of loans and grants for famine relief, the Crash Scheme for Rural Employment, the Drought-Prone Areas Programme, the Programme for the Development of roads of Inter-State and Economic Importance, etc.

1.4. Besides these, sections of National Highways which pass through the State are also constructed and maintained by the Public Works Department on behalf of the Government of India on agency basis. At the beginning of the Fourth Plan, the total length of such sections was 2,670 kilometres. During the Fourth Plan period Rs. 38 crores were allotted and Rs. 9.56 crores were spent on road and bridge works on National Highways.

#### 2. Programme in the Fourth Plan

2.1. *Assessment of needs.*—Categorisation of State roads in terms of their relative importance was attempted for the first time in 1965 when the Government declared 18 roads as State Highways formed by grouping together existing roads to provide, immediately or after development and completion of missing links, routes for through traffic from end to end in the State. Their total length was 11,427 kms including 1,438 kms of missing links. Existing roads which served as links between State and National Highways were classified as Major District Roads while smaller and less important roads were categorised as Other District Roads and Village Roads. Standard specifications for road formation,

width of carriageway, thickness and composition of crust, permissible limits of gradients and radius of horizontal curves, *etc.*, of different types of roads were laid down in 1970. As the State Highways and Major District Roads were formed by grouping together existing roads which had been constructed over a period of several decades to varying specifications, they did not conform to these specifications and geometrics and there were very wide variations over different sections of the same road.

2.1.2. A Regional Transport Survey Unit was set-up in Madhya Pradesh in November 1964 to assist the Planning Commission in preparing the transport plan for the country for the period ending with 1975-76 to coincide with the conclusion of the Fifth Five Year Plan as then envisaged. On the basis of traffic surveys conducted in 1964-67 and projection of requirements till March 1971 and March 1976, the Unit suggested (1967) various measures including construction of new roads and bridges, improvement of existing roads, *etc.*, requiring a total investment of Rs. 31 crores during the Fourth Plan and Rs. 60 crores during the Fifth Plan. No action was taken on this report.

2.1.3. The State Public Works Department had separately prepared an inventory of missing links in September 1965 and of missing bridges and bypasses on main roads as well as those needing improvement during 1967 to 1974. The length of missing links was assessed as 1,371 kms and the number of missing bridges as 215. The width and strength of existing roads, bridges and culverts were not surveyed to assess their condition with reference to the intensity of traffic on them. Bridges on State Highways and major district roads constructed during the Fourth Plan were stated to be according to specifications prescribed by the Indian Road Congress, but no attempt was made to test and check the load-bearing strength of old bridges and culverts and thus determine whether they required reconstruction with reference to these specifications. The Department stated that the construction of new roads was taken up "as per requirement" but no record was made available to Audit to show how these requirements were ascertained and evaluated. Information regarding traffic census conducted on 9 selected roads from 1972-73 to 1974-75 was called for from the Engineer-in-Chief, but was available only for 3 roads for 1972-73 alone. For deciding the strength of road pavement of existing roads for future projections, no study was made to determine the number of repetitions of hammer-loads(axle-load). The Department did not consider this necessary because the traffic intensity was not considered so high on the State roads. In fact, intensity of traffic is high on many roads, for instance on the road from Bhopal to Raisen traffic was understood to be 9,400 tonnes a day.

2.2. *Allocation and actual expenditure.*—The State Government originally allocated Rs. 2,500 lakhs for roads. In July 1970, the allocation was raised to Rs. 2,800 lakhs as follows :—

	<i>In lakhs of rupees</i>
(i) Carry-over works	2,000
(ii) Missing links on State Highways and Major District Roads	150
(iii) Major bridges on State Highways	200

	<i>In lakhs of rupees</i>
(iv) Incomplete scarcity roads	200
(v) Tools and plant, establishment, etc.	250
<b>Total</b>	<b>2,800</b>

In October 1970, the allocation was further raised to Rs. 3,000 lakhs by providing a lump sum of Rs. 750 lakhs for 'New Works' in place of items (ii), (iii) and (iv).

2.2.2. The budget allotments actually provided against these allocations, the expenditure incurred, the physical targets set and the corresponding achievements as reported were as under :—

Particulars	Financial progress				Physical targets and achievements		
	Plan allocation	Total annual allotments	Expenditure	Increase (+) Decrease (-)	Target	Achievement	Increase (+) Decrease (-)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		<i>(In lakhs of rupees)</i>			<i>(In kilometres for road lengths and numbers for bridges and rest houses)</i>		
<b>1. Spillover works</b>							
(i) Pucca roads, including upgrading and improvement	} 2,000	1,202.77	} 1,355	(-)645	2,732	1,823	(-)909
(ii) Fair weather roads		57.33			536	493	(-)43
(iii) Major and Medium bridges		593.41			49	55	(+ )6
(iv) Public participation roads		45.91			112	54	(-)58
(v) Incomplete scarcity roads		267.06			242	656	(+ )414
<b>2. New works—</b>							
(i) Pucca roads	} 750	683.22	} 1,663	(+ )913	2,014	1,675	(-) 339
(ii) Major bridges		176.28			37	6	(-)31
(iii) Rest houses		8.57			..	6	(+ )6
<b>3. Tools and plant and establishment</b>	250	464.31	688	(+ )438			
<b>Total</b>	<b>3,000</b>	<b>3,498.36</b>	<b>3,706</b>	<b>(+ )706</b>	<b>5,636</b>	<b>4,701</b>	<b>(-)935</b>
					kms	kms	kms
					86	61	(-)25

Against the plan allocation of Rs.3,000 lakhs, Rs. 3,498 lakhs were provided in annual budgets during the plan period. It is reported that Rs. 3,706 lakhs were spent as per details given below :—

Year	Budget provision	Expenditure
(1)	(2)	(3)
	<i>(In lakhs of rupees)</i>	
1939-70	322	347
1970-71	470	463
1971-72	750	739
1972-73	956	996
1973-74	1,000	1,161
Total	3,498	3,706

Despite the fact that expenditure was substantially higher than estimated, there was considerable shortfall in achievement both in spillover and new works. The main shortfall was in *pucca* roads and major bridges and in spillover works other than scarcity roads. The main reason was stated to be increase in wage rates and cost of materials.

2.2.3. When allocations were being made for different items in the Fourth Plan, it had been assessed that Rs.2,048 lakhs would be required to complete works started in earlier years and remaining incomplete at the beginning of the Fourth Plan. With Rs. 2,000 lakhs provided in the Plan for these spillover works, it was estimated that almost all of them would be completed, leaving only a small number of less important works incomplete. Actually, Rs. 1,355 lakhs were spent on these works during the Fourth Plan period and it was anticipated (October 1975) that Rs. 3,081 lakhs more would be required to complete such of these works as were still incomplete. Similarly, although Rs. 1,663 lakhs were spent on new works against their estimated cost of Rs. 4,068 lakhs and the Plan provision of Rs. 750 lakhs, it was estimated (October 1975) that Rs. 6,131 lakhs more would be needed to complete those still incomplete. The Fourth Plan allocation of Rs. 250 lakhs for tools and plant and establishment charges represented just 9 per cent of the works outlay as against 14-16 per cent provided in 1968-69 and earlier. In fact, actual expenditure was Rs. 688 lakhs. While very precise estimation of the outlay required is neither possible nor, perhaps, essential for deciding on plan programmes or allocations, the substantial difference between what was estimated earlier and what was later found necessary can raise doubts about the soundness of the decisions especially on the size or contents of the programme in consideration of the funds available or likely to be available.

2.3. *Non-adherence to priorities.*—It was the declared policy of the Government to give first priority, during the Fourth Plan, to completion of incomplete works so that investments already made would start yielding results. New works were to be started only in exceptional cases where they were considered essential to exploit economic potential or open up backward areas. Actually, it will be seen that Rs. 1,663 lakhs were spent on new works against the allocation of Rs. 750 lakhs. Of 921 new works started, 254 were those which were not even provided for in the Fourth Plan Programme and included construction of six rest houses at a cost of Rs. 8.07 lakhs.

2.3.2. In test check, it was seen that the Engineer-in-Chief had proposed inclusion of 189 new works in the Budget Estimates for 1973-74, recommended to him by different persons. The Departments of Public Works and Finance advised that starting these new works and depriving continuing works of scarce funds would not be prudent; Government ultimately decided to include 48 of these works costing Rs. 1,900 lakhs in the Budget Estimate for the year 1973-74. The reasons for which the 48 roads were included were neither recorded nor intimated to Audit (December 1975).

2.3.3. The number of works remaining incomplete at the beginning of successive plan periods has risen steadily from 741 works at the beginning of the Third Plan to 1,185 works at the beginning of the Fourth Plan and 1,550 works at its conclusion. Amounts required to complete such incomplete works also increased over this period as shown below :—

Plan	Plan allocation	Incomplete works taken to next Plan	
		Number	Anticipated further expenditure
(1)	(2)	(3)	(4)
	(In lakhs of rupees)		(In lakhs of rupees)
II	988	741	961
III	1,547	1,185	2,048
		(left over from Annual Plan for 1968-69)	
IV	3,000	1,550	9,212

Roads left incomplete were generally those where earthwork and collection of material had been done and consolidation was left over or where the road itself had been constructed but construction and widening of culverts and minor bridges was not complete. In the former case, the uncompacted earthwork was vulnerable to the ravages of the weather and the materials at the roadside were liable to pilferage; in either case, the road could not be brought into full use. Delay in the completion of a work also resulted in increase in cost and the increase in the total number of continuing works on hand involved increased expenditure on watch and ward, maintenance and on supervisory staff.

2.3.4. As estimates for the construction of a road proper and for bridges and culverts on it are often prepared separately and treated as separate works, it is possible that some roads which were reported to have been completed may be without bridges and culverts. A test check in Sehore, Vidisha and Bastar districts showed that on 6 roads, 412.1 kms long, which were treated as completed, only 185 bridges and culverts had been constructed against 615 bridges and culverts which were required. Some more instances noticed are mentioned later.

2.4. *Achievement in non-plan sector.*—Apart from works included in the Plan, many schemes financed from the non-plan budget or from funds received from the Government of India were also executed by the State Public Works Department during the Fourth Plan period. No systematic programme of construction and completion of such roads was prepared for the Fourth Plan and works were started as and when sanctioned. The achievements and expenditure as reported were:—

Class of works	Number of works	Length of roads	Estimated cost	Expenditure incurred	Physical progress upto end of March 1974	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		<i>(In kilometres)</i>	<i>(In lakhs of rupees)</i>			
1. Inter-State Roads	17 roads 3 bridges	(A) 787.6	406.22	(A) 301.79	129 kms of roads upto second coat of metal and 2 bridges	(A) Includes Rs.209.88 lakhs spent upto March 1969 on 237.5 kms of roads and 2 bridges under construction at the commencement of the Fourth Plan.
2. Central Road Fund works	32 roads 20 bridges	(B) 1,107.8	603.85	(B) 451.61	530.8 kms of roads upto first coat of metal, 95.0 kms upto second coat and 14 bridges	(B) Includes Rs. 235.97 lakhs spent upto March 1969 on 404.8 kms of roads under construction at the commencement of the Fourth Plan.



Class of works	Number of works	Length of roads	Estimated cost	Expenditure incurred	Physical progress upto end of March 1974	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	( In kilometres )		( In lakhs of rupees )			
3. Roads constructed with relief funds		Not available				
4. Crash Scheme for Rural Employment	1271 roads	5,158.94	1,348.68	791.05	1,203.28 kms upto first coat of metal and 457.55 kms upto second coat	..
5. Drought-Prone Areas Programme	23 roads	Not available	155.63	70.63	Not available	..
6. Roads in Tawa command area	15 roads	206.48	197.42	63.72	51.70 kms of roads upto first coat of metal and 18.20 kms upto second coat	..

2.4.2. The Crash Scheme for Rural Employment was executed by the State Government from 1971-72 to 1973-74. It was fully financed by the Government of India. A review of this scheme appeared in Chapter III of the Report of the Comptroller and Auditor General of India for 1972-73.

2.4.3. The Drought-Prone Areas Programme was also a centrally aided programme which was implemented during the same period and comments thereon have been incorporated in the review of expenditure on relief of distress caused by natural calamities which also appears in this Report.

2.5. *Black-topping of water-bound macadam roads.*—At the end of 1969-70, the State had 11,945 kms of *pucca* metalled roads with water-bound macadam surface. In 1970-71, a 10 year programme was undertaken to provide 1,500 kms per year with asphalt topping; expenditure was proposed to be financed

from non-plan resources. Expenditure incurred and achievements claimed under this programme during the Fourth Plan period were as shown below :—

Year	Budget provision	Actual expenditure	Length black-topped
(1)	(2)	(3)	(4)
	<i>(In lakhs of rupees)</i>		<i>(In kilometres)</i>
1970-71	125.00	120.00	Not available
1971-72	130.00	108.82	Not available
1972-73	115.00	96.69	1,369
1973-74	136.60	136.60	1,160

Despite this effort, the total length of water-bound macadam roads had risen to 14,502 kms at the end of 1973-74, the main reason being completion of a large number of such roads with relief funds and under the Crash Scheme for Rural Employment.

### 3. Execution of work

3.1. *Review in Audit.*—Records pertaining to works executed on State Highways No.5 and No.18 and district and village roads in Bastar and Vidisha districts were reviewed. The records pertaining to a few other roads and bridges were also test checked. Progress of work and points of interest noticed are mentioned in Sections 5 to 9.

3.2. *Incomplete roads.*—From these sections, it will be seen that many works have been under execution for long periods. Details of another 64 such works are given in Annexure V. It will be seen that these roads and bridges were completed, or are scheduled to be completed, 13 to 30 years after they were started. *Inter-alia*, on some roads while the road proper was complete, construction of minor bridges and culverts was lagging behind. It was noticed that 23 roads (591.8 kms) started during the first three Plans or earlier, were not entirely complete as some bridges and culverts were still to be completed. On two roads, 3 medium and 72 minor bridges were necessary but till March 1974 none had been constructed. On the other 21 roads, 158 major and medium bridges and 1,034 culverts were required, of which till March 1974, only 83 major and medium bridges and 373 culverts had been constructed. Work on six of these roads had commenced between 1942 and 1951.

3.3. *Bridges without approach roads.*—There were some cases in which bridges were completed but could not be brought into use for long periods because approach roads were not constructed. One such instance was the high-level bridge on Betwa river on the Bhopal-Raisen road. As the existing low-level bridge over the river was frequently submerged and traffic was blocked, the State Government sanctioned, in December 1963, construction of a high-level bridge at a cost of Rs.4.87 lakhs. Tenders for the bridge were invited in 1971 and work started in February 1972. The bridge was practically complete (August 1975) except for provision of railings and kerbs. Tenders for construction of approach roads

were invited in January 1974. The work order was not, however, issued nor had fresh tenders been invited (July 1975). The delay is because the cost of the bridge with the approach roads is now estimated to be Rs. 34.56 lakhs and approval to this revised cost, sought for in August 1974, was awaited.

Another instance was the bridge over Chamla river near Barnagar which was completed at a cost of Rs.15 lakhs in October 1973 but the approach roads for which were still under construction (October 1975).

3.4. *Survey and designs.*—Instances were noticed where designs and estimates were based on inadequate or incorrect data and had later to be modified substantially which increased the cost and also delayed the work. Apart from what is mentioned in later sections, other instances are :—

(a) On the basis of a survey conducted, drawings and designs were prepared for a bridge, 2500 feet long, over Mahanadi river on the road from Raigarh to Sarangarh and tenders were invited. While giving the layout to the contractor in 1966, the survey data were found to be defective and the length had to be increased to 2700 feet. The design of the bridge had to be revised as construction of two more spans at an additional estimated cost of Rs. 3.69 lakhs became necessary.

(b) A contract was awarded in 1968 for Rs. 29.43 lakhs for a bridge, 1693 feet long over Mahanadi river on the Rajim-Deobhog road. Later, it was found that the length should have been 1767 feet. Another span had to be added for which Rs. 1.17 lakhs were paid. The bridge was completed in October 1971.

(c) Construction of a road from Annuppur to Kotma, 30 kms long, was sanctioned in December 1962. Work was started in January 1963 and was completed in March 1975. The estimated cost of this road has increased from Rs. 7.40 lakhs successively to Rs. 8 lakhs in September 1963, Rs. 15.50 lakhs in May 1971 and Rs. 17.16 lakhs in January 1974. These estimates were yet to be approved. One reason for the increase in cost was that in the original estimates only 38 minor bridges, culverts, etc., were provided whereas it was later found that 68 minor bridges, culverts, etc., had to be constructed.

3.5. *Administrative approval and technical sanction.*—According to rules, no work is to be started without first obtaining the administrative approval of the Government or other competent authority. If at any time during execution, the actual cost exceeds the amount so approved by more than ten per cent, approval is to be obtained again for the increased cost. Revised administrative approval is also to be obtained whenever the earlier approval has not been acted on for over three years or when there are substantial deviations from the plans on the basis of which the original administrative approval was obtained. Instances of failure to observe these requirements were noticed repeatedly during periodic inspection of Public Works Divisions and brought to the notice of appropriate authorities. The Chief Technical Examiner had also pointed out in his annual reports for 1972-73 and 1973-74 that three road and bridge works had been started in 1972-73 and 20 works

in 1973-74 without administrative approval and that the expenditure incurred on 843 roads and bridges was greater than amounts approved by more than ten per cent. Instances of work started without approval or technical sanction or where expenditure was likely to exceed the amount approved or substantial deviations from the approved estimates occurred but where approval to these deviations have not been obtained were noticed. Apart from what is mentioned later, a few instances are given below :—

(a) *State Highway No. 22 (Darri-Korba ring Road)*.—The administrative approval to this road, 21 kms long, accorded in June 1966, provided for construction of four medium bridges and 23 Hume pipe culverts at an estimated cost of Rs. 5.23 lakhs. Actually, three major bridges, three medium bridges and 42 crossings were constructed. Administrative approval to these deviations had not been obtained (October 1975).

(b) For the high-level bridge over river Betwa on the Bhopal-Raisen road mentioned in para 3.3 above, administrative approval was not obtained afresh before work was started in February 1972, even though original approval (for Rs. 4.87 lakhs) was accorded much more than three years earlier. Government's approval to acceptance of the tenders of Rs. 18 lakhs for the bridge proper was obtained in January 1972, but Government had desired that administrative approval should be obtained for the revised estimates. Fresh approval to this work was particularly necessary as the estimate of expenditure for the bridge and approach roads had been revised to Rs. 24.69 lakhs in November 1970 and thereafter by stages to Rs. 34.56 lakhs in May 1974. Revised administrative approval was awaited (December 1975).

3.6. *Research and development*.—The Department has a Central Research Laboratory and eighteen Circle-level laboratories which have been engaged, mostly, in conducting laboratory tests of soils, strength of concrete, mortars, aggregates and bricks as well as some field tests of foundation strength and C.B.R. (California Bearing Ratio) value of soils. No research was undertaken on matters connected with traffic and highway engineering or, in particular, on problems encountered during construction of roads and bridges. The Engineer-in-Chief explained (October 1974) that these matters were being dealt with by the Central Road Research Institute and the Indian Road Congress.

3.7. *Technical audit and quality control*.—In 1972, the Government created a separate organization for technical audit of important completed works and works in progress with reference to quality, time schedule, execution of contracts, etc. It is headed by an officer of the rank of a Chief Engineer who has been designated the Chief Technical Examiner and functions under the administrative control of the General Administration Department. It has brought out annual reports on the work done by it in 1972-73 and 1973-74. Besides recital of various types of irregularities found, these reports contained certain suggestions for changes in procedures connected with lump sum contracts for bridges which were meant to

speed up execution. The action taken by the Government on these suggestions could not be ascertained (October 1975).

#### 4. Maintenance

4.1. The main purpose of maintenance of roads is to keep them in good condition, with smooth riding surface, good berms, road signs, and also includes upkeep of bridges, culverts and rest houses lying on the road. Expenditure on maintenance is broadly divided into three parts, *viz.*,

Part I—Permanent gangs, work-charged staff, rest houses, road signs, kilometre stones, *etc.*,

Part II—Renewal of crust,

Part III—Improvements.

4.2. According to the Manual of the State Public Works Department, the funds required for maintenance of each road are first assessed taking into account all relevant factors affecting the cost of maintenance, and then approval of Government obtained. The requirement thus assessed is known as Road Scheme Allowance and is revised as and when wide fluctuation occurs in price levels. The road scheme allowance had not been got approved by the Government since the present State of Madhya Pradesh was formed. The Department intimated (January 1975) that the matter was under examination with the Government and the Engineer-in-Chief.

4.3. In the absence of approved rates of road scheme allowance, provision for maintenance in the budget each year is assessed *ad-hoc* by applying some uniform rates per kilometre of road. The rates adopted in different years were as follows:—

1969-70	No uniform scales related to length of roads
1970-71	Rs. 1,875 per km for surfaced roads only
1971-72	Rs. 2,000 per km for surfaced roads Rs. 1,000 per km for murrum roads Rs. 300 per km for earthen roads
1972-73	Rs. 2,200 per km for surfaced roads
1973-74	Rs. 1,000 per km for murrum roads Rs. 300 per km for earthen roads

The provision for maintenance made in each year during the Fourth Plan and the actual expenditure were :—

Year (1)	Budget provision (2)	Expenditure (3)
	<i>(In lakhs of rupees)</i>	
1969-70	763	622
1970-71	891	755
1971-72	748	818
1972-73	678	898
1973-74	716	899

It will be observed that in the first two years, the amounts provided were not fully spent. In 1959-60 in particular, the average expenditure on maintenance per kilometre of surfaced road was lower in Madhya Pradesh than in six of the seven States which have common borders with it.

4.4. The crust of a road has to be renewed at least once in 5 years and the maintenance grant covers not only ordinary repairs but also renewal of road crust. Information about the total length of roads on which the crust was renewed during the Fourth Plan period was not available. However, in test checks in Vidisha district, it was noticed that on an average, the crust was being renewed once in ten years or longer.

#### 5. State Highway 5—Dhanwar-Deobhog Road

5.1. State Highway 5 traverses a distance of 650 kms from Dhanwar (Surguja district) on the border with Uttar Pradesh in the north-east to Deobhog (Raipur district) near the border with Orissa in the south-east. It passes through the districts of Surguja, Bilaspur and Raipur and links their administrative headquarters by a direct route. It has the following main sections:—

(i) Dhanwar to Ambikapur	114 kms
(ii) Ambikapur to Bilaspur <i>via</i> Katghora	203 kms
(iii) Bilaspur to Raipur	111 kms
(iv) Raipur to Deobhog <i>via</i> Abhanpur	222 kms

On the last section, it merges with National Highway 43 for a distance of 27 kms from Raipur to Abhanpur.

5.1.2. The completion of the section from Dhanwar to Ambikapur will provide Ambikapur with a direct all weather link with the border of Uttar Pradesh and Varanasi. It will also help to open up and develop the remote northern region of Surguja district which had no all weather roads at all and where even some Tehsil headquarters, Block headquarters and a number of police stations remained completely cut off during the rainy season. The completion of the section from Ambikapur to Katghora will provide Ambikapur an easy and direct access all the year round to Bilaspur which is the seat of the Revenue Commissioner and a direct route to Raipur. By providing an easy all weather access to an important railhead like Bilaspur to the areas through which it passes, it will help farmers in large backward tracts of Surguja district to find profitable markets for the rice they produce. Exploitation of rich forest resources which Surguja possesses and its potentially rich deposits of coal and mica would be facilitated.

5.1.3. The stretch from Ambikapur to Katghora in the Ambikapur-Bilaspur section and the section from Dhanwar to Ambikapur had to be built up to State Highway specifications by improving existing fair-weather roads and forest roads and by providing bridges and culverts where necessary. Work on the former section was started in the Second Plan period and continued during the

Fourth Plan period and work on the latter section was commenced during the Fourth Plan period. Both were incomplete in April 1974 and were being continued during the Fifth Plan period.

5.1.4. The sections from Bilaspur to Raipur and from Raipur to Deobhog were completed long before the commencement of the Fourth Plan and only the following works were executed during that Plan period :—

(i) Construction of two major bridges on the stretch from Abhanpur to Deobhog started during the Third Plan period was completed in the Fourth Plan period.

(ii) Against 238 medium bridges and culverts needed on the Raipur-Deobhog section, 218 bridges were taken up and completed.

(iii) Only some preparatory work was done on one major high-level bridge on the Shivnath river at Nandghat on the Bilaspur-Raipur section to be constructed in place of an existing submersible bridge as traffic is often blocked at that point. Construction of this bridge was still to commence (December 1975).

5.2. *Dhanwar-Ambikapur Section.*—Administrative approval for improvement of the road, 114 kms long, at a cost of Rs. 21.88 lakhs was accorded in December 1971. Till December 1974, Rs. 12.35 lakhs had been spent and 11 kilometres of the road had been completed upto consolidation of the second coat of metal. Boulder soling had been done on another 18.5 kms while only earthwork or earthwork and material collection had been done on further 13.5 kms. No work had been done on the remaining 71 kilometres.

5.2.2. Construction of two major bridges on this section at Moran and Mohan was started during the Fourth Plan period and both were incomplete at the end of that period. The progress of work was as follows :—

(i) *Moran bridge.*—Administrative approval for Rs. 6.13 lakhs was accorded in June 1973 and work order issued in September 1973. Till March 1974, Rs. 1.10 lakhs had been spent and excavation and earthwork for the foundations of piers was in progress.

(ii) *Mohan bridge.*—Administrative approval for Rs. 18.17 lakhs was accorded in December 1972. Till March 1974, Rs. 0.19 lakh had been spent on earthwork on approaches and construction of the bridge proper had not commenced.

5.2.3. Administrative approval for Rs. 22.11 lakhs had been accorded (December 1971) for construction of 24 medium bridges on this section. Only one of them had been completed and work on eleven more was in progress. Work on the other 12 bridges was yet to be started (September 1975).

5.3. *Ambikapur-Katghora stretch of Ambikapur-Bilaspur Section.*—Administrative approval for improving the road portion of this stretch, 125 kms long, at a cost of Rs. 18.29 lakhs was accorded in June 1959 and work started in the same year. A revised approval for Rs. 21.93 lakhs was accorded in May 1966. Till December 1974, Rs. 29.76 lakhs had been spent and 104.3 kms of the road had

been completed upto consolidation of the second coat of metal. Boulder soling had been done on another 12.6 kms while only earthwork or earthwork and collection of material had been completed on 4.2 kms. No work had been done on the remaining 3.9 kilometres.

5.3.2. Two major bridges at Atom and Chulhat which were under construction at the commencement of the Fourth Plan were completed during that Plan period. Administrative approval to the construction of these two bridges as well as three more at Ghumgutta, Reind and Chandnai at a cost of Rs. 12.81 lakhs was accorded initially in November 1962 and was subsequently revised to Rs. 43.18 lakhs in August 1973. Lump sum contracts for the construction of these three bridges were entered into in 1973-74 and work orders issued in January 1974. Expenditure incurred till December 1974 was as follows:—

Name of bridge	Amount of contract	Expenditure till December 1974
(1)	(2)	(3)
	<i>(In lakhs of rupees)</i>	
Ghumgutta	13.25	0.80
Reind	6.35	1.63
Chandnai	8.40	2.87

5.3.3. Besides these, administrative approval for construction of 144 minor bridges and culverts at a cost of Rs. 13.54 lakhs had been obtained and 139 of them completed. Work on one of them was in progress while the remaining four had not yet been taken up (March 1975).

5.4. *Katghora-Bilaspur stretch (78 kms.) of the Ambikapur-Bilaspur Section.*— The only work done in this section during the Fourth Plan period was on two major bridges on the rivers Tan and Hasdeo. Administrative approval for construction of the bridge on Tan river at a cost of Rs. 4.14 lakhs was accorded in December 1963 and a contract was entered into in April 1964. After Rs. 2.04 lakhs had been spent, the work was stopped in January 1966 because of a dispute with the contractor over dewatering. Subsequently, the design of the bridge was changed from a submersible bridge with open foundations to a high-level bridge with well foundation and a lump sum contract for Rs. 12.50 lakhs was entered into with another firm in March 1973. Till March 1974, Rs. 7.65 lakhs had been spent on the bridge; out of 11 spans (seven of 40 feet each and four of 20 feet each) to be constructed, only 4 spans (of 20 feet each), had been completed in addition to 4 piers and both abutments. Work on the fifth pier was in progress.

Administrative approval for construction of a submersible bridge on Hasdeo river at a cost of Rs. 5.41 lakhs was accorded in November 1971. A tender for the construction of the bridge was accepted in January 1973 and till March 1974,



Rs. 4.74 lakhs had been spent. All seven piers and one abutment on the Ambikapur side had been completed.

5.5. *Bilaspur-Raipur Section*.—The only work taken up on this section in the Fourth Plan period was the construction of a high-level bridge at Nandghat on Shivrath river to replace the existing submersible bridge as the traffic gets often blocked there. Administrative approval for Rs. 29.18 lakhs was accorded in December 1971. Subsequently, the estimate was revised and technically sanctioned for Rs. 57.12 lakhs; revised administrative approval was accorded for Rs. 59.73 lakhs in April 1973. The increase in cost was stated to be due to an increase in the length and height of the bridge to cope with high flood levels as subsequently reported. Tenders have not been invited although technical sanction and administrative approval were accorded more than two years ago (December 1975).

Although the estimate did not provide for construction of staff quarters and godowns and work on the bridge itself had not even commenced, Rs. 1.85 lakhs were utilised on construction of staff quarters and cement godowns in Raipur city, 64 kilometres away.

5.6. *Abhanpur-Deobhog stretch of the Raipur-Deobhog Section*.—As already stated, two major bridges on the Mahanadi at Rajim and Udenti and 218 medium bridges and culverts out of 238 bridges, etc. (administrative approval for Rs.27.58 lakhs) had been constructed on this section. Ten bridges were not taken up as the reaches on which they were to be located were likely to be submerged by the Paury Anicut Reservoir.

## 6. State Highway 18—Gujarat Border to Sagar

6.1. This road connects Ahmedabad in Gujarat with Sagar and traverses a distance of 493 Kilometres through Jhabua, Dhar, Ujjain, Dewas, Sehore, Bhopal, Raisen and Vidisha districts. At Sagar, it joins State highway 14 which goes further to the eastern border of the State and provides a link to Ranchi in Bihar. The route of this highway is important because it caters to the traffic between Madhya Pradesh and Gujarat and also connects the backward areas of Jhabua and Dhar districts with other important districts of the State.

6.2. *Missing links*.—The road was declared a State highway by grouping together a number of existing roads in 1965 when the following stretches of the road and bridges were still to be built :—

### (A) *Missing links*—

1. Limbdi-Thandla	29.0 kms
2. Thandla-Petlawad	24.4 kms
3. Petlawad to Dhar border (some portion was a fair-weather road)	25.5 kms
4. Dhar border to Badnawar	28.6 kms
5. Bhopal-Diwanganj	23.4 kms
6. Diwanganj-Salamatpur	13.2 kms
Total	144.1 kms

(B) *Bridges*—

1. Bridge over Padmavati river on the Limbdi-Thandla section
2. Bridge over river Pampavati on Kanwan-Petlawad section
3. Bridge over Ladki river on the Petlawad to Jhabua border section
4. Bridge over Mahi river between Jhabua and Dhar borders
5. Bagri bridge near Badnawar
6. Chamla bridge on the Ujjain-Barnagar section
7. Chambal bridge in km 23 of the Ujjain-Barnagar section
8. Ghambir bridge in km 15/10 of the Ujjain-Barnagar section
9. Bridge over Datana Matana *nalla* in km 179/8
10. Bridge over Narwar *nalla* in km 173/10
11. Bridge over Ghora Pachhar *nalla* between Diwanganj and Salamatpur
12. Bridge over Neman river on Vidisha-Sagar section
13. Bridge on Sindh river on Vidisha-Sagar section

6.2.2. Soon after the road was declared as a State highway, construction of the missing links was started. Work on the longer missing links in Jhabua, Dhar, Bhopal and Raisen districts was in progress at the commencement of the Fourth Plan. Similarly work had also been started on five of the missing bridges on the Chamla, Chambal and Ghambir rivers and Narwar and Datana Matana *nallas*. While the bridge on Narwar *nalla* had been completed, the other four bridges started in 1962, 1965, 1963 and 1969 respectively were in progress at the commencement of the Fourth Plan.

6.3. Work on the missing links continued during the Fourth Plan period and at its end, the following stretches were still incomplete:—

- (i) From Limbdi to Thandla—Widening and construction of cross drainage works on 29 kms.
- (ii) From Thandla to Petlawad—24 kms., work on which commenced after 1968-69
- (iii) From Kanwan to Petlawad (25.5 kms.)
- (iv) From Diwanganj to Salamatpur (13.2 kms.)

Besides these, short stretches of the road which are bypasses to Badnawar and Barnagar were also incomplete. The Divisional Officers concerned attributed slow progress to paucity of funds and preoccupation with scarcity works.

6.3.2. The bridges on river Chambal, Ghambir and Sindh (started in 1970) and on Datana Matana *nalla* were completed and opened to traffic in 1973. Construction of the bridge on river Neman (serial No. 12) was started in March 1972. Government's approval to construction of three bridges (serial Nos. 2 to 4) had not yet been accorded (December 1975). Construction work on two more bridges (serial Nos. 1 and 11) had not been started (December 1975).

6.3.3. An examination of the reasons for the delay in completing these bridges showed that time was taken in selecting sites and preparing designs. Sites selected and designs approved earlier were changed, apparently because they were not based on sufficient or accurate appreciation of technical aspects. Details of a few such cases are set out below :—

(i) *Bridge on the Neman river.*—This bridge is situated on km 91/6 on the Vidisha-Sagar Section. The work was administratively approved in 1963 for Rs. 2.82 lakhs. Time was taken in collection of design data and the Chief Engineer finalised the outline design in 1968. As the estimated cost according to this design was more than the amount of the original administrative approval, proposals to obtain revised approval were framed, initially in September 1968 for Rs. 16.54 lakhs and again in July 1969 for Rs. 10.80 lakhs. Both proposals were based on rough (stage I) estimates. As detailed survey had been already done and hydraulic data necessary were available, the Government desired that the proposals be reframed on the basis of detailed (stage II) technical estimates. The required estimate was prepared in August 1970 and revised approval of the Government obtained in April 1971 for Rs. 11.45 lakhs. The delay of five years in collection of design data was attributed by the Executive Engineer to frequent changes in the site and time taken to decide the type of the bridge. The estimate prepared in 1968 was for a high-level bridge but in 1969, it was again prepared for a high-submersible bridge and finally, in 1970 it was decided to construct a high-level bridge.

For approach roads, Rs. 0.50 lakh were provided in the detailed estimates for Rs. 11.45 lakhs approved in April 1971. In 1974, after site inspection by the Engineer-in-Chief, the alignment and height of the approach roads had to be changed and the cost was estimated at Rs. 6.95 lakhs.

The bridge portion was awarded to a contractor in March 1972 to be completed in June 1976 and work upto pier level had been done by March 1975. The contract for the approach roads was finalised in November 1975.

(ii) *Ghora Pachhar Bridge.*—This bridge is at km 33/2 of the Diwanganj-Salamatpur section and was initially included in the composite administrative approval accorded by the Government in 1964 for Rs. 8.56 lakhs for improvement of minor bridges, etc., on this section. As the estimated cost of the bridge was higher than what was provided at the time of taking administrative approval, a fresh proposal for a high-level bridge on open foundations for Rs. 3.67 lakhs was submitted to the Government in January 1972 and approval obtained in April 1972. Thereafter, design data were collected and, in December 1972, it was decided to construct a high-level bridge on well foundations at a cost of Rs. 8.92 lakhs. Proposals for obtaining revised administrative approval were sent to the Government in September 1973; their approval was awaited (February 1975). Meanwhile, tenders were invited in February 1975, without waiting for the Government's revised approval.

The missing link from Bhopal to Diwanganj completed in March 1974 at a cost of Rs. 19.55 lakhs would be fully utilised only after this bridge is completed. Completion of the bridge and residual work on road on this stretch of the Highway will shorten the distance between Bhopal and Sagar by 20 kms and save a considerable amount in transport costs and fuel. The extent of the probable saving may be visualised from the fact that traffic on the existing longer route from Bhopal to Sagar in Raisen Division was reportedly of the order of 9,400 tonnes a day in May 1971.

(iii) *Bagri bridge*.—Construction of the bridge over the Bagri river formed part of the work on the Badnawar-Sardarpur section in Dhar district for which administrative approval was accorded by the Government in July 1959. The site was on a stretch of this road from Badnawar to the road junction near Bhasola which became a part of State highway 18 in 1965. The design of the bridge was approved by the Chief Engineer in August 1963, four years after the administrative approval was accorded. Later, the cost of the bridge went up and, at the instance of the Government, a revised (stage I) estimate for the bridge portion only for Rs. 8.34 lakhs was submitted in November 1970, 11 years after the original administrative approval. Administrative approval for the bridge was ultimately accorded for Rs. 10.39 lakhs in November 1972 and the technical sanction in March 1973 for Rs. 9.27 lakhs. Tenders were invited in March 1974 and one of the tenders based on the contractor's design was accepted for Rs. 10 lakhs in January 1975. Revised technical sanction for Rs. 10.92 lakhs was also accorded by the Chief Engineer in 1973-74. Thus, it took the Department 4 years to prepare the design, 9 years to obtain the revised administrative approval and 2 more years to finalise the contract.

(iv) *Chamla bridge*.—Construction of a bridge over Chamla river at km 45/4 near Barnagar at a cost of Rs. 4.86 lakhs was approved by the Government in December 1962. Revised administrative approval was accorded for Rs. 13.80 lakhs in June 1968 and for Rs. 30.77 lakhs in October 1975. The cost was stated to have gone up mainly due to acceptance of a lump sum tender based on the contractor's design, increase in length and width of approach road, construction of culverts on the approach road and general rise in costs of construction.

Construction started in 1970 and the bridge portion was completed in October 1973 at a cost of Rs. 15 lakhs exclusive of pending claims of the contractor. The approach roads were under construction (October 1975). The fact that progress on the approach roads had been slow was known to the Chief Engineer and the Superintending Engineer who have repeatedly desired that the approach roads should be completed. According to the Executive Engineer, delay had occurred because earth had to be brought from a long distance and the Government's approval to acquire the *Mandi* Committee's land was received late; construction by the Railways of a level-crossing on the approach road was also delayed.

6.4. On the following stretches, expenditure was significantly higher than estimated or as calculated from norms prescribed. Reasons for the excess expenditure had not been analysed (March 1975):—

(i) *Thandla-Harnagar-Bahwasa Section (29 kms).*—The construction of this section was started with scarcity funds in 1966-67 and work on the road portion had been practically completed by 1973-74 at a cost of Rs.12.29 lakhs, but construction of culverts and bridges was still to be taken up. Expenditure on 29 kms of the road as calculated on the standardised scales of cost prescribed by the Engineer-in-Chief, after allowing for differences between the standard specifications and those actually adopted, should have been less, as shown in Annexure VI.

(ii) *Bhopal-Diwanganj Section.*—According to the administrative approval given in October 1964, the cost of this section should have been Rs.8.39 lakhs. Actual expenditure till August 1974 was Rs.19.29 lakhs for the road portion and cross drainage works. A revised estimate for Rs.19.55 lakhs, prepared on the basis of actual expenditure, had not been technically sanctioned so far, as the revised administrative approval was awaited (October 1975). Actual expenditure on the road portion alone, according to this estimate, was Rs.11.87 lakhs. Expenditure on the work according to the standard scales, after making allowance for differences in specifications, should have been Rs.8.46 lakhs as shown in Annexure VII. The extra expenditure of Rs.3.41 lakhs was incurred mainly on earth work (Rs.1.43 lakhs), collection of material (Rs.0.91 lakh) and consolidation (Rs.0.48 lakh). The Executive Engineer could not account for these excesses and promised to look into them (March 1975).

6.5. *Bypasses.*—Important roads like National Highways and State Highways carry heavy vehicular traffic and need bypasses around congested urban areas so that through traffic may move smoothly without hold up or increasing the risk of accidents.

State Highway 18 passes through five towns or cities where new bypasses were considered necessary:—

6.5.2. *Bybass around Ujjain.*—A diversion road, 3.60 kms long called the Jaisinghpura diversion road, was constructed in 1968 to provide the highway with a bypass around Ujjain city. As this stretch has a low causeway on the Kshipra river which gets submerged even after moderate rains and also two level crossings on the railway line at which through traffic is slowed down, it never became popular and traffic census showed that less than 20 per cent of vehicles passing Ujjain on the highway used it. The Executive Engineer has recently proposed an alternative route connecting State Highway 27 and avoiding a separate crossing of Kshipra river.

6.5.3. *Badnawar bypass.*—Construction of a bypass around Badnawar which would also be the last 3 kilometres of the Sardarpur-Badnagar road was started in 1959 and is still incomplete because of land acquisition problems. According

to the Executive Engineer, the work is likely to be completed by the end of March 1976.

6.5.4. *Sonkatch Diversion.*—In November 1972, the Government approved construction of the bypass for Rs.1.49 lakhs. The alignment of the bypass which was approved by the Collector in June 1969 had to be changed in November 1973 as it passed through the land of the local *Mandi Samiti*. A revised estimate on the basis of a new alignment is yet to be submitted by the Division. The delay was stated to be due to the fact that the Engineer-in-Chief had suggested the construction of a new high-level bridge over Sindh river in place of the existing submersible one near the town and the proposed bypass had to be connected to the approach of the new bridge. Detailed survey for such a bridge was yet to be conducted and a decision taken (February 1975).

6.5.5. *Thandla Diversion.*—Proposals for the construction of a bypass, 1.20 kms long, on the basis of a preliminary (Stage I) estimate for Rs.0.76 lakh were submitted to the Collector of Jhabua for according administrative approval under scarcity relief programme. Funds were also provided in the Public Works Department's grants for 1972-73, 1973-74 and 1974-75. But administrative approval had not been given nor construction had commenced (February 1975).

6.6. *Overbridges.*—There are two busy level-crossings on this Highway in Sagar and Vidisha towns to replace which construction of overbridges had been considered. Provision of funds for an overbridge at Sagar was made in the budget (for 1973-74) and the proposal was under consideration of the Government. There is no proposal for Vidisha town.

6.7. *Condition of the Highway.*—A major portion of the road falling within Ujjain and Vidisha districts is very old and specifications of the road in these districts, it was reported, do not conform to State Highway standards. The road is mostly single lane and passes through black cotton soils. Due to increase in traffic and the poor strength of road pavement, the condition of the road has been steadily deteriorating. As strengthening of the road crust would involve heavy investment, the Engineer-in-Chief suggested that deterioration of the road could be checked if stretches on black cotton soil are made double lane. The stretch between Bhopal and Ujjain has been recently widened; widening of the section between Bhopal and Sagar *via* Vidisha and between Ujjain and Badnawar was not undertaken in the Fourth Plan period.

6.7.2. In Vidisha Division, in particular, culverts and minor bridges have mostly not been built and only *raptas* or metalled dips have been provided. Construction of culverts is not contemplated for the present. Further, culverts on stretches of the road which have been widened to double lane between Bhopal and Ujjain were not widened simultaneously and remain narrow and consequently traffic hazardous.

6.7.3. The Superintending Engineer and Engineer-in-Chief had recorded, after inspections, that the general condition of the road was unsatisfactory,

especially in reaches where the pavement was constructed according to the old and orthodox method. Because of poor crust thickness and disturbance of boulders in the sub-base on account of increasing traffic load and treacherous behaviour of the black cotton soil, the road had deteriorated considerably at places.

To give immediate relief in such cases, patch repairs or soling with 40 mm metal is resorted to and the cost debited to the annual maintenance allotment. This consumed a good portion of the maintenance grant without providing a permanent solution.

6.7.4. Patch repairs could stretch the life of a new surface by only 3 to 6 years and after that, a good part of the metalled portion is covered by patch work and further work of this type does not help in removing rapid deterioration in riding quality. Renewals of crust on State roads are to be done once in 5 years. On this highway, the crust had been renewed only once in the last 10 years.

6.8. *Flood damage.*—The road is affected by floods practically every year because of low embankment. In Vidisha district, the entire length between kilometres 86 and 96 and all culverts are submerged. In Ujjain district too, water flows over the road at more than 30 places. The road is consequently damaged severely every year. Special repairs are carried out from the annual repairs grant. Such expenditure in 1973 amounted to Rs.5.58 lakhs in these two districts.

6.8.2. During the floods in August 1973, about 650 feet of the approach road to the Ghambir bridge on the Ujjain side was washed away, causing damage assessed at Rs.1.60 lakhs. In the opinion of Superintending Engineer, the damage could have been minimised, if not avoided, had the approach road not been constructed on an embankment. He pointed out that as the Ghambir bridge was submersible, the approach road should have been in a cutting and not on an embankment. The pitching on the earthwork was also defective as it was done with very large boulders. Also, no cross drainage had been provided in the approach road at km 15/6 where it crossed a *nalla*. Although the Superintending Engineer had found, *prima facie*, defective design and work, no further investigation has been conducted to determine responsibility for the bad design, workmanship or both, and no steps have been taken to ensure avoidance of such lapses in future.

6.8.3. Stretches of the highway in kms 137, 138, 141 and 142 in Dewas district which had been widened only in 1970-71, sank in the rains of 1973. The Engineer-in-Chief asked (December 1973) for a detailed investigation into the case to fix responsibility for the damage resulting in a loss of about a lakh of rupees. No further action was taken.

6.9. *Numbering of Milestones.*—Although the highway was declared as such about 10 years ago, its length, as indicated by kilometre stones and used for purposes such as indicating the location of works, starts from various interme-

diate points separately for different sections and is not in a continuous series from one end to the other.

### 7. Development of roads in Bastar district during the Fourth Plan period

7.1. *Introduction.*—With an area of 39,171 square kilometres, Bastar is the largest district of Madhya Pradesh. It is surrounded by Orissa, Andhra Pradesh and Maharashtra on three sides. It has only 1,234 kilometres of surfaced roads and 924 kilometres of unsurfaced roads.

7.2. At the commencement of the Fourth Plan, 12 roads, 439.4 kms. long, and 872 minor bridges and culverts were under construction. In the Fourth Plan, 26 new works consisting of 23 roads (aggregate length : 636.84 kms.) one major bridge and 127 minor bridges and culverts on 2 roads were taken up. The new roads taken up included five (length: 131.5 kms.) which were not included in the Fourth Plan Programme. As against a Plan allocation of Rs.197.07 lakhs (Rs.142.82 lakhs for continuing works and Rs.54.25 lakhs for new works), Rs.108.74 lakhs were actually provided in the 5 years and expenditure was Rs.111.97 lakhs. Of the incomplete works on which work was continued, only 2 roads, 38.5 kms long, and 136 minor bridges and culverts were completed. None of the new road works was completed and, as against 636.84 kilometres proposed to be added, only 20 kilometres were completed. Since the full road length was not completed on any road and cross drainage works were also to be completed, the utility of the stretches completed was limited.

7.3. *Maintenance of roads.*—The amounts allotted for maintenance of roads and the expenditure incurred in these five years were :—

Year (1)	Allotment (2)	Expenditure (3)
	<i>(In lakhs of rupees)</i>	
1969-70	18.61	20.65
1970-71	22.45	22.70
1971-72	22.05	22.63
1972-73	20.20	20.43
1973-74	25.19	23.38

7.4. *Programme in Dantewara and Konta.*—In February 1972, the Government of India sanctioned two special projects, one for Dantewara Tehsil and the other for Konta Tehsil, as schemes for "Intensive Development of Tribal areas". Rupees 200 lakhs were earmarked for each tehsil to be spent on the project in 5 years. These projects were to be launched in 1971-72, but since the initial *ad-hoc* grant was received in the last week of March 1972, nothing was done in that year. Now these projects are to be completed by March 1977. Out of the



total outlay of Rs.200 lakhs in each tehsil, Rs.80 lakhs were earmarked for development of communications of which Rs.50 lakhs were to be spent on 3 arterial roads of major district road standards to serve both tehsils and link important existing roads, State highways, markets and other places of importance. The remainder was to be spent on link roads which would serve as approach roads to important villages, service centres and market places. A Tribal Development Project Division of the Public Works Department was set up in 1972 exclusively for executing these works on behalf of Tribal Development Agencies through which the Government of India financed these projects; it started functioning from April 1973.

7.4.2. According to the phased programme, Rs.65.50 lakhs were to have been spent by the end of 1974-75. Till December 1974, the Agencies had deposited with the Division only Rs.45.26 lakhs towards the cost of these works of which Rs.37.67 lakhs had been utilised. As the balance available was only Rs.7.59 lakhs, the tempo of work had, it was understood, slowed down thereafter.

7.4.3. As against 189.4 kms of Class I roads and 54.5 kms of Class II roads proposed to be constructed in the two tehsils, no stretch of any road had been completed by December 1974. Consolidation at the stage of oversized metal soling or first coat of metal had been completed only on 35.8 kms. Only unconsolidated earthwork with or without collection of metals or gravel had been done on 132.8 kilometres. One bridge and 5 culverts had also been completed. As Bastar district has heavy rainfall, unprotected earthwork is liable to deterioration.

7.5. *Abandoned road works.*—During the second Five Year Plan, works on three roads, in all 312 kilometres long were started by the Public Works Department at the instance of the Tribal Welfare Department, at an estimated cost of Rs.64.59 lakhs. After Rs.20.47 lakhs had been spent during that Plan period, work was stopped as no provision was made for these roads in the Third Plan. Work on two roads was resumed in 1972 under the present Tribal Development Programme but work on the third road (Chhotedongar-Bansoor road) on which Rs.6.15 lakhs had been spent, had not been resumed (December 1975).

7.6. *Jagdulpur-Konta road.*—This road, 116 miles (184 kms) long, was categorised as a major district road in 1965, but had no permanent crossings beyond the first 26 miles and, therefore, could be used as a fair-weather road only although miles 10 to 26 were raised to Class I specifications prior to 1947 and some improvements were made on miles 27 to 73 thereafter. Two works designed to raise the entire road to Class I specifications and to provide permanent cross drainages on the entire length from the 27th mile onwards were started in the Third Plan period at a total estimated cost of Rs.52.12 lakhs. During the Third and Fourth Plans, Rs.44.95 lakhs and Rs.33.44 lakhs were spent respectively on these works and the residual work carried over to the Fifth Plan is expected

to cost Rs.49.53 lakhs. The physical progress achieved in each of these Plan periods is depicted below :—

(1)	Miles 27 to 73 (2)	Miles 74 to 116 (3)
<b>1. Total quantum of work—</b>		
(a) Work	4 major bridges 18 medium bridges 183 crossings	6 major bridges 12 medium bridges 111 crossings
(b) Estimated cost (In lakhs of rupees)	30.00	22.12
<b>2. Progress at the end of Third Plan—</b>		
(a) Work completed	4 major bridges 6 medium bridges 10 crossings	3 major bridges 2 medium bridges 17 crossings
(b) Expenditure (In lakhs of rupees)	34.35	10.60
<b>3. During Fourth Plan—</b>		
(a) Work completed	12 medium bridges 14 crossings	3 major bridges 9 medium bridges 7 crossings
(b) Expenditure (In lakhs of rupees)	17.21	16.23
<b>4. Work left over—</b>		
(a) Work remaining	159 crossings	1 medium bridge 87 crossings
(b) Requirements of funds (In lakhs of rupees)	21.10	28.43

7.7. *Kondagaon-Narayanpur road.*—This was originally a class II road without permanent cross drainage works. As it linked National Highway 43 with State Highway 6 and the Dilli Rajhara iron ore mines and shortened the distance from Kondagaon to Durg, it was declared a major district road in 1965. Improvement work was started and carriageway widened from 8 feet to 12 feet. Two major bridges, 10 medium bridges and 6 culverts were also constructed by March 1969 at a cost of Rs. 9.79 lakhs, leaving only 2 medium bridges and 53 culverts to be constructed. Eleven culverts were constructed in the Fourth Plan period at a cost of Rs. 3.26 lakhs and two in the Fifth Plan period at a cost of Rs. 1.16 lakhs. Two medium bridges and 40 culverts have yet to be constructed for the road to achieve its full utility (June 1975).

#### 8. Development of roads in Vidisha district during the Fourth Plan period

8.1. *Introduction.*—Vidisha has an area of 7,433 square kilometres with a population of 6.58 lakhs. There are 1,510 villages in this district, of which only

205 are connected by *pucca* roads. About 90 per cent of roads are on heavy black cotton soil.

8.2. At the beginning of the Fourth Plan, the district had a road length of 487.21 kilometres. Work on 10 roads (215.1 kms.) and 5 bridges (Annexure VIII) was in progress at the beginning of the Fourth Plan. Of these, nine works had been already under execution for 5 to 9 years. According to the Fourth Plan Programme, the following new works were to be started in the district :—

(1)	Length (2) (In kilo- metres)	Estimated cost (3) (In lakhs of rupees)
(i) Sanchi-Udaigiri road	4.0	2.60
(ii) Remaining length of Lateri-Deori road	11.4	6.33
(iii) 7 minor bridges and culverts on Sironj-Kurwai road ..		2.00
(iv) Bridge on Piriya <i>nalla</i> on Vidisha-Sanchi road ..		2.00
(v) Bridge over Kethan river on Vidisha-Ashok-nagar road ..		0.90
(vi) Bridge over Jarod <i>nalla</i> on Basoda-Sironj road ..		1.25
Total	15.4	15.08

Of these, only the two last mentioned works were actually taken up and the other four were not taken up although formal orders of Government for not doing so were available only for the first work. On the other hand, ten new works estimated to cost Rs. 51.40 lakhs, as detailed in Annexure IX, which were not contemplated in the Plan were taken up.

8.3. Of 15 works in progress from earlier years, only three small works (two medium bridges and 6.4 kms of road) were completed, leaving the remaining 12 works incomplete, although six were programmed for completion during the Fourth Plan. Besides these, the Department was reported to have completed a total length of 52.5 kms on other roads, work on which spilled over from the Third Plan. All these roads are still incomplete and stretches together with many cross drainage works on them are yet to be completed. The completed portions have not yet been opened for traffic.

8.4. During the Plan period, Rs. 57.00 lakhs were spent on roads. Out of this amount, Rs. 49.45 lakhs were spent on the seven incomplete roads mentioned in Annexure X in addition to Rs. 28.06 lakhs spent on them before the beginning of the Fourth Plan. On the basis of the standard cost per mile fixed by the Engineer-in-Chief in February 1970, suitably adjusted as explained in the Annexure, it appears that 140 kilometres of road could have been completed in all respects except for culverts and bridges with the sum of Rs. 77.51 lakhs laid out on these seven roads; actually, only 54.1 kilometres had been so completed and

work was in progress on 76.2 kms more. As the register of works and road metal returns of the Division were not maintained properly, it was not possible to identify items of work wherein the excess expenditure was incurred. The Department had not analysed the reasons for the excess in expenditure (February 1975).

8.5. Some of the works left incomplete at the end of the Fourth Plan had been under execution for 10 to 14 years and, according to present anticipation, their completion would take another 2 to 5 years. The slow progress of works in general was attributed by the Executive Engineer to difficulties in land acquisition in a fertile cultivated area, paucity of funds, the need to revise estimates frequently due to high cost of road building on heavy black cotton soil and the consequent delay as revised administrative approval was necessary. These reasons may be considered in the light of the following :—

(i) On most works, delay was found to have occurred in stages of construction subsequent to earthwork, that is after land had been acquired. For example, on 7 old roads on which work had been in progress for many years, 89.4 kms and 109.6 kms of earthwork had been completed by March 1933 and March 1969 respectively while thereafter, till March 1974, consolidation of the second layer of metal had been completed only on 5.2 kms and 12.4 kms respectively.

(ii) There was no shortage of funds during the Fourth Plan period. The funds allotted for Plan works as well as those paid for from the Central Road Fund were equal to or in excess of what the Division demanded in all years except 1933-70 in which there was a nominal deficiency of Rs. 1,000 only. The actual expenditure incurred by the Division exceeded these allotments only in the last two years of the Plan.

(iii) Since the nature of the soil of the district was known, it was not clear why it became necessary to revise estimates on this account. When the need did arise for revision, much time was taken in submitting proposals for revised administrative approval as will be seen from the following examples:—

Name of work	Original administrative approval			Revised administrative approval		
	Amount	Year	Date of submission	Amount	Year	Extent of delay in submitting proposals
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(In lakhs of rupees)			(In lakhs of rupees)		
Garod-Pipaldhar road	6.90	1961	May 1970/ June 1974	11.50	awaited	13 years
Bina-Kurwai road	12.45	1930	1970	28.56	1974	10 years
Sironj-Aron road	9.81	1931	September 1970	30.11	awaited	9 years
Ghatera-Udaipur road	4.24	1933	February 1973	12.82	awaited	10 years

8.6. *Ghatera-Kurwai road*.—The Ghatera-Kurwai road (46.6 kms) via Udaipur and Bamora was declared a major district road by the Government in 1968 as it offered a shorter route between Basoda and Kurwai, both tehsil headquarters of Vidisha district, besides connecting Kurwai tehsil and State Highways 14 and 19 with the Basoda-Teonda road which ultimately goes to Sagar after joining State Highway 18. The route also connected Udaipur, a tourist spot, with the Basoda-Teonda road. The route consisted of three sections, Ghatera-Udaipur (14.4 kms), Udaipur-Bamora (23.6 kms) and Bamora-Kurwai (8.6 kms). Of these, the Bamora-Kurwai section was already a *pucca* road although it had light submersible crossings which sometimes blocked traffic. Construction of the Udaipur-Bamora section at a cost of Rs. 5.52 lakhs was approved in 1959-60 and work commenced in 1960. Construction of the Ghatera-Udaipur section at a cost of Rs. 4.24 lakhs was approved in 1963-64 and work commenced in 1965. The costs were revised subsequently as Rs. 13.03 lakhs and Rs. 13.25 lakhs respectively and revised administrative approval for the former was obtained in 1970. Revised administrative approval and technical sanction are awaited for the Ghatera-Udaipur section although Rs. 4.20 lakhs had been spent on it till March 1974.

8.6.2. No portion of either section had been fully completed till the beginning of the Fourth Plan. During the Fourth Plan period, work on these sections continued and, in addition, construction of medium bridges was undertaken on two of the eight submersible crossings (on the Gangola *nalla* and the Pilakhar *nalla*) on the Bamora-Kurwai section. Work on both sections was in progress (February 1975). Earlier scheduled to be completed by the end of 1974-75, these sections are now expected to be completed by March 1978 and March 1977 respectively.

The delay in constructing bridges and culverts on the two road sections was particularly noticeable. The administrative approval for the Ghatera-Udaipur and Udaipur-Bamora sections was obtained in 1963 and 1959 respectively, but detailed survey for bridges and culverts was still going on in 1967. The work of designing was also delayed in some cases. Designs of 5 cross-drainages on the Ghatera-Udaipur section had not been approved (February 1975). Delay was also noticed in starting the construction of some culverts the designs of which had been approved, delay in some cases being as much as 2 to 5 years.

8.7. *Central Road Fund works*.—At the commencement of the Fourth Plan period, the following works financed from the Central Road Fund were under construction:—

(1)	Amount of administrative approval (2) (In lakhs of rupees)
(i) Bina-Kurwai road including a major bridge on Bina river (12 kms)	28.56
(ii) Sironj-Aron road (30.7 kms)	9.81
(iii) Mulhargarh-Bhouransa road (fair-weather: 20.8 kms)	0.65

All three are very old works which were approved by the Government of India more than a decade ago.

8.7.2. *Bina-Kurwai road*.—Construction of this road was first envisaged prior to the formation of the reorganised State. The road was considered necessary for law and order as also to link Kurwai with Bina. The project was approved by the Government of India in 1960 for an outlay of Rs. 12.45 lakhs of which one half was to be met from the ordinary reserve held by the Government of India and the other half from the State's share of subventions from the Fund. Technical sanction for the road portion was accorded in December 1961 for Rs. 2.09 lakhs. The technical sanction for the bridge portion was accorded nearly ten years later in May 1971 for Rs. 17.76 lakhs. Revised administrative approval for Rs. 23.56 lakhs was accorded in January 1974. The expenditure was now to be allocated as follows:—

Central Road Fund-Share of Madhya Pradesh	Rs. 16.90 lakhs
State Plan Budget	Rs. 11.66 lakhs

Till December 1974, Rs. 23.46 lakhs had been spent on the work and the whole expenditure stands debited to the Central Road Fund. The probable total expenditure on the work is now estimated to be Rs. 35.77 lakhs with the probable date of completion as June 1976. Action to obtain fresh administrative approval and technical sanction to the revised estimate had not been taken (December 1975).

8.7.3. *Sironj-Aron road*.—Construction of this road was approved in February 1961 at a cost of Rs. 9.81 lakhs. This road connects Vidisha to Guna, both district headquarters. It will also connect Vidisha with National Highway No. 3 from Agra to Bombay. Out of its sanctioned cost of Rs. 9.81 lakhs, one half has to be met from the Central Road Fund (Ordinary reserve) and the other half from the State's share of subventions from the Fund. The technical sanction for the road portion was accorded for Rs. 5.06 lakhs but technical sanction to the estimates for the bridges and culverts had not been given (December 1975). According to the latest estimate, the cost of the work would go up to Rs. 30.11 lakhs (Rs. 9.69 lakhs for the road portion and Rs. 20.42 lakhs for bridges and culverts). The revised administrative approval had, however, not been obtained. The expenditure till December 1974 had already reached Rs. 28.42 lakhs.

8.7.4. *Malhargarh-Bhouransa road*.—Construction of the road, 20.8 kms long, from Bhouransa (near Kurwai) to Malhargarh is expected to ease the acute capacity problem in that area. The road was also to connect two important roads, the Mungaoli-Malhargarh road and the Kurwai-Sironj road and provide easy access to cultivators in this interior area to Kurwai and Mungaoli which are important grain markets. The proposed road was to be only a fair-weather

road. The Government accorded administrative approval for Rs. 0.65 lakh in May 1964 and a technical sanction was accorded for Rs. 0.72 lakh in September 1967. The estimated cost has gone up to Rs. 2.60 lakhs, but revised administrative approval and technical sanction were still to be accorded. The road was incomplete and expenditure was Rs. 1.39 lakhs (September 1975).

8.8. Twentyone roads, 52.56 kms long and costing Rs. 19 lakhs, were constructed in the district as part of the Crash Scheme for Rural Employment during 1973-74. By the end of the year, Rs. 9.60 lakhs were spent on these works, but only 1.2 kilometres were completed. Most of the money had been spent on the earlier stages of road construction as would be clear from the following :—

	Road Length
Earthwork	43.84 kms
Oversized metal collection	18.79 kms
Morum collection	33.46 kms
40 MM metal collection	17.55 kms
Morum spreading	23.31 kms
Oversized metal consolidation	3.20 kms
40 MM metal consolidation	1.20 kms

As the Scheme was discontinued in 1974-75, all work on these roads was suspended with the result that the money already spent is also blocked without any utility. Earthwork done and morum collected were lying exposed to deterioration and pilferage (December 1975).

8.9. *Maintenance.*—There are about 490 kilometres of roads in the district which are maintained by the Public Works Department. The road scheme allowance for their maintenance was calculated as Rs. 20 lakhs per annum which comes to a little more than Rs. 4,000 per kilometre per year. It had not been approved (December 1975). The funds actually provided at *ad-hoc* rates and expenditure incurred were :—

Year	Allotment	Expenditure
(1)	(2)	(3)
(In lakhs of rupees)		
1969-70	9.75	10.22
1970-71	9.15	9.97
1971-72	7.00	9.87
1972-73	10.00	10.74
1973-74	12.00	15.21

8.9.2. The allotment for maintenance is to cover ordinary items of repairs and also renewal of road crust once in five years or so. Of 29 roads in the district, information regarding renewal was available for 21 roads (373.82 kms); during a period of 11 years from 1964-65 to 1974-75, the crust of only 356.2 kilometres had been renewed as against 747.6 kilometres due for renewal. It would be

expected that during these 11 years, every stretch should have been renewed at least twice. On certain stretches the road crust had not been renewed at all during these eleven years.

8.10. *Asphalting of water-bound macadam roads.*—The Government had launched a ten-year programme for providing black topping on water-bound macadam roads. Expenditure and physical progress on this scheme in Vidisha district from 1969-70 to 1974-75 were :—

Year (1)	Road length black topped (2) <i>(In kilometres)</i>	Expenditure incurred (3) <i>(In lakhs of rupees)</i>	Cost per kilometre (4)
1969-70	12.4	2.20	0.18
1970-71	13.2	2.63	0.20
1971-72	11.4	2.25	0.20
1972-73	13.8	2.48	0.19
1973-74	12.2	5.52	0.45
1974-75 (upto December 1974)	6.0	4.09	0.68

There was a marked increase in costs in 1973-74 and 1974-75 which was attributed to an increase in wages and costs of material.

#### 9. Other cases of losses, financial irregularities, etc.

9.1. *Award of work.*—The rules require that when a work is awarded on contract, tenders should be invited and the financial status of the tenderers, their capacity and the work executed by them in the past should be kept in view in deciding on the award of work. In view of this, only registered contractors and firms of repute are normally allowed to submit tenders. Contracts for construction of four major bridges estimated to cost Rs. 67.72 lakhs were awarded in the years 1935-1933 to a firm apparently without keeping in view its financial status, previous experience in building bridges and reputation. According to information furnished by the Department, the firm was not registered as a contractor with the State Public Works Department or as a firm or society with the Registrar of Firms and Societies. The partnership deed itself was executed after three of the four works had been awarded to the firm and the deed did not mention the capital of the firm. The Income Tax clearance certificate submitted by the firm showed that it had an income of Rs. 7,638 only in 1966-67 and paid no tax on it. It had other contracts worth Rs. 76,380 only in hand and all of them were for buildings. It did not claim to have any experience in building bridges. It had no qualified engineers on its pay rolls and had only casual consultations with an engineer in Bombay. Nevertheless, the designs submitted by the firm for all four bridges were accepted in preference to designs prepared by the unit specially set up for such work. The firm did not complete any of the



four works awarded and was reported to have abandoned all of them between January 1969 and April 1969. The department is getting these works executed, through other agencies at an extra cost of about Rs. 60.33 lakhs. Under the provisions of the contract, the extra cost was reported to be recoverable from the firm but the exact amount so recoverable is still to be precisely worked out and appropriate legal proceedings initiated. A revenue recovery certificate was known to have been got issued only for Rs. 2.99 lakhs. The firm's security deposit with the Department was Rs. 1.74 lakhs. These events also resulted in abnormal delay in the completion of these important bridges.

9.1.2. The Department had given some financial assistance of an unusual nature to the firm as noted below :—

(a) The original design of Narangi bridge provided for the construction of 7 spans of 69 feet each. After inspection of site by the Chief Engineer in April 1965, the length of the bridge was reduced with 6 spans of 69 feet each, but the amount payable to the contractor was not reduced consequently.

(b) According to the agreement for construction of the bridge over Sindh river at Mehdaghat, 4 per cent of the contracted amount (Rs. 38.75 lakhs) was payable after submission by the contractor of the detailed design of the bridge and its approval by the Chief Engineer. However, Rs. 1.55 lakhs were paid on this account before the detailed design was submitted by the contractor. The detailed drawings and designs were not accepted by the Chief Engineer till July 1969; meanwhile, the firm had abandoned the work in April 1969.

(c) In the construction of Silhati bridge in Durg district, the contractor had completed the work upto piers and abutment levels and according to the agreement Rs. 4.72 lakhs equal to 70 per cent of the contract value was payable. The contractor was, however, paid Rs. 6.10 lakhs including certain advances not contemplated in the agreement.

9.2. *Redoing of earthwork.*—Construction of Chorai-Seonda road, 13.6 kms long, in Blind district, was approved for Rs. 4.54 lakhs in May 1959. In November 1960, 0.48 lakh cubic metres of earthwork was awarded to a contractor for Rs. 0.60 lakh and was completed in March 1963. Road metal for 6 kilometres was collected through another contractor in 1967 and, for the remaining length in 1972. About 12.1 kilometres of the road has been completed so far (June 1975) and work on culverts is still in progress. As a result of delay in consolidation of boulders on the old earthwork, some earthwork had to be redone from 1966 to 1973 at a cost of a lakh of rupees.

9.2.2. Earthwork on Garod-Pipaldhar road, 22 kms long, in Vidisha district was completed in 1968-69. Because of delay in consolidating it, some earthwork got spoiled. As against the total requirement of 25.91 lakh cubic feet of earthwork originally estimated, 33.71 lakh cubic feet of earthwork became necessary, the extra cost being Rs.0.26 lakh.

9.3. *Non-utilisation of excavated earth.*—Widening of the road from Raisen to Sagar from single lane to double lane was undertaken in Raisen district in 1970-71. The carriageway of the road was widened from 12 feet to 22 feet and the formation width from 24 feet to 29 feet. When widening the road, formation trenches 5 feet wide, were excavated on both sides of the carriageway for boulder soling and 0.67 lakh cubic metres of earth so obtained, was thrown away; 0.52 lakh cubic metres of earthwork was got done separately and Rs.1.04 lakhs spent. Similarly Rs.0.68 lakh were spent on 0.32 lakh cubic metres of earthwork while widening another stretch of the same road in Bhopal district. Use of such excavated earth for the formation is prescribed in the "Government of Maharashtra Buildings and Communications Department Standard Specifications" which have been adopted by the Madhya Pradesh Government.

9.4. *Supply of steel to a contractor.*—The lump sum contract for the construction of approaches to a railway overbridge at Satna which was entered into in August 1969 provided that tested steel for reinforced cement concrete work and high tension steel for pre-stressed concrete would be procured by the contractor from the open market and that, in case mild steel was available in the departmental store and was supplied to the contractor, it would be charged for at issue rates as on the date of tender. Actually steel was procured by the Department from various sources in and after February 1970 at prices higher than the issue prices prevailing on the date of tender and supplied to the contractor at those issue prices, resulting in a loss of Rs.1.39 lakhs.

9.5. *Increase in laden weight of commercial vehicles.*—In December 1965, the Government increased the limit of registered laden weight of commercial vehicles to approximately 15,000 kilograms for plying on 14 important roads in the State. The Public Works Department was simultaneously asked to carry out tests and to report suitability of other roads for an increase in the laden weight. In July 1969, the Chief Engineer recommended an increase of laden weight to the same level on 130 more roads. Actual orders for increasing the laden weight of the commercial vehicles to 15,500 kg. on 162 roads (including old roads) were issued by the Government on the 14th September 1973. The matter was, thus, delayed for 4 years at Chief Engineer's level and 4 years at Government level.

It was estimated by the Finance Department in 1972-73 that if commercial vehicles with the increased laden weight were permitted to ply on 130 roads the Government would get Rs.25 lakhs to Rs.30 lakhs more annually as Road and Goods tax.

9.6. *Accounts of works : (i) Tools and Plant.*—In the Public Works Divisions where records were test-checked it was observed that accounts of tools and plant were in many instances not maintained properly and physical verification of balances was not conducted. Such omissions have been regularly brought to the notice of the appropriate authorities through periodical Inspection Reports.

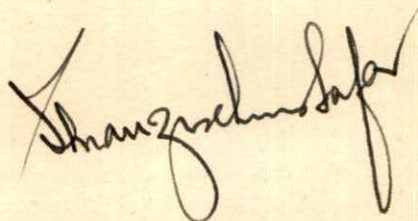
The Chief Technical Examiner, in his report for 1972-73, has mentioned that machines worth Rs.57.30 lakhs were lying idle in 27 divisions.

(ii) *Road Metal Rate Book*.—A test check of the accounts of 21 divisions showed that upto date road metal rate books were not being maintained.

(iii) *Register of works*.—A test check of the accounts of 21 divisions showed that this important basic record was either not maintained or was not maintained properly as quantity accounts and value under various sub-heads of estimates were not recorded.

(iv) *Revision of Schedules of Rates*.—Twelve circles had their own schedules of rates while six other circles had adopted the schedule of nearby circles. There was delay of 3 to 10 years in revision of the schedules.

The review was reported to the Government by Audit in May 1975; their remarks are awaited (December 1975).



(S. MANZUR-e-MUSTAFA)

Accountant General, Madhya Pradesh-I.

Gwalior:  
The 22<sup>nd</sup> Jan. 1976

Countersigned.

New Delhi:  
The

(A. BAKSI)  
Comptroller and Auditor General of India.



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ANNEXURES

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**ANNEXURE I**

*(Reference : Paragraph I—1.5, 4.3 and 9.3, pages 4,12 and 22)*

**STATEMENT SHOWING DETAILS OF WORK DONE AND EXPENDITURE INCURRED IN SEVEN SELECTED DISTRICTS  
DURING THE YEARS FROM 1969-70 TO 1973-74**

*(All amounts in lakhs of rupees)*

S.No.	Description of work/head of expenditure	Works taken up			Expenditure incurred]			Completed works			
		Number	Estimated cost	Quantum	From relief funds 1969-70 to 1973-74		Total	Number	Expenditure		
					Amount	Percent- age of total ex- penditure on relief measures			From re- lief funds 1969-70 to 1973-74	From re- lief funds prior to 1969-70 or from non-relief funds	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Roads	933	1,196.79	7,721.8 kms	4,59.75	49.3	2,16.54	6,76.29	218	1,01.63	1,01.17
2.	Irrigation works	706	8,12.45	1,38,897 acres	3,09.33	33.2	2,14.40	5,23.73	317	1,15.06	58.62
3.	(a) Construction of and Improve- ments to <i>Nistari</i> tanks	1,422	1,12.0	..	95.79	10.3	0.99	96.78	1,333	82.28	..
	(b) Temporary water storage works such as <i>nalla</i> bunding, bridge-plugging, etc.	1,754	4.16	..	4.15	0.4	..	4.15	1,754	4.15	..
	(c) Construction/deepening/ repairs of drinking water wells, supply of drinking water by tankers, etc.	933	3.42	..	4.33	0.6	..	5.33	925	5.13	..
4.	Afforestation and pasture development	21	6.94	..	8.55	0.9	..	8.55	20	7.13	..

5. Soil conservation and land improvement	13	1.21	..	0.45	0.1	..	0.45	12	0.43	..
6. Land compensation	..	..	..	14.87	1.6	..	14.87	..	..	..
7. Gratuitous relief	..	..	..	11.47	1.2	..	11.47	..	..	..
8. Contribution to rural water supply works executed by the Public Health Engineering Department	..	..	..	1.28	0.1	..	1.28	..	1.28	..
9. Urban water supply schemes—aid to Municipalities	..	3.44	..	5.23	0.6	..	5.23	..	5.23	..
10. Tools and Plant	..	..	..	7.95	0.9	..	7.95	..	..	..
11. Establishment	..	..	..	5.98	0.6	..	5.98	..	..	..
12. Miscellaneous	21	0.96	..	1.88	0.2	..	1.88	20	1.86	..
Total ..	5,803	21,41.37	7,721.8 kms. 1,38,897 acres	9,32.01	10	4,31.93	13,63.94	4,599	3,24.18	1,59.79

*Note:*—This statement includes particulars relating to works started in the former combined district of Durg before it was bifurcated in January 1973, but located in the area which formed the new district of Rajnandgaon.

ANNEXURE II

(Reference: Paragraph I-1.5,4.3 and 9.3.3, pages 4,12 and 23)

STATEMENT SHOWING DETAILS OF ABANDONED AND INCOMPLETE WORKS IN SEVEN SELECTED DISTRICTS AT THE END OF RELIEF OPERATIONS

(All amounts in lakhs of rupees)

S.No.	Description of work/head of expenditure	Total number of abandoned/incomplete works at the end of relief operations			Works abandoned/ stopped during the currency of relief operations			Works which remained incomplete at the end of relief operations			Incomplete works on which work was not continued or resumed after end of relief operations			Incomplete works on which work was continued or resumed after end of relief operations		
		Num-ber	From relief funds 1969-70 to 1973-74	From relief funds prior to 1969-70 or from non-relief funds	Num-ber	From relief funds 1969-70 to 1973-74	From relief funds prior to 1969-70 or from non-relief funds	Num-ber	From relief funds 1969-70 to 1973-74	From relief funds prior to 1969-70 or from non-relief funds	Num-ber	From relief funds 1969-70 to 1973-74	From relief funds prior to 1969-70 or from non-relief funds	Num-ber	From relief funds 1969-70 to 1973-74	From relief funds prior to 1969-70 or from non-relief funds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1.	Roads	715	358.12	115.37	39	15.50	..	676	3,42.62	1,15.37	515	2,27.01	52.93	161	1,15.61	62.44
2.	Irrigation works	339	191.27	155.73	31	2.19	0.10	358	1,92.07	1,55.63	39	9.99	1.45	319	1,82.08	1,54.23
3.	(a) Construction of and improvement to Nistari tanks	89	13.51	0.93	16	0.68	0.99	73	12.83	..	62	2.80	..	11	10.03	..
	(b) Construction/ deepening/ repairs of drinking water wells, supply of drinking water by tankers, etc.	8	0.20	..	3	0.01	..	5	0.19	..	5	0.19	..	..	..	..



4. Afforestation and pasture develop- ment	1	1.42	..	..	..	..	1	1.42	..	1	1.42	..	..	..	..
5. Soil conservation and land improve- ment	1	0.02	..	..	..	..	1	0.02	..	1	0.02	..	..	..	..
6. Miscellaneous	1	0.02	..	1	0.02	..	..	..	..	..	..	..	..	..	..
<b>Total</b>	<b>1,204</b>	<b>567.56</b>	<b>271.14</b>	<b>90</b>	<b>18.40</b>	<b>1.09</b>	<b>1,114</b>	<b>5,49.15</b>	<b>2,71.05</b>	<b>623</b>	<b>2,41.43</b>	<b>54.38</b>	<b>491</b>	<b>3,07.72</b>	<b>2,16.67</b>

## ANNEXURE III

(Reference : Paragraph I—5.2, 5.4.2 and 6.2.3, pages 14, 15 and 17)

## STATEMENT SHOWING EMPLOYMENT ON RELIEF AND PLAN WORKS FROM NOVEMBER 1972 TO SEPTEMBER 1973

Month and year	Raipur		Mandla		Khargone		Jhabua		Balaghat		Durg		Bilaspur		Employment on relief works in the State as a whole
	Labour strength		Labour strength		Labour strength		Labour strength		Labour strength		Labour strength		Labour strength		
	On relief works	On plan works	On relief works	On plan works	On relief works	On plan works	On relief works	On plan works	On relief works	On plan works	On relief works	On plan works	On relief works	On plan works	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
November 1972	..	..	..	..	..	..	Not available	..	..	..	..	..	..	..	22,098
December 1972	Not available		3,396	6,595	2,148	..	574	12,885	Not available		6,500	3,615	2,559	Not available	37,665
January 1973	6,670	3,178	2,427	7,592	2,444	3,550	2,800	43,090	2,321	16,659	17,920	22,399	8,900	Not available	76,590
February 1973	10,900	5,020	17,424	10,170	2,769	17,110	5,078	44,733	10,644	26,050	20,116	36,917	5,100	8,000	1,32,247
March 1973	17,165	12,500	29,771	12,503	4,726	20,196	11,643	47,486	12,400	27,000	25,781	42,300	5,800	32,100	1,92,192
April 1973	21,902	12,407	29,771	6,370	15,324	16,686	20,654	34,891	25,000	35,000	33,903	40,150	36,500	40,617	2,77,107
May 1973	23,904	12,407	22,000	6,800	23,370	14,875	41,036	35,471	25,000	35,000	16,174	13,821	44,530	40,617	3,57,344
June 1973	28,185	12,500	20,997	6,630	27,799	16,418	41,036	34,665	29,000	35,000	14,802	13,208	26,485	40,617	3,31,333
July 1973	28,185	12,500	21,233	3,500	27,486	10,003	38,651	14,415	25,020	31,000	13,963	11,788	26,485	40,617	2,85,207
August 1973	6,300	12,500	17,996	4,000	11,520	5,213	38,032	11,338	4,217	9,000	4,605	9,149	9,110	11,250	1,62,723
September 1973	3,818	12,500	21,616	3,600	7,912	4,835	24,451	9,622	200	5,000	3,813	4,396	9,110	11,250	1,12,886

## ANNEXURE IV

(Reference: Paragraph I—11.2.2, page 36)

## ANALYSIS OF PROGRESS UNDER DROUGHT PRONE AREAS PROGRAMME UPTO THE 31st MARCH 1974

S.No.	Sector	Targets according to Master Plan		Works within Master Plan Works outside Master Plan								
				TOTALS								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		Number of works	Estimated cost	Number of works taken up	Number of works completed	Number of works not completed	Estimated cost of the works taken up	Estimated cost of the works completed	Estimated cost of the works not completed	Actual expenditure on the works completed	Actual expenditure on the works not completed	Total expenditure
			(In lakhs of rupees)				(	In	lakhs	of	rupees	)
1. Minor Irrigation		203	690.88	155	29	126	621.55	19.76	601.79	19.46	458.69	478.15
				72	6	66	162.48	2.23	160.25	2.29	69.92	72.21
				227	35	192	784.03	21.99	762.04	21.75	528.61	550.36
2. Roads		20	152.47	20	Nil	20	152.47	Nil	152.47	Nil	70.63	70.63
				3	Nil	3	3.16	Nil	3.16	Nil		
				23	Nil	23	155.63	Nil	155.63	Nil		
3. Pasture Development		..	14.28	..	..	..	14.28	..	14.28	..	18.94	18.94
				..	..	..						
				..	..	..						
4. Ground water survey (survey and test drilling for locating ground water sources)		..	4.00	..	..	..	4.00	4.00	..	3.24	..	3.24
5. Soil Survey (contour survey and examination of physical and chemical properties of soil)		..	1.20	..	..	..	1.20	1.20	..	0.63	..	0.63
Total		223	862.83	250	35	215	959.14	27.19	931.95	25.62	618.18	643.80

## ANNEXURE V

(Reference : Paragraph II-3.2, page 44)

## ROADS AND BRIDGES UNDER CONSTRUCTION FOR A LONG PERIOD

S.No.	Name of work	Name of Division	When started	When expected to be completed	Period for completion in years
(1)	(2)	(3)	(4)	(5)	(6)
1.	Raising of Korba-Chirimiri Road.	Division I Ambikapur	1961	May 1975	14
2.	Improvement of Shiviri-Narayan road, Sarangarh.	Division II Raipur	1954	August 1975	21
3.	Raising of Umaria-Shahpur road.	Mandla	1961	March 1976	15
4.	Construction of bridge on Kanhan river on Khudaygarh-Novegaon road.	Satpura Division Chhindwara.	1955	March 1976	21
5.	Construction of Bijori-Chindi Khapa road in Chhindwara.	Do	1955	March 1976	21
6.	Construction of Bina-Kurwai road with bridges.	Vidisha	1959	March 1976	16
7.	Construction of Sironj-Aron road with bridges.	Do	1959	March 1975	16
8.	Construction of Ambikapur-Katghora road.	Division II Ambikapur	1953	March 1975	22
9.	Construction of Ambikapur-Ramanujganj road.	Do	1952	March 1974	22
10.	Raising of Jashpurnagar-Gumla road.	Raigarh	1954	March 1977	23
11.	Improvement of Deobhog road.	Division I Raipur	1955	March 1974	19
12.	Construction of Kondagaon-Narayanpur-Bhanupratapur-Rajnandgaon road (length:37 kms.).	North Bastar	1951	March 1974	23
13.	Do (length : 55 kms.).	Kanker	1951	March 1976	25
14.	Construction of Gorela-Venkat road.	Bilaspur	1956	March 1974	18
15.	Construction of IInd class road on Sewara-Dhanpur Bharichand.	Do	1956	June 1974	18

## ANNEXURE V—Contd.

S.No.	Name of work	Name of Division	When started	When expected to be completed	Period for completion in years
(1)	(2)	(3)	(4)	(5)	(6)
16.	Improvement of Ist class road on Pendra-Marwahi.	Division I Bilaspur	1956	June 1975	19
17.	Construction of Dindori-Karanjia-Damochoa road.	Division I Bilaspur	1956	March 1976	20
18.	Construction of Ist Class road on Sakti-Malkharoda Chapara with bridges.	Champa	1959	June 1976	17
19.	Construction of Bemetara-Pagdada road, Durg.	Durg	1958	March 1975	17
20.	Improvement of Pendra-Chirimiri road.	Ambikapur	1955	March 1975	20
21.	Construction of Gandai-Saletekari road.	Durg	1957	March 1974	17
22.	Construction of Danora-Murangaon road.	Do	1955	March 1976	21
23.	Improvement of Kanker-Bhanupratappur-Sambalpur road.	Kanker	1952	March 1975	23
24.	Construction of road on Lumsaria-Sohar (Madholi-Semgai)-(length:48 kms.).	Sidhi	1955	March 1974	19
25.	Construction of bridge on Chhelibada river and crossing on Kondagaon-Narayanpur-Antagarh.	North Bastar	1951	March 1975	24
26.	Construction of road on Churhut Kamarji Hawa Imalia Sinawali Vichhi (length : 8 kms.).	Sidhi	1955	March 1973	18
27.	Construction of bridge on Gopad Banas river near Nigri.	Do	1962	March 1974	12
28.	Construction of permanent road on Mehai-Tahanwali (length : 36.4 kms.).	Satna	1956	March 1974	18
29.	Construction of permanent road with bridges on Dureha-Samania road.	Do	1956	March 1976	20
30.	Construction of permanent road with bridges on Sundara to Singhpur road.	Do	1956	March 1975	19

## ANNEXURE V—Contd.

S.No.	Name of work	Name of Division	When started	When expected to be completed	Period for completion in years
(1)	(2)	(3)	(4)	(5)	(6)
31.	Construction of Amarpatan-Rampur road (length : 25.5 kms.).	Satna	1957	March 1974	17
32.	Construction of seasoned road from Amdara to Paradsmonia (Village Road (length : 32.2 kms.).	Do	1956	March 1974	18
33.	Construction of road including bridge on Banpatha-Amarpur-Barhi.	Shahdol	1950	March 1975	25
34.	Construction of bridges on Budhar to Girwa and Khodir to Mohni.	Do	1950	March 1975	25
35.	Construction of bridges on Tala Manpur-Beohari.	Do	1952	March 1975	23
36.	Construction of bridges on Anuppur-Venkatnagar-Jaithari.	Do	1956	March 1977	21
37.	Construction of bridges on Umaria-Chandiya.	Do	1950	March 1973	23
38.	Construction of bridges on Budhar-Hardi.	Do	1960	March 1975	15
39.	Construction of bridges on Anuppur-Jaitpur.	Do	1950	March 1977	27
40.	Construction of permanent road Narkungarhi.	Rewa	1955	March 1974	19
41.	Construction of road including bridges on Chandla-Sawai-Garihar-Motodh (length : 28 miles).	Nowgong	1957	March 1973	16
42.	Construction of road including bridges on Bakaswaha-Dalpatpur.	Do	1957	March 1974	17
43.	Construction of road including bridges on Dargawa-Bajna.	Do	1957	March 1974	17
44.	Construction of Seasoned road on Nowgong-Baldeo-garh via Isanagar (length : 21 miles).	Do	1957	March 1974	17

## ANNEXURE V—Contd.

S.No.	Name of work	Name of Division	When started	When expected to be completed	Period for completion in years
(1)	(2)	(3)	(4)	(5)	(6)
45.	Construction of permanent road on Bijawar-Kishan-garh <i>via</i> Jaishanker.	Nowgong	1958	March 1974	16
46.	Construction of road including bridge on Jatera-Sindhora Jewara.	Do	1956	March 1974	18
47.	Construction of road including bridge on Baldeogarh-Patera-Khargapur.	Do	1956	March 1975	19
48.	Construction of road including bridge on Chuara-Badgaon.	Do	1956	March 1974	18
49.	Construction of road including bridge on Garauli-Jantara <i>via</i> Palera-Hora.	Do	1957	March 1974	17
50.	Construction of road and bridge on Semiria-Mohendra-Raipur.	Panna	1957	March 1977	20
51.	Construction of roads in Dacoity area in Sagar district (3 roads).	Division I Sagar	1955	March 1975	20
52.	Construction of Badabare Road including bridges.	Division II Sagar	1955	March 1974	19
53.	Construction of road and bridges on Tajgarhpura road.	Damoh	1952	March 1974	22
54.	Improvement of Hatvans-Kareli road on Hoshangabad-Narsinghpur.	Narsinghpur	1947	March 1977	30
55.	Improvement of roads and bridges in Narsinghpur-Shahpur.	Do.	1955	March 1975	20
56.	Improvement of roads and bridges on Sodalpur-Dekna road.	Hoshangabad	1956	June 1974	18
57.	Construction of Chhindi-Khapa-Harrai road.	Satpura Division, Chhindwara	1959	March 1978	19
58.	Construction of Baktare-Dowi road.	Sehore	1955	June 1974	19

ANNEXURE V—*Concl.*

S.No.	Name of work	Name of Division	When started	When expected to be completed	Period for completion in years
(1)	(2)	(3)	(4)	(5)	(6)
59.	Construction of Shahganj road.	Sehore	1955	June 1974	19
60.	Shahganj-Budhni road.	Do	1956	March 1976	20
61.	Construction of permanent road on Sironj-Bersai upto limit of district.	Vidisha	1959	March 1975	16
62.	Construction of permanent road on Akodia-Sundersi.	Shajapur	1959	March 1976	17
63.	Construction of Malhargarh-Giran-Chitakheda road (Public participation).	Mandsaur	1962	March 1975	13
64.	Construction of Morar-Chittor road (Part I).	Gwalior	1961	March 1974	13



## ANNEXURE VI

(Reference : Paragraph II-6.4 (i), page 55)

STATEMENT SHOWING EXCESS EXPENDITURE INCURRED ON CONSTRUCTION OF ROAD  
PORTION OF THANDLA-HARNAGAR-BALWASA SECTION (29 KMS.) EXCLUD-  
ING CROSS DRAINAGE WORKS

	<i>(In lakhs of rupees)</i>
1. Cost of construction of 29 kms. at Rs.26,000* per km. as per rate calculated by Engineer-in-Chief in February 1970 for soils other than black cotton.	7.54
<i>Add</i>	
(a) 1/3rd due to metal width 13' instead of 10' for 20 kms.	1.73
(b) 1/5th due to metal width 12' instead of 10' for 7 kms.	0.36
(c) On account of increased width for formation (earthwork 24' to 32') for 20 kms.	0.25
(d) 30 per cent on account of higher tender percentage on metal collection.	0.95
Total	10.83
2. Actual expenditure	12.29
3. Excess	1.46

*Note.*—No consideration has been taken for the incomplete portion of road on account of 53 cross drainages and one major bridge. The excess may then go up further.

\*Equivalent of Rs. 42,000 per mile as computed by the Engineer-in-Chief.

## ANNEXURE VII

(Reference : Paragraph II-6.4 (ii), page 55)

STATEMENT SHOWING EXCESS EXPENDITURE INCURRED ON CONSTRUCTION OF  
BHOPAL-DIWANGANJ SECTION

Item	Estimated cost as per standard scales	Actual expendi- ture	Excess
(1)	(2)	(3)	(4)
<i>(In lakhs of rupees)</i>			
1. Earthwork	1.75	3.18	1.43
2. Collection of metal	3.95	4.86	0.91
3. Consolidation	1.68	2.16	0.48
4. Miscellaneous	0.06	0.18	0.12
5. Arboriculture	..	0.25	0.25
6. Land acquisition	0.42	0.44	0.02
7. Survey	0.07	0.19	0.12
8. Maintenance	..	0.10	0.10
9. Work-charged establishment and contingencies.	0.53	0.51	(—)0.02
Total	8.46	11.87	3.41

## ANNEXURE VIII

(Reference : Paragraph II-8.2, page 61)

STATEMENT SHOWING CONTINUING WORKS OF FOURTH PLAN IN VIDISHA  
DISTRICT

S.No.	Name of work	Length	Probable total cost	When started	Target for completion	Expenditure incurred upto	
						March 1969	March 1974
(1)	(2)	(3) (In kilometres)	(4) (In lakhs of rupees)	(5)	(6)	(7) (In lakhs of rupees)	(8)
1.	Sironj-Aron Road	30.7	30.11	1960-61	March 1977	7.42	21.69
2.	Bina-Kurwai Road including 1 major bridge.	12.0	35.77	1960-61	May 1976	4.91	21.84
3.	Vidisha-Ahmadpur Road	20.4	16.52	1962-63	March 1978	2.58	12.47
4.	Sironj-Maksudangarh Road	14.4	14.07	1963-64	March 1976	4.02	9.58
5.	Garod-Pipaldhar Road	22.0	12.87	1961-62	June 1977	5.17	10.79
6.	Udaipur-Bamora Road	23.6	15.00	1961-62	March 1977	4.67	13.34
7.	Ghatera-Udaipur Road	14.4	13.25	1965-66	March 1978	0.94	4.20
8.	Sironj-Bersai Road	50.4	9.92	1962-63	March 1979	3.26	5.44
9.	Bhorasa-Malhargarh Road	20.8	2.62	1964-65	March 1977	0.21	1.34
10.	Neman bridge	..	11.46	1972-73	June 1976	0.09	9.48
11.	Kararia bridge	..	3.75	May 1970	March 1975	0.05	3.91
12.	Bah bridge	..	7.78	October 1970	March 1975	0.03	4.29
13.	Sindh bridge	..	1.83	October 1970	March 1972	0.01	1.83
14.	Gangola Nalla bridge	..	1.05	1969-70	1971-72	0.30	1.05
15.	Gareth-Udaipur Road	6.4	1.47	Not available	Completed in Fourth Plan period	0.05	1.47
Total		215.1	177.47			33.71	122.72

## ANNEXURE IX

(Reference : Paragraph II-8.2, page 61)

LIST OF THE NEW WORKS NOT INCLUDED IN THE FOURTH PLAN BUT TAKEN UP  
FOR EXECUTION DURING THE PLAN PERIOD IN VIDISHA DISTRICT

S.No.	Name of work	Length	Probable cost	Expenditure
(1)	(2)	(3)	(4)	(5)
		(In kilo- metres)	(In lakhs of rupees)	
1.	Shamshabad-Lateri Road	36.6	11.81	0.80
2.	Sultania-Pipalkheda-Salaiya Road	12.8	6.16	2.47
3.	Vidisha-Gulabganj Road	13.8	8.74	2.62
4.	Bodh-Pathari approach	2.8	1.38	0.16
5.	Himmatpur-Hydargarh Road	10.8	8.52	0.90
6.	Khamkheda-Sayar-Bamora Road	9.8	0.90	0.01
				(work with- held under Govern- ment's orders)
7.	Raising <i>rakta</i> on Vidisha-Ashoknagar Road.	..	..	0.01
				(work post- poned by the Govern- ment)
8.	Barri Ghat bridge	..	5.32	0.01
9.	Bridge on Pitakhar Nalla	..	1.08	0.10
10.	Sagar bridge	..	7.49	0.04
	Total	86.6	51.40	7.12

## ANNEXURE X

(Reference : Paragraph II-8.4, page 61 )

## STATEMENT SHOWING PROGRESS OF EXPENDITURE AND PHYSICAL PROGRESS IN RESPECT OF SEVEN OLD ROADS

S.No.	Name of road	Total length	Expenditure upto 1968-69	Expenditure during the Fourth Plan	Total expenditure	Length completed	Cross drainage works completed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		(In kilometres)	(In lakhs of rupees)			(In kilometres)	
1.	Sironj-Aron	30.7	7.42	14.27	21.69	11.2	30
2.	Garod-Pipaldhar	22.0	5.17	5.62	10.79	14.6	27
3.	Vidisha-Ahmadpur	20.4	2.58	9.89	12.47	8.0	20
4.	Sironj-Berasia (pucca portion)	4.8	3.26	2.18	5.44	4.4	2
5.	Sironj-Maksoodangarh	14.4	4.02	5.56	9.58	10.7	8
6.	Udaipur-Bamora	23.6	4.67	8.67	13.34	5.2	29
7.	Ghatera-Udaipur	14.4	0.94	3.26	4.20	..	19
	Total	130.3	28.06	49.45	77.51	54.1	135

Standard cost of construction of roads without culverts and bridges as per the Chief Engineer's circular dated 2nd February 1970. Rs. 50,000 per mile

Cost per kilometre

Rs. 31,250

Add maximum higher percentage above C.S.R. accepted for the works in the division as calculated from the Register of tenders-30 per cent

Rs. 9,375

Total

Rs. 40,625

Rounded off as

Rs. 41,000

Actual expenditure on the seven roads referred to above.

Rs. 77.51 lakhs

Less Cost of 135 culverts at an average rate of Rs. 0.15 lakh per culvert as worked out on the basis of actual expenditure in the case of the road at item (2) above

Rs. 20.25 lakhs

Expenditure on road portion above

Rs. 57.26 lakhs

Road length which could have been completed with this outlay at the rate of Rs. 0.41 lakh per km. as worked out above.

140 kilometres

