



Administration Report of the Public Works Department in the State of Bombay for the period covering the years from 1945-46 to 1950-51

Part I

A Detailed Review of the Civil and Military Works

(For Appendices, Graphs, Schedules, etc., referred to in this Part, please see Part II of this Report)

BOMBAY

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1953

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PUBLIC WORKS DEPARTMENT

PROVINCE OF BOMBAY

ADMINISTRATION REPORT WITH A REVIEW OF CIVIL WORKS FOR THE PERIOD OF SIX YEARS, VIZ., 1945-46 TO 1950-51.

I—DIRECTION

During the period under review, the following officers held the posts shown against them :—

- Mr. W. H. E. Garrod, C.I.E., Chief Engineer and Secretary to Government
M.Inst.C.E., M.R.San.I., (Roads and Buildings) up to the 8th April
M.I.E. (Ind.), I.S.E. 1945 and again from the 4th September
1945 to the 31st March 1947.
- Mr. R. H. Hammett, C.I.E., Chief Engineer and Secretary to Government
M.Inst.C.E., I.S.E. (Irrigation) up to the 3rd September 1945
and again from the 15th January 1946
to the 30th September 1947.
- Shri G. G. Kale, C.I.E., B.A., Chief Engineer and Secretary to Government
B.Sc., B.E., I.S.E. (Roads and Buildings) from the 9th April
1945 to the 3rd September 1945. Chief
Engineer and Secretary to Government
(Irrigation) from the 4th September 1945
to the 14th January 1946.
- Shri B. S. Vyas, B.E., Chief Engineer and Secretary to Government
M.I.E.(Ind.), I.S.E. (Roads and Buildings) from the 1st April
1947 to the 18th October 1949.
- Shri G. V. Bedekar, B.Sc. (Bom. Secretary to Government from the 19th October
and Lond.), I.C.S. 1949.
- Shri N. P. Gurjar, B.E., I.S.E., Chief Engineer and Secretary to Government
J.P. (Irrigation) from the 1st October 1947,
up to the 18th October 1949. Chief Engineer
to Government from the 19th October
1949 to the 12th April 1950. Additional
Chief Engineer to Government from the 13th
April 1950 to the 12th August 1950.
- Shri M. L. Champhekar, M.C.E., Chief Engineer to Government from the 12th
M.I.E.(Ind.), I.S.E. April 1950.
- Shri G. N. Pandit, B.Sc. (Bom.), Deputy Secretary to Government (Irrigation
B.Sc.(Eng.) (Lond.), I.S.E. and Railways) up to the 1st October 1945
and again from the 2nd December 1945 to
the 5th June 1947.

- Mr. A. R. Thomas, B.Sc. (Eng.), I.S.E. Deputy Secretary to Government (Irrigation and Railways) from the 2nd October 1945 to the 1st December 1945.
- Shri D. B. Anand, M.I.E., I.S.E. Deputy Secretary to Government (Roads and Buildings) up to the 29th April 1946 and again from the 14th May 1946 to the 16th November 1947.
- Shri D. A. Gadkari, B.E., A.M. Inst.C.E. (Lond.), A.M.I.E. (Ind.), B.S.E. (I). Deputy Secretary to Government (Roads and Buildings) from the 22nd October 1947 to the 15th November 1947 and (Irrigation and Railways) from the 16th November 1947 up to the 29th May 1948.
- Shri A. G. Maydeo, B.E., A.M.I.E. (Ind.), B.S.E. (I). Deputy Secretary to Government (Irrigation) from the 29th May 1948 to the 16th January 1949.
- Shri K. V. Joglekar, B.E., B.S.E. (I). Deputy Secretary to Government (Irrigation) from the 16th January 1949.
- Shri K. M. Kantawala, B.E., A.M.I.E. (Ind.), M.Inst.H.E. (Lond.), Assoc.M.A.S.C.E., B.S.E. (I). Deputy Secretary to Government (Roads and Buildings) from the 16th November 1947 up to the 22nd June 1949.
- Shri N. C. Patel, B.E., A.M.I.E. (Ind.), B.S.E. (I). Deputy Secretary to Government (Roads and Buildings) from the 22nd June 1949 to the 1st February 1950.
- Shri B. K. Choksi, B.E., B.S.E. (I). Deputy Secretary to Government (Roads and Buildings) from the 1st February 1950.
- Rao Bahadur K. D. Kotwal, B.E. Under Secretary to Government (Temporary) up to the 14th June 1950.

II—TERRITIOAL CHANGES

The period under review witnessed a major re-organization in the Public Works Department. Several factors such as Post-War Reconstruction Programme, advent of the popular Ministry and the merger of States were responsible for the great expansion of this Department. The important developments are noted hereunder.

With a view to directing and co-ordinating the post-war activities of Government in the whole province in respect of Post-War Reconstruction Schemes for (1) Communications, (2) Buildings, and (3) Major Irrigation Schemes, the office of the Chief Engineer, Post-War Reconstruction, Poona, was opened in January 1946 and a new Circle, viz., the Project Circle, which was already created in March 1944, was placed directly under its control. This organization was mainly engaged on investigation, surveys and preparation of plans and estimates for all the Post-War Reconstruction Schemes. The office of the Chief Engineer, Post-War Reconstruction, was, however, closed and the post was abolished since 17th October 1947. The Project Circle was also abolished at that time.

The Public Health Branch was reorganized during the year 1945-46 and the post of Consulting Public Health Engineer to Government was designated as Public Health Engineer to Government with a status corresponding to that of a Superintending Engineer in the Public Works Department.

The status of the Architectural Adviser to Government, who was erstwhile a part-time officer attached to the Secretariat, was also raised to that of a Superintending Engineer and he was given a separate office in the year 1947-48.

The changed political conditions were most evident during the years 1948-49 and 1949-50, when merger and integration of the States was complete, which necessitated complete reorganization of the executive charges. Thus the number of Circles and Divisional charges during the year 1949-50 were the maximum. The main features of the reorganization included—

(1) Bifurcation in 1947-48 of the Northern Circle into the Bombay Circle and Northern Circle, Ahmedabad. In the subsequent year, the Northern Circle, Ahmedabad, was further bifurcated into the North Gujarat and the South Gujarat Circles.

(2) Creation of new Circle charges, viz., Village Water Supply and Village Schools, Koyna Irrigation and Gujarat Irrigation Circles.

(3) Reorganization of the Public Health Circle with an addition of three new Divisions, viz., Karnatak Public Health Works Division, Public Health Works Division (North Gujarat) and Southern Public Health Works Division.

(4) Opening of new Divisions under the existing and new Circles opened during the period.

(5) Addition of a new Division, viz., Southern Electrical Division under the Electrical Engineer to Government.

The other important feature of the year 1949-50 was the implementation of the Administrative Inquiry Committee's recommendation, according to which, the two posts of the Chief Engineer and Secretary to Government were replaced by a post of the Secretary to Government and that of a Chief Engineer to Government. The former post has been earmarked for an I.C.S. officer and the latter for an officer of the I.S.E. A post of Special Officer was also created to deal with the matters concerning Minor Ports. Number of Circles, Divisions and Sub-Divisions, were maximum during this year.

The year 1950-51, however witnessed a gradual relapse in the activities of this Department. The adverse financial conditions compelled Government to postpone or slow down some of the schemes, in addition to effect the measures of retrenchment. The post of a Personal Assistant to the Chief Engineer to Government (Roads and Buildings) and that of a Special Officer (Minor Ports) were abolished. The Circle and Divisional charges abolished were

(i) The Eastern Circle and Village Water Supply and Village Schools Circle,

(ii) The Miraj, Ahmedabad (Roads and Buildings), Baroda City and Development, and Baroda Irrigation Divisions.

This necessitated readjustment of the charges. Nomenclature of some of the Divisional charges were also changed.

The position as regards the Circle and Divisional charges in the Department during the six years under review is summarised as below :—

Years.	Number of Circles.	Number of Divisional Charges.
1945-46 } 1946-47 }	... 5 (excluding the Public Health and Electrical Circles).	27 (excluding 2 Divisions under the Public Health Engineer and 1 Electrical Division).
1947-48	... 7 (excluding the Public Health and Electrical Circles).	29 (excluding 3 Divisions under the Public Health Engineer and 1 Electrical Division).
1948-49	... 9 (excluding the Public Health and Electrical Circles).	38 (excluding 4 Divisions under the Public Health Engineer and 2 Electrical Divisions).
1949-50	... 11 (excluding the Public Health and Electrical Circles).	45 (excluding 6 Divisions under the Public Health Engineer and 2 Electrical Divisions).
1950-51	... 9 (excluding the Public Health and Electrical Circles).	42 (excluding 6 Divisions under the Public Health Engineer and 3 Electrical Divisions).

III—DETAILED REVIEW OF WORKS, BUILDINGS, ETC.

1. CENTRAL

(a) *Archaeological Works.*—The administrative control of all the Central Works in the Province, except those in respect of Archaeological Works, Trigonometrical Stations and the Primary Protected Bench Marks was transferred to the Central Works Department with effect from the 1st April 1940. The Archaeological works in Ahmedabad Division were transferred to the Archaeological Superintendent, Western Circle, Poona, on the 1st September 1945 and the works in the other Divisions in the Northern Circle, as also twenty-seven archaeological works located at Mahalung and Velapur in the Ahmednagar and Nira Canals Divisions, respectively, were transferred to the Archaeological Department with effect from the 1st April 1946. Archaeological monuments in the Bijapur District were also transferred on the 1st June 1945.

(b) *Military Works.*—The expenditure incurred on the Military works during the year 1945-46 was as under :—

					Rs.
Original Works	...	...	...	...	10,20,596
Repairs	...	...	...	...	65,410
				Total	10,86,006

The following important works were carried out during the year 1945-46 :—

- (1) A. M. E. Station, Virar.
- (2) A. M. E. Station, Mandwa.
- (3) Providing hutting accommodation for 600 B. O. Rs. at No. 2, Marine Drive, Bombay.
- (4) Providing accommodation for Air Formation Signals Detachment, Bombay.
- (5) Providing additional domestic accommodation for the Royal Air Force at No. 2, Marine Drive, Bombay.
- (6) Royal Air-Force Works, Sewri.
- (7) Construction of a diversion in miles 56/5 to 57/4 of the Bombay-Agra Road near the Railway level Crossing.
- (8) Improvements to Uran-Ranwad-Kagaon Road.
- (9) Construction of subsidiary fuelling base at Deogad, Ratnagiri Division.
- (10) Construction of a temporary refuelling base at Karwar, Kanara Division.
- (11) Improvements by way of strengthening the weak cross drainage works, etc., on the Kunta-Hubli, Yellapur-Sirsi, Sirsi-Kodkani, Yellapur-Bankapur, Khanapur-Yellapur and Supa-Londa Roads. The Bedti Bridge No. 7 in mile 7/8 of the Yellapur-Sirsi Road was completed.

An expenditure of Rs. 11,75,368 was also incurred in the Ahmedabad Division in connection with the execution of Military Works during the year 1945-46.

On account of the cessation of the war, no works were required to be carried out on behalf of the Military during the year 1946-47 and the subsequent years under report.

2. PROVINCIAL

The total expenditure incurred on the works under different heads during the six years under report, is given as under :—

<i>Land Revenue : Works.</i>			<i>Excise : Works.</i>		
Expenditure during		Rs.	Expenditure during		Rs.
1945-46	...	3,600	1945-46	...	17,050
1946-47	...	12,044	1946-47	...	15,605
1947-48	...	6,599	1947-48	...	21,821
1948-49	...	3,223	1948-49	...	20,455
1949-50	...	15,582	1949-50	...	7,641
1950-51	...	19,770	1950-51	...	44,156
Total	...	60,818	Total	...	1,26,728

*Forest : Works**Registration : Works*

Expenditure during		Rs.	Expenditure during		Rs.
1945-46	...	6 818	1945-46	...	29,456
1946-47	...	3,790	1946-47	...	434
1947-48	...	7,977	1947-48	...	2,808
1948-49	...	18,554	1948-49	...	1,267
1949-50	...	27,449	1949-50	...	3,151
1950-51	...	7,807	1950-51	...	1,617
Total	...	72,395	Total	...	38,733

*General Administration.**(i) Residences of Heads of State—*

Year.	Expenditure on		
	Works.	Repairs.	Total.
	Rs.	Rs.	Rs.
1945-46	30,727	2,27,928	2,58,655
1946-47	24,490	2,44,406	2,68,896
1947-48	98,468	2,99,909	3,98,377
1948-49	2,36,952	2,01,791	4,38,743
1949-50	2,73,179	1,85,390	4,58,569
1950-51	3,59,156	2,19,600	5,78,756
Total	10,22,972	13,79,024	24,01,996

*(ii) State Legislatures.**(iii) Secretariat and Head Quarters Establishment.**(iv) Commissioners and District Officers.*

The total expenditure on the works of the above three sub-Heads is given as under :—

Year.	Rs.
1945-46	3,30,819
1946-47	2,98,570
1947-48	7,63,124
1948-49	9,14,939
1949-50	7,70,085
1950-51	7,74,623
Total	38,52,160

Some of the important works, which were either in progress or completed during the period under review, are given below :—

(iii) Secretariat and Head Quarters Establishment.

During the year 1945-46

- (1) Constructing a temporary structure of hutment type for office on the Central lawn in the compound of the Civil Secretariat, Bombay.
- (2) Erecting temporary structures for offices on the North and South Lawns in the compound of the Civil Secretariat Building.
- (3) Erecting temporary structures in the compound of the Royal Institute of Science, Bombay, for offices.
- (4) Constructing a block of 6 rooms for the Secretariat peons in the compound of the Council Hall, Poona.

During the year 1947-48

- (5) Providing furniture for residences of Honourable Ministers and Parliamentary Secretaries at Poona.
- (6) Improvements to approach roads and provision of storm water entrances in the compound of the Civil Secretariat Building, Bombay (completed during the year 1948-49).
- (7) Purchase of the following buildings in Bombay belonging to the Military Authorities :—
 - (a) The Japanese Gymkhana (Minden Fleet Club).
 - (b) Property known as C. S. I. near Wodehouse Bridge.
 - (c) ENSA Workshops.
 - (d) Hutments on Road "E" behind the Churchgate Railway Station.
 - (e) Queen's Barracks and
 - (f) Hutments south of the Cricket Club of India.

During the year 1948-49

- (8) Additions and alterations to the Barracks Nos. 1, 4, 15 and 23 of the Queen's Barracks, Bombay.
- (9) Construction of a double storeyed block for accommodating servants, garages and godowns in the compound of the Civil Secretariat, Bombay.
- (10) Construction of semi-permanent office accommodation with 5 garages in the compound of the old Japanese Gymkhana, Bombay.
- (11) Construction of semi-permanent office accommodation for 200 clerks, with garages in the open space south of Brabourne Stadium, Block II, Back Bay Reclamation Scheme, Bombay.

The works at items (9), (10) and (11) were in progress during the year 1949-50 also.

- (12) Construction of an additional building for the Civil Secretariat, in the compound of the Royal Institute of Science, Bombay. (This work was in progress during the years 1949-50 and 1950-51 also).

During the years 1949-50 and 1950-51

(13) Providing additional lipped urinals and W. Cs. and carrying out addition and alterations in the sanitary blocks on the ground, second and third floors of the Civil Secretariat, Bombay.

(iv) Commissioners and District Officers.

During the year 1945-46

(1) Construction of a building for additional accommodation in the compound of the Collector's office at Alibag.

(2) Construction of a new Wing to the existing Mahal Kacheri building at Khalapur.

(3) Construction of the Magisterial Lock-up at Kankavli in Ratnagiri Division.

(4) Construction of a District Bungalow at Naigund in Bijapur Division. (This work was completed during the year 1947-48).

During the year 1948-49

(5) Construction of a Mamlatdar's Kacheri at Mohol, district Sholapur.

(6) Construction of a Mamlatdar's Kacheri at Shrirampur, district Ahmednagar. (This work was in progress during the years 1949-50 and 1950-51 also).

During the year 1949-50

(7) Construction of a Block of Officers flat at Pratap Ganj, Baroda.

(8) Construction of a Rest House at Kalol. (This work was in progress during the year 1950-51 as well).

(9) Construction of an Inspection Bungalow at Viramgaum. (The work was in progress during the year 1950-51 also).

During the year 1950-51

(10) Construction of a new Block for the additional staff in the Collector's Kacheri at Belgaum.

(11) Construction of Mamlatdar's quarters at Radhanagari, Kolhapur.

Administration of Justice : Works.

Year.						Expenditure. Rs.
1945-46	...	...	...	...	...	58,030
1946-47	...	...	...	...	...	83,428
1947-48	...	...	...	...	...	1,07,132
1948-49	...	...	...	...	...	1,91,137
1949-50	...	...	...	...	...	2,54,687
1950-51	...	...	...	...	...	1,53,447
						8,47,861
				Total	...	8,47,861

The important works which were either in progress or completed during the period under review were :—

During the year 1946-47

(1) Providing surface storage tank with pump house and necessary pipe line in the compound of the High Court, Bombay.

During the year 1948-49

(2) Constructing six Council Chambers over the existing garages on the side of the extension building at the High Court, Bombay.

(3) Additions and alterations to the ground floor (Appellate Side) of the High Court, Bombay. (This work was completed during the year 1949-50).

During the year 1949-50

(4) Providing toilet rooms to Honourable Judges on the second and third floors of the High Court, Bombay.

(5) Construction of a Civil Court at Bassein.

Jails and Convict Settlements : Works.

						Expenditure.
Year.						Rs.
1945-46	...	...	...	...	...	1,16,550
1946-47	...	...	...	...	...	70,367
1947-48	...	...	...	...	...	46,781
1948-49	...	...	...	...	...	79,477
1949-50	...	...	...	...	...	1,69,352
1950-51	...	...	...	...	...	2,31,499
					Total	7,14,026

Some of the important works either in progress or completed during the period under report were :—

During the year 1945-46

(1) Construction of a well 18' diameter and 60' deep in the Western Garden of the Central Prison, Belgaum. (Completed during the year 1946-47).

(2) Providing Additions and Alterations to the residential and non-residential buildings and constructing new Quarters for the staff at Visapur for Beggar's Scheme.

During the year 1947-48

(3) Providing a new roof over the terrace of the main gate in the Central Prison, Belgaum and constructing a cattle-shed therein. (Completed during the year 1947-48).

(4) Constructing mangalore tiled roofing to the Dining Hall and Kitchen of the Borstal School at Dharwar. (Completed during the year 1947-48).

(5) Construction of 20 separate cells at Visapur.

During the year 1948-49

(6) Constructing a certified School at Malsiras, district Sholapur.

During the years 1949-50 and 1950-51

(7) Construction of a New Sub-Jail in the compound of the Central Jail at Sabarmati, Ahmedabad.

<i>Police : Works</i>					Expenditure.
Year.					Rs.
1945-46	...	...	...	...	9,97,312
1946-47	...	...	...	...	2,67,378
1947-48	...	...	...	...	12,10,470
1948-49	...	...	...	...	6,36,023
1949-50	...	...	...	...	8,69,206
1950-51	...	...	...	...	5,72,944
Total ...					45,53,293

The important works either in progress or completed under this head during the period under review, were:—

During the year 1945-46

(1) Providing underground R. C. C. Storage Tank and Pump House for the Northcote Police Hospital, Bombay.

(2) Construction of Quarters for 100 Policemen at Mulund.

(3) Construction of a New Town Police Station at Hubli.

During the year 1947-48

(4) Purchase of Staging Camp, together with all structures thereon, at Dhulia.

During the year 1948-49

(5) Construction of a Shed for Motor lorries in the compound of the Motor Transport Section, Shepherd Road Police Station, Bombay. (The work was completed during the year 1949-50).

(6) Construction of additional Armouries at (a) the Head Police Station, (b) Byculla Police Station and (c) Lamington Police Station compound, Bombay.

(7) Additions and alterations to the Military Hutments, Phases I, II and III for housing Police Constables at Worli (Part I and II schemes).

(8) Constructing Quarters for the Assistant Drill Inspectors at the Police Training School, Nasik. (This work was completed during the year 1949-50).

(9) Constructing Quarters for two armed Police Head Constables and six Constables, with latrine block of four seats at Dhadgaon in West Khandesh. (This work was in progress during the years 1949-50 and 1950-51 also).

During the year 1949-50

(10) Construction of an additional storey on the old Criminal Investigation Department Building, for providing more office accommodation.

(11) Construction of Constabulary Quarters for Policemen at Ahmedabad. (This work was in progress during the year 1950-51 also).

During the year 1950-51

(12) Construction of additional lock-up for 60 prisoners at Grant House, Palton Road, Bombay.

(13) Additions and alterations to the Military Barracks G-1, G-2, G-4 and G-5 at Worli, for converting them into quarters for Sub-Inspectors and Jamadars of the Bombay City Police.

(14) Constructing permanent garages for the Police Motor Vehicles at Poona.

(15) Construction of Police Lines at Murgad in Kolhapur Division.

(16) Additions and alterations to the Karanj Police Station Buildings, Ahmedabad.

Education : Works

Year.					Expenditure.
					Rs.
1945-46	...	...	...	...	8,27,419
1946-47	...	...	...	...	6,09,121
1947-48	...	...	...	...	6,19,999
1948-49	...	...	...	...	3,50,775
1949-50	...	...	...	...	11,85,658
1950-51	...	...	...	...	6,00,265
				Total ...	41,93,237

The following were some of the important works, which were either in progress or completed under this head during the period under review :—

During the year 1945-46

(1) Additions and alterations to the Elphinstone College Buildings, Bombay.

(2) Construction of additional buildings in connection with the expansion of the College of Engineering, Poona. (This work was in progress during all the six years under report).

(3) Constructing a new Chemistry Laboratory Building for the Karnatak College, Dharwar.

During the year 1946-47

(4) Additions and alterations to the Basic Training Centre at Loni Kalbhor. (The work was in progress during the year 1947-48 also).

During the year 1947-48

(5) Providing furniture, fixtures, water and gas plant and equipment in the New Science Building in the Gujarat College, Ahmedabad.

(6) Construction of a Hostel for Backward Class Students at Poona.

During the year 1948-49

(7) Providing (a) Additional accommodation for and (b) Furniture fixtures in the New Science Institute in the Gujarat College, Ahmedabad.

(8) Additions and alterations to the old Science Institute at the Gujerat College, Ahmedabad. (This work was in progress during the year 1949-50 also).

(9) Constructing Quarters for the Principal, Government Law College, Bombay. (This work was completed during the year 1949-50).

(10) Constructing a New Building for the Girls' Hostel near Charni Road Gardens, Bombay. (This work was completed during the year 1950-51).

(11) Construction of the Elphinstone College Hostel on plot No. 44, Back Bay Reclamation Scheme, Bombay. (The work was completed during the year 1950-51).

(12) Construction of a building for the Training College for Men at Panvel. (The work was completed during the year 1950-51).

During the year 1949-50

(13) Additions and alterations to the School of Architecture at Sir J. J. School of Arts, Bombay.

(14) Construction of Buildings for the Arts and Science College at Visnagar. The work was in progress during the year 1950-51 also).

(15) Construction of the New Engineering College at Ahmedabad. (This work was in progress during the year 1950-51 also).

(16) Constructing Botany Buildings in the Karnatak College, Dharwar. (This work was in progress during the year 1950-51 also).

(17) Construction of Buildings for the Secondary Training College at Belgaum. (This work was in progress during the year 1950-51 also).

During the year 1950-51

(18) Construction of a Building for the National Cadet Corps in the Ismail Yusuf College compound at Andheri.

(19) Construction of a Building for the Children's Centre (Bal Bhavan in the Charni Road Gardens, Bombay).

(20) Construction of a New Building for Physics Department of the Karnatak College, Dharwar.

Medical—Works

Year.						Expenditure. Rs.
1945-46	...	...	...	...	...	3,70,141
1946-47	...	...	...	...	...	3,75,115
1947-48	...	...	...	...	...	6,28,952
1948-49	...	...	...	...	...	4,85,131
1949-50	...	...	...	...	...	8,24,684
1950-51	...	...	...	...	...	5,01,340
Total					...	31,85,363

The following were some of the important works, which were either in progress or completed under this head, during the period under report :—

During the year 1945-46

(1) Works in connection with the Scheme for Manufacture of Sera and Vaccines at the Haffkine Institute, Bombay :—(a) Providing a separate self-contained Laboratory Block for Pathogenic Spore bearing organism (Specially Tetanus), (b) Providing additional Laboratory accommodation for the scheme, (c) Providing additional works (Phase II, 14 sub-works), (d) Construction of Isolation Ward for horses, (e) Construction of Quarters for Syces, Peons, etc., and (f) Construction of Quarters for six Sub-Assistant Surgeons, with drainage and water fittings. (Some of these works were carried and completed till the year 1949-50).

(2) Providing additional lavatories, baths and surgery rooms in Ward XIV (for infectious diseases) in the Compound of the St. George's Hospital, Bombay.

(3) Constructing a Leper Hospital at Pui, Kolaba District.

(4) Constructing huts for 50 lepers in the Leper Hospital, Ahmedabad.

During the year 1946-47

(5) Works in connection with the Scheme for Manufacture of Glucose Saline, etc., at the Haffkine Institute, Bombay :—(i) Extension to ground floor for washing accommodation, having brick walls, R. C. C. beams, roof slab and red cement tiled floor and dado, (ii) Store room for liquid chemicals, (iii) Extension to the existing carpenters shed and (iv) Additions and alterations to store room of Pharmacological Laboratory for making pyragene free distilled water for blood plasma.

(6) Additions and alterations to the B. J. Medical College, Ahmedabad. (This work was in progress during the year 1947-48 as well).

During the year 1947-48

(7) Providing a surface storage tank, pipes and fittings and a pump house with pumping sets, in the compound of the St. George's Hospital, Bombay. (This work was completed during the year 1949-50).

(8) Special repairs to the first and second floors of the Haffkine Institute, Parel, Bombay. (Completed during the year 1948-49).

(9) Construction of an Anatomy Building for the B. J. Medical College, Poona.

(10) Construction of Male Students' Hostel for the B. J. Medical College, Poona.

During the year 1948-49

(11) Additions and alterations to the Police Out-Post at Kirwalli in Kanara Division for accommodating a Dispensary and Quarters for the staff.

(12) Constructing a Nursery for the new born in the compound of the Cama and Albless Hospitals, Bombay. (The work was completed during the year 1949-50).

(13) Providing R. C. C. surface reservoir, pump house and other water fittings in the J. J. Hospitals and additions and alterations to the old Hostel of the Grant Medical College, Bombay. (These works were in progress during the year 1949-50 also).

(14) Extension to the Anatomy Museum of the Grant Medical College, Bombay. (The work was completed during the year 1949-50).

(15) Construction of a Hostel for Lady Students of the Grant Medical College, in the compound of the J. J. Hospitals, Bombay. (This work was in progress during the years 1949-50 and 1950-51 also).

During the year 1949-50

(16) Construction of a Cottage Hospital at Dahanu. (This work was in progress during the year 1950-51 also).

(17) Construction of Buildings for the Medical College, Poona. (This work was in progress during the year 1950-51 also).

(18) Construction of New Buildings for the B. J. Medical College and New Civil Hospital at Ahmedabad. (These works were in progress during the year 1950-51 as well).

(19) Construction of the Medical College with Hospital extension including equipment at Baroda.

(20) Construction of an Antenatal clinic on Fateh Ganj area, Baroda.

During the year 1950-51

(21) Purchase of land and buildings of the Military Hospital and Aundh and effecting repairs and electric installations to the Buildings.

22) Constructing a Maternity Home at Shirahatti, District Dharwar.

<i>Public Health—Works</i>			<i>Agriculture—Works</i>		
		Expenditure.			Expenditure.
Year.		Rs.	Year.		Rs.
1945-46	...	29,150	1945-46	...	14,27,228
1946-47	...	3,055	1946-47	...	2,72,615
1947-48	...	8,966	1947-48	...	3,88,820
1948-49	...	21,409	1948-49	...	85,348
1949-50	...	53,504	1949-50	...	2,19,665
1950-51	...	16,578	1950-51	...	73,994
		<hr/>			<hr/>
Total	...	1,32,662	Total	...	24,67,670
		<hr/>			<hr/>

The following were some of the important works, which were either in progress or completed under this head, during the period under review:—

During the year 1945-46

(1) Additional buildings in connection with the expansion of the College of Agriculture, Poona. (This work was in progress during all the six years under report).

(2) Additional buildings in connection with the expansion of the Agriculture Farm at Manjri. (The work was in progress till the year 1949-50).

(3) Construction of Rural Training Centre at Bhuwa (District Broach). (The work was completed during the year 1946-47).

(4) Construction of buildings for the Dry Farming Training Centre at Sholapur. (The work was completed during the year 1948-49).

During the year 1946-47

(5) Construction of a hostel for students, class room, store room, etc., at the Government Poultry Farm at Dhulia.

During the year 1947-48

(6) Construction of buildings for the Agricultural College at Yatingudda, Dharwar. (This work was also in progress during the subsequent years under report).

(7) Construction of buildings for the Agricultural Training Centre at Devihosur. (This work was also in progress during the subsequent years under report).

During the year 1948-49

(8) Construction of additional buildings for the Dry Farming Research Station at Mulegaon, District Sholapur.

(9) Construction of buildings for the Dry Cattle Farm at Kedgaon, District Sholapur.

(10) Construction of a permanent Farm Building for the Agricultural School at Satara. (This work was in progress during the year 1949-50 also).

(11) Construction of an Agricultural School at Arbhavi, District Belgaum. (This work was in progress during the last three years under review).

During the year 1950-51

(12) Constructing the Wool Analysis Laboratory at the Sheep Breeding Farm, Poona.

Veterinary—Works

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	59,262
1946-47	...	...	...	...	...	30,572
1947-48	...	...	...	...	...	92,046
1948-49	...	...	...	...	...	45,985
1949-50	...	...	...	...	...	1,40,259
1950-51	...	...	...	...	...	1,04,047
					Total	4,72,161

The important works either in progress or completed under this head, were :

During the year 1945-46

(1) Construction of veterinary dispensary and cattle shed at Kopergaon.

(2) Construction of veterinary dispensary at Nagthana.

During the year 1946-47

(3) Construction of a new Anatomy Hall in the compound of the Lezeretto at Parel.

During the year 1947-48

(4) Construction of temporary Quarters for students and stockmen in the compound of the Bombay Veterinary College, Parel, Bombay.

During the years 1948-49 and 1949-50

(5) Construction of a veterinary dispensary at Khed, District Ratnagiri.

(6) Construction of a veterinary dispensary at Shedbal, Miraj Division,

During the years 1949-50 and 1950-51.

(7) Construction of a Veterinary Dispensary at Mahud, Taluka Pandharpur, district Sholapur.

Industries—Works.

Year.					Expenditure.
					Rs.
1945-46	...	...	...	...	60,433
1946-47	...	...	...	...	42,041
1947-48	...	...	...	...	5,01,050
1948-49	...	...	...	...	2,51,823
1949-50	...	...	...	...	1,94,324
1950-51	...	...	...	...	3,24,004
				Total	13,73,675

Some of the important works either in progress or completed under this heading during the period were :—

During the year 1945-46.

(1) Construction of Fisheries Technological Laboratory at Sassoon Dock, Colaba, Bombay. (The work was in progress during the year 1946-47 also).

During the year 1946-47.

(2) Construction of buildings for the Tanning Institute and Leather Working School at Khar. (The work was in progress during the year 1947-48 also).

During the year 1947-48.

(3) Construction of Second Industrial Workshop at Ahmedabad. (In progress during the years 1948-49 and 1949-50 also).

(4) Construction of buildings in connection with the reorganisation of the R. C. Technical Institute, Ahmedabad.

(5) Construction of buildings for the Industrial School at Hubli. (Also in progress during the years 1948-49 and 1949-50).

(6) Construction of buildings for the Industrial School at Bijapur. (Also in Progress during the subsequent years).

During the years 1948-49 and 1949-50.

(7) Construction of buildings for the Technical High School at Hubli.

During the year 1949-50.

(8) Constructing a two storeyed annexe to the Fisheries Technological Laboratory at Sassoon Dock, Bombay.

(9) Construction of the Fisheries School at Satpati, Taluka Palghar, District Thana.

(10) Establishment of Fish Farm at Khopoli.

During the year 1950-51.

(11) Construction of buildings for the Tanning Demonstration Centre at Satara.

(12) Construction of Government Industrial Training Workshop at Kurla.
(In progress during the last three years).

(13) Construction of the Taraporewala Aquarium on Marine Lines Road, Bombay.

(14) Constructing buildings for the Industrial School at Satara.

Civil Works—Works.

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	2,04,736
1946-47	...	...	...	...	...	4,03,896
1947-48	...	...	...	...	...	2,17,451
1948-49	...	...	...	...	...	1,96,462
1949-50	...	...	...	...	...	4,97,974
1950-51	...	...	...	...	...	3,88,394
					Total	19,08,913

The important works either in progress or completed under this head, during the period, were :—

During the years 1945-46 and 1946-47.

(1) Construction of an office building for the Chief Engineer, Public Works Department, Poona.

During the year 1947-48.

(2) Construction of office for Backward Class Department, Poona.

During the years 1948-49 to 1950-51.

(3) Construction of 20 semi-permanent Bungalows for Government Officers on reclaimed land along Foreshore Road, Block III, Back Bay Reclamation Scheme, Bombay.

Stationery and Printing—Works.

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	10,188
1946-47	...	...	...	...	...	1,666
1947-48	...	...	...	...	...	16,930
1948-49	...	...	...	...	...	29,489
1949-50	...	...	...	...	...	25,612
1950-51	...	...	...	...	...	76,216
					Total	1,60,101

Miscellaneous Departments—Works.

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	6,42,465
1946-47	...	...	...	...	...	2,24,027
1947-48	...	...	...	...	...	1,46,761
1948-49	...	...	...	...	...	1,34,535
1949-50	...	...	...	...	...	2,89,975
1950-51	...	...	...	...	...	3,55,522
Total ...						18,04,194

The following were some of the important works which were either in progress or completed under this head during the period :—

During the year 1945-46.

(1) Providing office accommodation of hutment type, consisting of four blocks of equal dimensions each measuring 120'×24' with a verandah of 4 feet for the Special Officer, Electric Grid, Bombay.

(2) Constructing Female Beggars' Camp at Chembur—Stages I and II. (The work was in progress during the year 1946-47 also).

(3) Constructing additional structures in the compound of King George V Infirmary and Destitute Home for accommodating crippled and infirm beggars. (The work was in progress during the year 1946-47 also).

(4) Constructing godowns for storing grain in the compound of the Spring Mills at Naigaum, Bombay.

During the year 1946-47.

(5) Construction of "A" type Recreation Centre at Sholapur. (Completed during the year 1949-50).

During the year 1948-49.

(6) Construction of a storey over the existing "A" type Labour Welfare Centres at the Development Department Chawls at Worli and Naigaum. (These works were completed during the year 1949-50).

(7) Repairs to the Military Hutments in the Relief Camps for the displaced persons at (a) Kalyan, (b) Mulund, (c) Powai, (d) Chembur, (e) Akbar Camp and (f) Nari Seva Sadan, Kurla.

During the year 1949-50.

(8) Construction of Recreation Ground at Kadi, district Mehsana.

(9) Construction of Recreation Ground at Patan, district Mehsana.

(10) Additions and alterations to the old Yacht Club Building, Bombay to make it suitable for accommodating Government offices.

During the year 1950-51.

11) Construction of Quarters for additional staff for Male Beggars Home at Visapur.

(12) Constructing Buildings for Blind Beggars' Home at Chembur.

(13) Construction of two dormitories for displaced beggars in Odhar Village near Ahmedabad, under the Beggars Scheme.

(14) Conversion of the "A" type Labour Welfare Centre at Worli into a Working Class Theatre.

(15) Additions and alterations to the barracks at Foreshore Road to accommodate five Industrial Courts and one Labour Court and Judges' Chambers, office, etc.

Special Development Programme—Works.

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	81,976
1946-47	...	...	...	...	...	98,136
1947-48	...	...	...	...	...	98,692
1948-49	...	...	...	...	...	1,34,265
1949-50	...	...	...	...	...	4,882
1950-51	...	...	...	...	...	989
					Total ...	4,18,940

50—Civil Works—Miscellaneous—Works.

Year.						Expenditure.
						Rs.
1945-46	...	...	...	...	...	1,02,587
1946-47	...	...	...	...	...	74,676
1947-48	...	...	...	...	...	1,46,761
1948-49	...	...	...	...	...	31,246
1949-50	...	...	...	...	...	94,841
1950-51	...	...	...	...	...	2,61,577
					Total ...	7,11,688

COMMUNICATIONS

The works under this head are classified as under :—

Projects financed from—

- (1) Ordinary Revenue,
- (2) Central Road Fund,
- (3) State Road Fund,
- (4) Post War Reconstruction and Development Programme, and
- (5) National Highways.

The total expenditure incurred on works under each of these heads, during the six years under review, is given as under :—

(I) *Ordinary Revenue*—

Year.	Works. Rs.	Expenditure on Repairs. Rs.	Total. Rs.
1945-46	10,68,210	1,00,55,704	1,11,23,914
1946-47	17,23,418	75,52,499	92,75,917
1947-48	14,92,003	59,36,509	74,28,512
1948-49	12,66,030	69,92,641	82,58,671
1949-50	16,64,533	92,91,770	1,09,56,303
1950-51	11,41,939	45,19,250	56,61,189
Total	83,56,133	4,43,48,373	5,27,04,506

(II) *Central Road Fund*—

Year.	Expenditure. Rs.
1945-46	16,14,102
1946-47	11,48,900
1947-48	4,95,776
1948-49	3,91,108
1949-50	2,73,843
1950-51	3,55,556
Total	42,79,285

(III) *State Road Fund*—

Year.	Expenditure. Rs.
1945-46	9,75,345
1946-47	1,52,109
1947-48	72,370
1948-49	2,26,068
1949-50	2,80,677
1950-51	72,08,897
Total	89,15,466

(IV) *Special Development Fund (Post War Reconstruction and Development Programme)*—

Year.					Expenditure.
					Rs.
1945-46	...	...	...	...	3,39,248
1946-47	...	...	...	...	7,41,190
1947-48	...	...	...	...	.....
1948-49	...	...	...	...	20,32,870
1949-50	...	...	...	...	24,29,274
1950-51	...	...	...	...	19,29,696
				Total ...	74,72,278

(V) *National Highways*—

Total expenditure on works under this head during the last three years under review is as follows :—

	1948-49.	1949-50.	1950-51.	Total
	Rs.	Rs.	Rs.	Rs.
Works	1,38,666	7,17,890	8,59,353	17,15,909
Repairs	30,87,824	27,63,098	31,18,795	89,69,717
				32,26,490
				34,80,988
				39,78,148
				1,06,85,626

Some of the important road works, which were either in progress or completed, during the period under review, under each of the above heads, are given below :—

I. **PROJECTS FINANCED FROM THE ORDINARY REVENUE**

- (1) Diversion of the Bombay-Ahmedabad Road near Rander Town in miles Nos. 214 to 217 (during the years 1945-46, 1946-47 and 1947-48).
- (2) Tapti Flood Works consisting of (i) removing the embankment and the two road approaches—cement concrete road approach over spillway No. 1, (ii) Providing dry pitching in the Right Bank of the River between Surat and Rander in two furlongs and (iii) Fixing and constructing groynes on the Right Bank of the River. (The works were completed during the year 1946-47).
- (3) Constructing bridges over dips and improvements to certain dips on the Poona-Ahmednagar Road (during the years 1945-46, 1946-47 and 1947-48).
- (4) Approaches to the proposed Railway overbridge at Nasik Road—Acquisition of land and houses (during the year 1946-47).
- (5) Improvements to Khandesh Nizam's Frontier Road, Miles 65-69 (during the year 1947-48).
- (6) Modernising South Main Road, Koregaon Park, Poona, by laying 2½" full grout asphalt macadam (during the years 1945-46 and 1946-47).
- (7) Construction of a temporary bridge over Kop nalla near Indoor (during the year 1948-49).
- (8) Constructing three Bridges in Miles Nos. 3/7, 13/4 and 21/7 of Guhagar-Chiplun Road (during the year 1948-49).

- (9) Special repairs to miles 67-69, 73, 75, 76, 134 to 141 and 143 to 145/4 of Guhaghar-Karad-Jath-Bijapur Road. (During the year 1948-49).
- (10) Special repairs to Surul-Mahableshwar-Poladpur Road—Miles 14/4 to 16/3, 18 to 23, 25/1 to 27/5, 32, 33 and 35 to 37. (During the year 1948-49).
- (11) Special repairs to Ahmedabad-Viramgaon Road—Sections I and III. (During the year 1948-49).
- (12) Improvements to drain No. 48 in mile No. 16/3 of Khandesh-Nizam Frontier Road. (During the years 1948-49 and 1949-50).
- (13) Improvements to Khandesh-Nizam Frontier Road—Miles 65 to 69. (The work was in progress during the years 1948-49 and 1949-50).
- (14) Construction of Taloda-Raisingpur Road—Part I. (In progress during the years 1948-49, 1949-50 and 1950-51).
- (15) Improvements to Gadag-Badami Road—Miles 22 to 34. (In progress during the years 1948-49, 1949-50 and 1950-51).
- (16) Dust-proofing the portion of Belgaum-Vengurla Road passing through the limits of Vengurla Municipality. (During the years 1948-49, 1949-50 and 1950-51).
- (17) Constructing a High Level Crossing over Ara River on Veldur-Guhaghar Road. (During the years 1948-49 and 1949-50).
- (18) Construction of a temporary Bridge over the river Tapi at Sarangkhedra in the West Khandesh. (During the years 1949-50 and 1950-51).
- (19) Construction of Dudhani-Maindagi Road. (During the years 1949-50 and 1950-51).
- (20) Construction of Barwala-Navda Road. (During the year 1949-50).
- (21) Construction of Viramgaon-Shahapur Road.
- (22) Construction of Balasinor-Birpur Road. (During the years 1949-50 and 1950-51).
- (23) Asphalted the road surface in Miles Nos. 73 and 74 of Poona-Nagar Road. (During the year 1950-51).

II. PROJECTS FINANCED FROM THE CENTRAL ROAD FUND

- (1) Modernising Bombay-Poona Road with cement concrete surface—Miles 57 to 59 and 61 to 65. (During the years 1945-46 and 1946-47).
- (2) Modernising Bombay-Agra Road with cement concrete surface—Miles 37 to 58. (During the years 1945-46, 1946-47 and 1947-48).
- (3) Constructing a R. C. C. Bridge with approaches on the Auranga River at Bulsar. (During the years 1945-46 to 1947-48).
- (4) Constructing a R. C. C. Bridge over the Watrak River at Kaira with protective works and approaches. (During the years 1945-46 and 1946-47).
- (5) Constructing a road from Borsad to Bhadrans on the Jambusar-Borsad Section. (During the years 1945-46 to 1947-48).
- (6) Construction of a submersible bridge over the Indrayani River at Mulsi of the Poona-Nasik Road. (During the years 1945-46 and 1946-47).
- (7) Modernising the roads in Poona IV instalment Elphinstone Road and Deccan College Road. (During the years 1945-46 and 1946-47).
- (8) Improvements to asphalted portion in miles 150/1 to 150/2 of Poona-Sholapur Road. (During the years 1945-46 and 1946-47).
- (9) Construction of a R. C. C. Bridge across the Vashisti River at Chiplun on the Hatkhamba-Poladpur Road. (During the years 1946-47 and 1947-48).

- (10) Construction of a bridge across the Kharepatan Creek in mile 45 of the Pali-Phonda Road. (During the years 1946-47 to 1948-49).
- (11) Improvements to miles 18 to 45 and 46 to 83 of Shirpur-Raver Section (During the years 1948-49 and 1949-50).
- (12) Constructing a submersible causeway over the river Mor in mile 3/6 of Bhusawal-Yawal Road. (During the year 1949-50 also).
- (13) Improvements to the road surface of Yellapur-Sirsi Section—Part I. (This work was in progress since the year 1946).
- (14) Constructing R. C. C. Bridges over Nallas in miles 8/7 to 10/2 of Sholapur-Bijapur Road.
- (15) Remetalling Link Road—Karad-Bijapur and Karad-Tasgaon Roads in Satara Division. (During the year 1950-51).

III. PROJECTS FINANCED FROM THE STATE ROAD FUND

- (1) Modernising Bombay-Poona Road with cement concrete surface, miles 28-29, 30-31, 42, 43, 53 and 54. (During the year 1945-46).
- (2) Modernising Bombay-Agra Road—Miles 71 and 72 (2½" full grout asphalt portion). (During the years 1945-46 and 1946-47).
- (3) Cement concreting Miles 3/0 to 6/0 of the Poona-Bangalore Road. (During the years 1945-46 and 1946-47).
- (4) Constructing a R. C. C. Bridge over the Bhima River at Hingangaon on Poona-Sholapur Road. (During the years 1945-46 and 1946-47).
- (5) Construction of a R. C. C. Girder Bridge across the River Pravara at Sangamner. (During the year 1945-46).
- (6) Constructing a submersible causeway over the river Indrayani at Dehu in Poona District. (During the years 1948-49, 1949-50 and 1950-51).
- (7) Construction of Dhulia-Amalner-Tapi Road. (During the years 1948-49 and 1949-50).
- (8) Providing boulder soling and remetalling with 3" coat of metal in Miles 32, 39 to 46 and 50 of Gadag-Pala Road. (During the years 1948-49 and 1949-50 also).
- (9) Improvements to Satara-Pandharpur Road—Section III—Miles 55, 57 to 61. (During the year 1948-49).
- (10) Strengthening the Bridge across the Savitri River in Mile No. 3/5 of Mahad-Pandharpur Road. (During the year 1950-51).
- (11) Construction of a Bridge across Khari River—Naroda-Dehgaon-Harsol Road. (During the year 1950-51).

IV. PROJECTS FINANCED FROM THE POST-WAR RECONSTRUCTION AND DEVELOPMENT PROGRAMME.

- (1) Construction of a R. C. C. Bridge across the Sonvi River in mile 16/5 of Sakharpa-Sangameshwar Road. (During the years 1945-46 to 1947-48).
- (2) Constructing five "Keren Bridges" on the District Local Board roads in the Ratnagiri District—
 - (i) over Nalla in mile No. 2/1, (ii) over Waki River in mile No. 3/6 of Bhosti-Khopi Road, (iii) High Level Causeway in Mile No. 0/2 of Palshet-Tawasal Road, (iv) over Ara River on Veldur-Guhaghar Road and (v) a masonry bridge in mile 0/1 of the Arawali-Makhajan Road. (During the years 1945-46 to 1947-48).
- (3) Construction of Bassein-Ambadi-Vada-Shirghat Road—Modernising the road from Bassein Town to Bassein Road Railway Station. (During the years 1948-49 and 1949-50).

- (4) Constructing a Bridge over the Bhogeshwari River in mile 18/8 of Alibag-Khopoli Road. (During the year 1948-49).
- (5) Construction of Chandur-Manmad-Nandgaon-Chalisgaon Road. (During the years 1948-49 to 1950-51).
- (6) Construction of Phaltan-Sangvi-Baramati-Diksal Road. (During the years 1948-49 to 1950-51).
- (7) Construction of Mugalkhod-Handigund Road. (During the years 1948-49 and 1949-50).
- (8) Constructing Chikmanpur-Savadi-Hadgali-Gujamegadi Road. (During the years 1948-49 to 1950-51).
- (9) Constructing four Bridges in Miles 43/4, 44/3, 46/3 and 37/6 of Karwar-Bellary Road. (During the year 1948-49).
- (10) Reconstruction and bringing up to standard Khed-Khopi-Shirgaon Road. (During the years 1948-49 to 1950-51).
- (11) Construction of Anand-Chikodra-Lingda Road from Anand Station to Agricultural Institute. (During the years 1948-49 to 1950-51).
- (12) Constructing Dahiwadi-Mograla-Phaltan State Border Road—Sections I and II. (During the years 1948-49 and 1949-50).
- (13) Construction of Nandgaon-Vehelgaon-Pilkhod Road. (During the years 1949-50 and 1950-51).
- (14) Construction of Satara-Pandharpur-Mohol-Sholapur-Akalkot Road. (During the year 1949-50).
- (15) Construction of Bandra-Ghodbunder-Thana Road—Bandra-Borivli Relief Road. (During the year 1949-50).
- (16) Construction of Dwarka-Okha Road. (During the years 1949-50 and 1950-51).
- (17) Construction of Ahmedabad-Gondal-Porbunder Road. (During the years 1949-50 and 1950-51).
- (18) Construction of Anand-Sojitra Road—Section from Anand to Karamsad. (During the years 1949-50 and 1950-51).
- (19) Construction of Barhanpur-Ravel-Yawal-Shirpur-Taloda-Raisingpur Road—Section Shirpur-Chopda.
- (20) Constructing a Bridge over river Man near Mhaswad on Satara-Pandharpur-Mohol Road.
- (21) Reconstructing and bringing up to standard Athani-Gokak-Saundatti-Dharwar District Border Road—Section Athani to Anantpur.

ARBORICULTURE

Nurseries were maintained at various places during the period under review and planting and watering of roadside trees continued to receive attention as usual. The number of trees maintained along roads in charge of the Public Works Department at the end of the period under review, was 7,95,178.

Public Health Circle of the Public Works Department

The activities of the Public Health Circle of the Public Works Department have also increased enormously since the integration and merger of the States. These activities, at present, comprise :—

(a) Advising Government institutions and local bodies in matters concerning environmental sanitation and public health.

(b) Maintenance of water supply and drainage works owned by Government and on behalf of the Municipalities.

(c) Preparation and execution of Water Supply and Drainage Projects of Government and on behalf of the Municipalities.

(d) Advising Government in the matter of purchase, maintenance and repairs, depreciation, etc., of all pumping and boring machinery.

(e) Running a workshop for (a) repairs of road-rollers and other Government machinery, (b) supply of various types of castings required for Public Health Schemes and (c) training of young boys as artisans.

(f) Training of superior and subordinate staff in the specialised branch of Public Health Engineering.

The Public Health Circle consists of a Public Health Engineer to Government, an Assistant Public Health Engineer, a Mechanical Assistant to the Public Health Engineer, a Personal Assistant and a number of Executive Engineers. During the period of six years under review, the number of Divisions in the Public Health Circle was increased from 2 to 6 and that of the Sub-Divisional charges were increased from 10 to 30.

WATER SUPPLY AND DRAINAGE SCHEMES

Due to merger of the States, a heavy strain was experienced in the Public Health Circle also, as additional responsibility of maintaining and running the water works in these States had to be shouldered by this Department. Particularly Baroda State had a very large programme of Post-War Reconstruction Works. The Schemes mentioned below were sanctioned by the Late Baroda Government and were actually under execution at the time of the merger of the State :—

		Estimated cost in lakhs.
		Rs.
(1) Remodelling Baroda City Water Works	... ..	38·32
(2) Remodelling Bhadrang Water Works...	... ..	2·27
(3) Karjan Water Works	... ..	2·69
(4) Kalol Water Works	... ..	10·80
(5) Amreli Water Supply Stage I	... ..	3·3
(6) Improvements to Sewage Disposal Works, Baroda	... ..	16·00
(7) Vaso Water Works	... ..	2·51
(8) Bhadarpur Water Works	... ..	1·42
(9) Laying additional lines at Dehgam	... ..	0·65
(10) Additional Drainage lines for Visnagar	... ..	0·47
(11) Constructing experimental well at Kheralu	... ..	0·068
(12) Special Repairs to Vadnagar Feeder Channel	... ..	0·55
(13) Drainage House connections for Baroda Municipality	... ..	.....
(14) Achisara Water Supply	... ..	.....
(15) Sojitra Drainage Scheme	... ..	.....

Village Water Supply Schemes.

(16) Bamangaon Water Supply	... ..	0·43
(17) Kandari Water Supply	... ..	0·36
(18) Pilwai Water Supply	... ..	0·49
(19) Ladol Water Supply	... ..	0·54
(20) Sokhada Water Supply	... ..	1·34

These schemes were being carried to completion. Amreli Water Supply—age I, Vaso Water Supply, Achisara Water Supply were already completed by the year 1949-50.

Besides the Schemes mentioned above, there were other 26 Public Health Schemes and 28 villages Water Supply Schemes which were sanctioned by the late Baroda Government on cubicage basis or on rough plans and estimates without proper details, but were not under execution at time of merger. These Schemes required thorough investigation and revision.

KOLHAPUR WATER SUPPLY

The Kolhapur Water Works were taken over in April-May 1949. At that time, Kolhapur was being supplied with water from:—

	Year of construction.	Quantity of water supplied.
(a) Kalamba Water Works	... 1,883	1.5 Million gallons per day.
(b) Panchganga Water Works	... 1,928	0.5 Million gallons per day.

The New Balings Water Works, estimated to cost Rs. 30,08,250 was nearing completion, at the time of merger. The works were carried to completion and were opened on the 12th April 1949.

The General progress made by the Public Health Circle, by the year 1950-51 on the works under execution, is briefly summarised hereunder.

MAJOR SCHEMES

1. *Neersagar Water Supply Scheme for Dharwar and Hubli.*—The scheme was technically sanctioned in March 1948 and is estimated to cost Rs. 141.38 lakhs gross. Construction of staff quarters at Dhumwad and Kanvihonnapur were completed. 18" diameter Pure Water Rising Main was in progress. Approach road along 27" Rising Main was completed. The progress was slightly behind the schedule, due to non-availability of contractors and delay in securing the earth-moving machinery. The works are being carried out departmentally.

2. *Improvements to Alandi Water Supply Scheme.*—The Scheme was approved and technically sanctioned in August 1949. All works, such as Aeratian Fountain, Clarifier, Flocculator, Filler House, Pure Water Sump, etc., were completed, except installation of Flocculating machinery, the pumping machinery, etc.

3. *Kalyan-Dombivli Water Supply Scheme.*—The Scheme has been approved and technically sanctioned in May 1950 and is estimated to cost Rs. 39.24 lakhs. Construction of Engine House, Co-agulating Tank, Filter House has been commenced. Laying of 24" Rising Main was in progress.

4. *Saswad Water Supply Scheme.*—The scheme was technically sanctioned in June 1949. The work of the Service Reservoir was in Final stage and the work of excavation for Head work was in progress.

5. *Improvements to Surat Water Supply—Distribution System.*—The scheme was approved in February 1947 and technically sanctioned in March 1948. Nearly 75 per cent. of the work was completed by the close of year 1950-51 and the works were expected to be completed in all respects by the end of March 1952.

6. *Islampur Water Supply Scheme.*—The Scheme was technically sanctioned in April 1948. All works except the Engine House were nearing completion. The work of the Engine House and Rising Main were in progress.

7. *Nipani Water Supply Scheme.*—The Scheme was technically sanctioned in November 1949 and it is estimated to cost Rs. 13·58 lakhs gross. The actual execution of the Scheme was started in December 1950 and the work completed by the end of the year 1950·51 was 10 per cent. The construction of the High Service Reservoir, the laying of 10" Rising Main and 12" Gravity Main were nearly completed.

8. *Nadiad Water Supply Scheme.*—The Scheme was first technically sanctioned in June 1946 but was required to be revised. The revised cost was estimated to Rs. 23,64,526. The work was almost completed, except the work of a few 2" lines. The water works were opened for use of the public in April 1950.

9. *Nadiad Drainage Scheme.*—The Scheme was technically sanctioned in March 1948 and the actual work was started in August 1948, but the progress was hampered due to delay in procuring machinery as also the poor financial condition of the Local Body. The progress achieved was however, completion of the works to about 75 per cent.

10. *Kaira Water Supply Scheme.*—The Scheme was technically sanctioned in May 1948. The Jack Well was sunk up to R. L. 25·00. Elevated Service Reservoir—Floor footing, beam bracing, columns, etc., concreted. Ring Beam was in progress. The percentage of work carried out by the end of 1950-51 was 40 per cent.

11. *Improvements to Karad Water Supply.*—The Scheme was technically sanctioned in July 1948 and the actual work was started in May 1949. Progress in the work was hampered as the original contract had to be cancelled. The Reservoir and the Rising Main were completed. Laying of distribution main in two zones was in progress.

12. *Ahmednagar Filtration Plant.*—The Scheme was technically sanctioned in January 1949, but was taken up for execution very late as all the tenders were above 5 per cent. of the total estimated cost. The work completed by the end of the year 1950-51 were only 10 per cent.

13. *Bhiwandi Water Supply Scheme.*—The Scheme was technically sanctioned in August 1949. The estimated cost is Rs. 7,04,145. The actual execution of the scheme could not be taken up till 29th December 1950 when the foundation stone was laid.

14. *Matheran Water Supply Scheme.*—The Scheme estimated to cost Rs. 3,12,712, has been technically sanctioned in March 1949, but it is required to be revised.

15. *Sinnar Water Supply Scheme.*—The Scheme has been technically sanctioned in April 1948. The actual execution was not taken up in hand for want of deposit from the Municipality of its adequate share towards the Scheme.

16. *Malegaon Water Supply Scheme.*—The Scheme was technically sanctioned in March 1949. The Municipality, however, was not in a position to pay its share till very late and the works were taken up for execution by the close of the year 1950-51.

17. *Umreth Water Supply Scheme.*—The Scheme was technically sanctioned in July 1948, but its execution held up for want of necessary deposit of funds by the Municipality.

18. *Improvements to Surat Water Supply Scheme—Head Works.*—The Scheme was technically sanctioned in March 1948. All the works, except laying pipe line in river bed, were completed as much as 95 per cent. and the rest portion of the work was expected to be completed by April 1952.

19. *Improvements to Surat Water Supply—Protection of Pipe Line.*—The Scheme was technically sanctioned in March 1950 at an estimated cost of Rs. 95,255. The existing pipe line is of 450 feet length and is constructed to stabilize the river bed in heavy floods. The work was completed in the year 1950-51.

20. *Surat Drainage Scheme.*—The Scheme was technically sanctioned in March 1948, but was required to be revised. The actual execution was carried out by the Municipality through its own agency.

21. *Improvements to Panvel Water Supply.*

22. *Hubli Drainage.*

23. *Laying Additional lines for Dehgaon Water Works.*

24. *Achisara Water Works.*

25. *Installation of Pumping Plant at Sholapur.*

26. *Sholapur Water Supply—Covering two Service Reservoirs.*

27. *Navalgund Water Supply—Desilting Neelawas Tank.*

The above seven works were being executed by the Municipalities concerned through their own private agencies.

28. *Remodelling Baroda City Water Works.*—The Scheme was sanctioned by the late Baroda Government in 1946 at an estimated cost of Rs. 38.32 lakhs. The works were already started by the late Baroda Government and the remaining works were in progress. The work of elevated tanks R. C. C. underground Sump 36" main from Ajwa to Nimetia was completed.

29. *Remodelling Bhudran Town Water Supply.*—The works were started by the late Baroda Government. The Major portion of the works was completed by the close of the year 1950-51.

30. *Karian Town Water Supply.*—The work was sanctioned by the late Baroda Government. The work of R. C. C. Tank, etc., was completed and other works were in progress. Nearly half of the works were completed by the close of the year 1950-51.

31. *Kalol Water Works.*—This was one of the late Baroda Government works. The work of R. C. C. Overhead Tank, pipe laying and R. C. C. Underground Sump was in progress and the works were completed to about 60 per cent.

32. *Amreli Water Supply.*—The works have nearly been completed and the water was being supplied to the public through 7 stand-posts. The work of constructing additional stand-posts was in progress.

33. *Improvements to Sewage Disposal work in Baroda City.*—The civil work was completed and the machinery was being fitted up.

34. *Bdmangam Water Works.*—The works were progressing rapidly. The Engine room was completed.

35. *Kandari Water Works*.—An appreciable progress has been made. The Engine House was completed and laying pipe line was started.

36. *Pilwadi Water Works*.—The scheme has almost been completed. Only sluice valve chambers were to be completed. Pumping machinery was awaited.

37. *Ladol Water Works*.—The work of Engine room was nearly completed.

38. *Sokhada Water Works*.—The work of R. C. C. Overhead Tank was started late and only excavation of foundation was done.

39. *Additional Drainage lines at Visnagar*.—Most of the materials required for this work were received. The work of laying drainage line was started.

40. *Construction of experimental well in connection with Kherali Water Works*.—The work was completed.

41. *Special Repairs to Vadnagar Feeder*.—Diversion work was finished at the first stage. The remaining work was in progress.

In addition to the above works, the Public Health Circle had to attend to the works of water supply and drainage arrangements for the various Relief Camps for displaced persons at the following places:—

(1) Kalyan ; (2) Mulund ; (3) Powai ; (4) Thana (Akbar Camp) ; (5) Kurla (Narsi Seva Sadan) ; (6) South Deolali ; (7) Pimpri ; (8) Visapur ; (9) Uruli Kanchan ; (10) Madh Island ; (11) Chembur and (12) Kolhapur (Gandhi Camp, Valivade).

GOVERNMENT CENTRAL WORKSHOP AND TRAINING CENTRE, DAPURI

The workshop continued to carry out repairs to tools and plants and machinery as usual. The nature of works carried out at the workshop included:—

(1) Repairs to and manufacture of broken parts of tractors, which were required for ploughing for "Grow More Food Campaign". (During the years 1945-46 to 1947-48).

(2) Sewage churning boxes for the Military Authorities, gun metal and C. I. troughs complete with balancing levers for beater rolls and hand operated concrete mixers (during the year 1945-46).

(3) Manufacturing and fitting of water tanks on motor chasis. (During the year 1946-47).

(4) Manufacturing of hydraulic instruments of various types.

(5) Grill work for windows. (During the year 1946-47).

(6) C. I. Shift Collars for 18" diameter C. I. Pipes and 5' × 4' C. I. Sluice Gates. (During the year 1946-47).

(7) 3" to 30" diameter cast Iron Specials, such as Tees, Reducers, Crosses, Bends, etc., were manufactured for the improvements to different water works.

(8) Under guidance of Mr. Bohus, Hungarian Engineer, the following machines were manufactured during the year 1948-49:—

(a) Pipe Making Machine for making W. I. pipes from M. S. Plates. This experiment however was not completed.

(b) One Power Press.

(c) Wire netting machines for different wire meshes.

(d) Raspador Machine.

(9) The work of fabrication of spans of warren girders for Savitri River was completed during the year 1950-51 and for Goma River was in progress.

(10) Repairs to Motor Trucks, received from the Disposal, were carried out during the years 1949-50 and 1950-51.

(11) Two 14" diameter Foot Valves were manufactured in the year 1948-49 for Government Water Works, Poona.

(12) Eight Gas Retorts were manufactured during the years 1949-50 and 1950-51, for the Principal, College of Engineering, Poona.

(13) The work of Ferry Boat for the Executive Engineer, Satara Division, was completed in the year 1949-50.

(14) Four Saucers of chemical cast iron were manufactured for the High Explosives Factory, Kirkee, during the year 1950-51.

(15) Besides this, general type of work, such as "V" Knotches, Hook-gauges, Rahats, Repairs to Oil Engines and Pumps was also carried out. Repairs to Road-Rollers belonging to the Public Works Department, were also carried out.

The classification of the work received from the various Departments during the six years under review, was as under :—

Department	1945-46	1946-47	1947-48
	Rs.	Rs.	Rs.
The Public Health Engineer to Government, Poona ..	88,952	98,423	80,593
Military Department	57,977	15,800	5,203
Repairs to Road Rollers (General	30,125	49,262	51,270
Asbestos Cement Limited	Nil.	2,612	10,112
Repairs to Rollers Released from the Defence Department.	Nil.	14,500	3,250
Total Castings—Iron Castings	264 tons.	143 tons.	130 tons.

Department	1948-49	1949-50	1950-51
	Rs.	Rs.	Rs.
Public Health Engineer's Circle	1,51,238	1,69,015	3,87,695
Military Department	7,107	9,107	16,827
Repairs to Road Rollers (General)	45,274	71,507	66,215
Repairs to Road Rollers Released from the Military ..	18,750	....	....
Asbestos Cement Limited	8,442	4,019	5,026
Director of Central Water Ways Irrigation and Navigation Research Station.	17,712	3,700	3,259
Total Iron Castings	199 Tons.	265 Tons.	291 Tons.

The position of the workshop during the period under review is summarised as under :—

Year.	No. of work orders.		Value of the work done.	Profit earned (approximate).
	Opened.	Closed.		
			Rs.	Rs.
1945-46	688	699	2,60,000	10,000
1946-47	530	480	2,68,000	16,000
1947-48	425	437	2,45,644	18,000(Loss)*
1948-49	550	540	3,96,884	30,000
1949-50	675	625	7,60,970**	98,000
1950-51	674	669	5,65,109	40,000

*The net loss of Rs. 18,000-11-3 and the very negligible work in hand of Rs. 3,116 by March end of 1943 is mainly due to the complete close down of the workshops due to strike for a month and a half especially at a time when the workshops are usually very busy, i.e., November and December. In addition to this, establishment charges have increased by about Rs. 6,000 due to the revision of pay scales of the establishment and the payment of dues in that respect.

**Includes Rs. 1,05,040 the cost of 25 trucks purchased from the Disposals.

MECHANICAL SECTION

The Mechanical Section under the Public Health Engineer to Government inspected several pumping plants and machinery at different places and also advised on all mechanical matters, to the various local bodies as usual. The following important works had to be attended to, as emergency works, during the year 1950-51 :—

(1) *Pumping at Krishna Canal near Khodshi Weir.*—Due to the breach in Khodshi Weir by heavy floods, the work of pumping out irrigation water from the river into the canal was taken up immediately and carried out as an emergency measure. The work was carried out successfully and speedily and a good amount of Rabi and Perennial crops worth about Rs. 30,00,000 were saved thereby.

(2) *Taraporewalla Aquarium, Bombay.*—The Public Health Engineer to Government was called upon to design the purification plant and circulating system for the Taraporewalla Aquarium. This work was later decided to be executed by the Executive Engineer, Presidency Division, Bombay, under general direction of the Public Health Engineer to Government. Despite various difficulties the work of the Aquarium was pushed up with vigour and speed and the Public Health Circle made valuable contribution towards it by giving advice and guidance to the Executive Engineer, Presidency Division, Bombay, and installing the machinery at the Aquarium.

BORING SECTION

The work on the mechanical side of the Public Health Circle has vastly increased especially due to post-war reconstruction work, for which 50 boring machines were purchased since the time of expansion of the Public Health Branch to a full Circle. These machines were engaged for taking bores for Village Water Supply and bridge and dam sites.

The work of taking bores for drinking water in a number of places in the scarcity areas in Ahmedabad and Banaskantha Districts, during the two years 1948-49 and 1949-50, deserves special mention.

The work of taking bores for foundation, exploration work of bridges and dams is on an increased scale ; as the Public Works Department officers are taking increasing advantage of the Boring Section and result achieved, have greatly helped these officers in finalising foundation works.

ELECTRICAL

ELECTRIC LICENSES

The new licenses granted during the period under review, are :—

- (1) The Sirsi Electric License, 1949.
- (2) The Dahanu Road Electric License, 1949.
- (3) The Kapadwanj Electric License, 1949.
- (4) The Kheti Sahayak Vidyut (Electric) License, 1950.
- (5) The Dwarka Electric License, 1950.

As a result of the merger of States in the Deccan and Gujarat, forty electrical undertakings in those States have come under the administrative control of Government. The total number of centres where electricity is available, rose from 66 to 138 during the period of six years under review.

LEGISLATION

(i) *The Bombay Electricity (Emergency Powers) Act, 1946.*—This Act was enacted to enable Government to control the supply, consumption, distribution and use of electrical energy in the Province of Bombay after the expiry of the Defence of India Rules under which such control was formerly exercised. The measure was considered necessary in order to maintain the supply and secure the equitable distribution of electrical energy. The duration of this Act was for a period of three years from the 1st October 1946.

The old Bombay Electricity (Emergency Powers) Act, 1946, did not contain any provision for the regulation of the supply of electricity and the period of work in respect of industrial and other consumers. As it was felt necessary to have power for these purposes in the case of undertakings whose generating capacities had reached their maximum, the Bombay Electricity (Emergency Powers) (Amendment) Act, 1949, was passed in order to make provision for such powers and also to incorporate certain other amendments which were considered necessary for the smooth working of the Act. The amending Act also provided for the continuance of the old Act, which was to expire on the 30th September 1949.

(ii) *The Bombay Electricity (Surcharge) Act, 1946.*—This Act came into force from the 1st October 1946 and it was to be in force for a period of three years. The Act replaced the Bombay Electricity Supply (Licensed Undertakings War Costs) Order, 1944, and enabled Government to authorize an electricity undertaking to levy surcharge on the charge for the supply of Electrical energy. The continuance of surcharge was considered necessary in view of the fact that though war had ended, the circumstances which led to the levy of the war costs surcharge during the war, continued to exist.

The Bombay Electricity (Surcharge) Act, 1946, expired on the 30th September 1949. As a result of the expiry of this Act, Government issued a press note on the 10th December 1949, which explained vis-a-vis the Electricity (Supply) Act, 1948. The companies which desired a revision of the rates prevailing on the 30th September 1949, or of the maxima fixed by the license, were accordingly advised to apply to Government for the appointment of Rating Committees. In response to this, Government received several applications from the licensees for constitution of Rating Committees to examine their respective charges for the supply of

electricity. Government has so far constituted Rating Committees in respect of 25 licensees. Reports in respect of five Rating Committees have so far been out by the close of the year 1950-51.

ELECTRICITY DUTY

The electricity duty first imposed by the Bombay Finance Act, 1932 and subsequently enhanced in respect of certain areas by the Bombay Finance Amendment Acts, 1938 and 1939, continued to be in operation during the period under review. The amount of this duty realised during the period is given as under :—

Year.					Amount of Electricity duty realised.
					Rs.
1945-46	...	...	...	...	53,53,437
1946-47	...	...	...	...	63,49,125
1947-48	...	...	...	...	60,42,451
1948-49	...	...	...	...	80,35,319
1949-50	...	...	...	...	1,47,84,996
1950-51	...	...	...	...	1,82,98,793

The total expenditure that was incurred under the different fund heads during the three years under review, in the Electrical Circle, is given below :—

Items of Expenditure.	Expenditure during the three years.		
	1945-46.	1946-47.	1947-48.
	Rs.	Rs.	Rs.
(1) New works including additions to the existing installations	2,77,394	2,26,658	4,76,574
(2) Repairs (including special repairs)	2,69,428	2,86,074	3,37,595
(3) Tools and Plant	9,400	342	8,948
(4) Grant-in-aid	1,136	8,465	302
Total	5,57,358	5,21,539	8,23,419

Items of Expenditure.	Expenditure during the three years.		
	1948-49.	1949-50.	1950-51.
	Rs.	Rs.	Rs.
(1) New works including additions to the existing installations	12,85,792	9,52,757	12,53,657
(2) Repairs (including Special Repairs)	5,65,711	6,86,009	7,58,133
(3) Tools and Plant	5,367	18,278	8,278
(4) Grant-in-aid	274	306	223
Total	18,57,144	16,57,350	20,20,291

The total revenue realised during the six years under review under all fund heads shown as under :—

Year.						Total revenue realised.
						Rs.
1945-46	...	...	...	...	...	4,91,571
1946-47	...	...	...	...	...	4,94,917
1947-48	...	...	...	...	...	5,63,914
1948-49	...	...	...	...	...	6,42,680
1949-50	...	...	...	...	...	7,01,032
1950-51	...	...	...	...	...	8,84,544

The electric installations in the Relief Camps at the following places were in charge of the Electrical Circle, for maintenance :—

(1) Chembur, (2) Mulund, (3) Kalyan, (4) Powai, (5) Kurla (Nari Seva Sadan), (6) Thana (Akbar Camp), (7) Madh Island, (8) South Deolali, (9) Lake Beale, (10) Kapsewadi, Pimpri and (11) Valivade (Kolhapur).

The revenue realised and the expenditure incurred on the following schemes is shown as under :—

	1945-46.		1946-47.		1947-48.	
	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Bhatgar Hydro-Electric Supply Scheme ..	26,910	14,271	35,122	15,403	48,847	9,945
(2) Ambernath Electric Supply Scheme ..	62,886	47,784	56,267	42,043	58,316	41,279
(3) Hubli Electric Supply Undertaking ..	61,330	1,02,679*	1,16,216	53,108	1,44,004	69,230

* A new 150 kw diesel engine set was erected.

	1948-49.		1949-50.		1950-51.	
	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Bhatgar Hydro Electric Supply Scheme ..	58,132	14,669	66,620	18,054	66,617	17,258
(2) Ambernath Electric Supply Scheme ..	62,410	39,814	63,006	41,350	57,217	42,862
(3) Hubli Electric Supply Undertaking ..	1,57,306	1,08,552	1,95,432	1,14,004	2,66,231	1,64,174

Electric Installations in the Merged States.—The electric installations in the Government buildings in the merged States were in charge of the Electrical Circle for maintenance.

The State-owned Power Houses at the following places, which were also in charge of this Circle for maintenance and running, were transferred to the Electrical Commissioner with the Government of Bombay, with effect from the 1st March 1950.

(1) Bansda, (2) Chhota-Udepur, (3) Santrampur, (4) Varsoda, (5) Dharampur, (6) Rajpipla, (7) Baria, (8) Mansa, (9) Radhanpur, (10) Janjira.

The power house at Jawhar was transferred to the Electric Grid Department from December 1950.

Vijapur Power House.—This Power House was started by the ex-Baroda Government in connection with the "Grow More Food Campaign", and was subsequently taken over by the Electrical Circle in August 1949. The power house supplies electrical energy to the tube wells for pumping water for irrigation purposes. One 180 B.H.P. generating set estimated to cost Rs. 77,000, which was ordered by the former Baroda Government in the year 1947 for the power house was received and installed in the year 1950.

A graph showing the units of electricity sold, is included at the end of this report.

ELECTRIC GRID SCHEMES

The Electric Grid Department has been functioning since 1944. When the end of the war seemed near, Government in consonance with the recommendations made by the National Planning Committee in 1940 under the Chairmanship of Shri Jawaharlal Nehru, created this Department with the following objects:—

- (1) to rationalize the generation of electricity by generating it at a few selected stations having natural advantages,
- (2) to make available progressively large supply of electricity at low rates and
- (3) to bring electric energy within the reach of a progressively increasing number of the urban and rural population.

This Department is also charged with the general duty of promoting the co-ordinated development of the supply of electricity within the Province in the most efficient and economical manner, with particular reference to such development in areas not at present served by any licensee. Its main activities are:—

- (1) to investigate, plan and execute Hydro and Thermal Electric Power Schemes and establish Grid Systems in regions which tend themselves to such developments economically;
- (2) to establish small diesel stations in isolated townships which have some cottage industries and which cannot within reasonable time be served from Grid lines and
- (3) to promote rapid development of the use of electricity by agriculturists and cottage and small scale industrialists especially in rural areas by assisting them financially in acquiring utilisation equipment on hire purchase terms.

Despite the difficulties and delays experienced in securing requisite materials transport facilities and experienced technical personnel, the Electric Grid Department made alround progress during the six years under review, in the execution of the various schemes undertaken by it. The progress made in respect of the various schemes is detailed below.

I. NORTH GUJARAT ELECTRIC GRID SCHEME

The scheme is estimated to cost about Rs. 251 lakhs. Main Sub-stations are sanctioned at Ahmedabad, Barejadi, Nadiad, Anand, Baroda and Kalol. Construction of the 66/110 KV transmission line was approved. The line was energised and the North Gujarat Electric Grid Scheme was inaugurated by the Honourable Minister, Public Works Department, on the 15th February 1951. Stringing of the second circuit of the line was completed except the end spans.

The layouts of the Ahmedabad and Baroda Receiving Stations were approved and were put into commission from the 15th February 1951. At other sub-stations erection of the first stage equipment was started. Construction of sub-station buildings, foundations and trenches for equipment was in progress at Ahmedabad, Baroda, Nadiad, Anand, Kalol and Barejadi and was carried to the finishing stage by the end of the period under review. Construction of residential buildings at the above sub-stations was also in progress. Construction of the telecommunication line between Ahmedabad and Baroda was completed. Erection of switchgear, other electrical equipment, structures and transformers was completed at Ahmedabad and Baroda and was progressing at Nadiad and Anand. Water supply arrangements, drainage system, R. C. C. elevated reservoirs were constructed at the Major Sub-stations and were in progress satisfactorily except at Nadiad, where the delay was due to non-availability of steel. Construction of bore-wells was completed at Nadiad and was in progress at Kaira.

Final surveys of distribution lines in Kanjari, Uttarsanda, Chaklasi, Vadtal in connection with the first stage distribution (Kaira District) were completed. Surveys for distribution lines for Kaira and Mehmedabad towns were also completed. Detailed estimates for the scheme (Distribution 2nd stage), comprising three sections, viz., (i) Nadiad-Kaira-Mehmedabad, (ii) Nadiad-Umreth and (iii) Anand-Borsad were submitted to Government for sanction. The line surveys for H. T. consumers at Baroda and Barejadi, as well as those in the former Baroda State territories, Petlad and Kalol, were made. Pole schedules for all the H. T. consumers were finalised and the erection work was in progress.

Erection of switchgear, isolators and cable laying work at Baroda was completed and initial power supply to the Baroda Municipality was commenced on the 15th February 1951. Erection of 11 KV feeders for the New India, Dinesh and Jagdish Mills at Baroda was in progress. Erection of 11 KV switchgear at the Kalol Receiving Station and the Mills' sub-stations was in progress.

II. SOUTH GUJARAT ELECTRIC GRID SCHEME

This Scheme is estimated to cost about Rs. 321.3 lakhs and it comprises construction of sub-stations at Utran, Navsari, Billimora, Bulsar, Surat and one on the Tapti River near the Power Station.

The main Power House Building including the workshop was nearly complete. The cooling tower was completed. Most of the allied buildings were also ready.

The colony buildings were nearly completed. Water supply and drainage arrangements were completed.

The Railway siding for bringing heavy machinery from Utran Railway Station to the Power House Side was constructed by the Bombay Baroda and Central India Railway (now Western Railway) for this Department and is well maintained.

Construction works in respect of Raw-water Reservoir, Percolation well, Jack-wells, unloading platform, Post-office building, canteen, co-operative stores, permanent staff quarters of different types and work in connection with the sewage disposal plant were completed. Boiler and turbo-alternators' foundations were completed. Steel-work to the buildings to house Boilers and Turbo-alternators was completed.

Most of the machinery for the Turbo-alternators sets, Boilers, Coal and Ash handling Plant, condensers, pumps, pipes, etc., as well as Switchgear, part of main and control cables, turbine-house crane, transformers, Railway-weight bridge were also received. Most of the work-shop machinery was fitted and put into operation. Erection work of the Boilers was completed to the extent of about 45 per cent. Condensing plants were placed in their final position and L. T. Distribution work at the Power Station was completed.

Land for the Tapti Sub-station sites for the sub-station at Navsari and Billimora were being selected. Revised estimates for sub-stations at Utran, Surat, Tapti, Navsari, Billimora and Bulsar were being prepared. The layouts for all the sub-stations were finalised. Orders were placed for transformers and sub-station equipment, summation current transformers, trivectormeters and printo-meters. The Scheme is expected to be completed and to commence supply by the end of the year 1953.

III. THE JOG-KARNATAK ELECTRIC GRID SCHEME

The Government of Mysore has agreed, after negotiations, to make available for the Government of Bombay a minimum of 10,000 kW of electric power off Jog Power House and 1500 kW of electric power off Harihar Station, in consideration of the consent given by this Government for the development of hydro-power at Jog. This Scheme is based and designed on the transmission and distribution of the above block of power from the Mysore Government. The proposals to take up the Scheme were approved in July 1949.

The Scheme comprises :—

(1) Construction of transmission lines (i) from Jog to Hubli and Dandeli, (ii) from Hubli to Gadag and Harihar to Byadgi, (iii) 21 miles of 11 KV lines to sub-stations at Dharwar and Haveri and (iv) several miles of rural distribution lines in this area.

(2) Construction of six sub-stations to distribute power derived from the Jog Power House, at Sirsi, Dandeli, Hubli, Gadag and Dharwar.

(3) Construction of a step-down sub-station at Harihar for transmitting power to Ranibennur, Byadgi and Haveri.

The survey work in connection with the Scheme was in progress and was almost completed. Estimates for survey, tools, plant and transport equipment were approved by Government. All sub-station sites were selected and preliminary layout plans of all the sub-stations were prepared. The order for sub-station equipment was placed. The Project Report was submitted to Government for administrative approval.

IV. THE BOMBAY STEAM POWER STATION (CHOLA POWER STATION SECOND EXTENSION) SCHEME

In order to relieve the acute shortage of power in the area served by the Tata Hydro Companies, the Government of Bombay decided on the extension of the existing Steam Power Station of the Great Indian Peninsula Railway (Now the Central Railway) at Chola near Kalyan by installing three extra generating units of 18,000 kW each.

During the year 1950-51, tenders for steam generating equipment and turbo-alternators and electrical equipment, etc., were invited. Most of the raw materials required were purchased and manufacture of steam-generating equipment was started. Excavation of power house foundation was started in March 1951. The fabrication of steel work was in progress. Sheet steel piles were ordered from England and had arrived at site.

The scheme has been scheduled to be completed by January 1953.

V. DIESEL NURSERY AND RURAL ELECTRIFICATION SCHEMES

It was decided to supply power to small isolated town-ships and villages which have some cottage industries and for which it was not found practicable to supply power from the main Grid system, either by establishing small diesel stations or by obtaining bulk power from the nearest licensees' generating stations wherever possible. Such schemes are referred to as "Nursery Schemes". Under the Diesel Nursery and Rural Electrification Schemes undertaken by the Electric Grid Department, power supply will be effected, at present, to 27 small towns and 32 villages in the various districts of the State.

(i) Electrification of the towns of Ratnagiri, Chiplun, Malvan and Vengurla in the Ratnagiri District.

The power houses at Vengurla, Ratnagiri, Chiplun and Malvan commenced working since 30th November 1949, 17th February 1950, 4th June 1950 and 9th September 1950, respectively. The work of fixing lightening arresters and safety devices was in progress during the year 1950-51, at all the four stations.

(ii) Electrification of the towns of Islampur and Peth in the Satara District.

Erection of power house machinery was completed, tests on machinery were taken, and the power house at Islampur commenced working with effect from the 22nd December 1950. Power supply at Peth was started during the third week of January 1951.

(iii) Electrification of ten villages in Bulsar Taluka.

Receiving Station was completed in all respects. Sites for office and stores buildings were selected. Supply of power to the West section of Bulsar, comprising villages Tithal, Segvi, Bhagdawada and Kosamba, commenced from the 7th February 1951. The work at the North section was in progress.

(iv) Electrification of twenty-one villages in Satara Taluka.

Construction work on office and stores buildings at Godoli was completed in all respects. The erection of transmission and distribution lines was completed to the extent of 50 per cent. The work in the four villages of the Atit section was also completed in all respects and the work in other villages was in progress.

(v) Electrification of the towns of Ilkal, Hungund, Amingad, Sulebhavi and Gudur in the Bijapur District.

Acquisition of site for the Power House building at Ilkal was almost complete and arrangements were being made to take possession of the land. Estimate for revised administrative approval for the Scheme was under preparation. Schedules showing overhead line materials for transmission and distribution lines were complete.

(vi) Electrification of the towns of Guledgud and Kamatgi in the Bijapur District.

Tenders for the construction of the Power House building at Guledgud were received. Detailed estimates of the Scheme were submitted to Government for revised administrative approval. Orders for Diesel Electric Plant and equipment were placed. Indents for materials required for transmission and distribution lines were placed. Schedules showing the overhead line materials were finalised and drawing showing the pole positions for transmission and distribution lines at Guledgud and Kamatgi towns were also completed.

(vii) Electrification of the towns of Hukeri, Sankeshwar, Chikodi, Konnur and Gokak in Belgaum District.

(viii) Electrification of the towns of Bailhongal in Belgaum District.

(ix) Electrification of the towns of Dharangaon, Erandol and Parola in East Khandesh District.

Arrangements were complete to take possession of the sites for the power houses for the above Schemes. Designs, drawings and estimates for the Schemes were prepared and the detailed estimates therefor were under revised administrative approval of Government. Orders for the plant and equipments were placed. Schedules showing the overhead line materials and drawings showing the pole position for electrification of most of the towns under the above schemes were completed.

VI. SCHEMES UNDER INVESTIGATION

(a) *The Koyna Hydro-Electric Scheme*

This Scheme as contemplated visualises the impounding of the waters of the Koyna River by a dam and diverting the stored water through tunnels and penstocks to turbines to drive generating units for development of electric energy.

In view of a large demand of power for lift irrigation, a still larger one for the Bombay area and the prospects of development of indigenous industries in the central part of the Bombay State, the scheme has been planned and the Project Report was submitted to Government in June 1950, to meet the combined power demands of irrigation and industry, with an installed capacity of 420,000 kW (seven units of 60,000 kW each, of which one will be a standby). The firm continuous power supply capacity of the power house was estimated at about 246,000 kW after reservation of the required quantity of water for irrigation purpose. The power will be made available to the Bombay area as well as to the districts of Ratnagiri, Satara, Bijapur, Sholapur, Poona and Thana.

The work includes a concrete dam 380 feet high, a tunnel about 13,000 feet long and suitable penstocks to the Generating Station, where an average head of 1600 feet could be obtained to provide a firm power capacity of about 360,000 kW. The transmission system will include 245 miles Extra High Tension lines of 220 KV to Bombay-Kalyan area and to Miraj via Karad, 220 miles of 110 KV to Almati and Sholapur areas and about 500 miles of distribution lines of 33 and 11 KV.

Due to the financial stringency, Government decided that the project should be developed in stages and that the first stage should be worked out to supply power to the Bombay area only. In the meantime a comparative study was made for an underground power house in preference to surface one and finding the former economically better and technically superior, a further report was submitted to Government in December 1950 for the first stage of the Project with an underground power house having an installed capacity of 180,000 kW, estimated to cost Rs. 44 crores. In this scheme the reservoir dam was to be constructed for a full section but only up to the height required for a storage for about 360,000 kW at 70 per cent. load factor.

Later a Committee of experts was appointed in January 1951 to examine and recommend the most suitable type of dam and power house and the stage construction of these works. The Committee was in favour of stage construction, an underground power house and a concrete dam, either with solid or hollow concrete, masonry or earth flanks as may be found most economical. The estimates for the first stage of the project were accordingly revised to about Rs. 35 crores. The matter is being studied further in greater detail and final report in the matter was being awaited.

Detailed exploratory field work and hydrological studies were continued. Other investigations in respect of construction materials planning and layout of access roads, staff quarters and other amenities, water supply, drainage, etc., were carried out and being continued. The Project is expected to take about six years from the date of sanction to the time of putting the first generating unit into commission.

(b) *Kalinadi Hydro Electric Scheme*

An estimate for Hydrological observations in connection with this Project was approved. But owing to the financial stringency the work has been temporarily postponed.

VII. SCHEMES UNDER EXECUTION, ETC., IN THE MERGED STATES AND UNDER THE ADMINISTRATIVE CONTROL OF THE ELECTRIC GRID DEPARTMENT.

(a) *Baroda.*

(i) The Post-War Reconstruction Committee of the former Baroda State had recommended a 5 to 7 year programme of works for the development of electric power in the State territories. The works recommended now form part and parcel of the North Gujarat Electric Grid Scheme.

(ii) Extension of the Gamdevi Power House.

All the civil engineering works, such as construction of an extension room, engine foundation blocks, cable ducts have been completed. Transformers were shifted to the new transformer house.

(b) *Kolhapur.*

(i) *The Radhanagari Hydro Electric Project.*—The Scheme, as designed and sanctioned by the former Kolhapur Government, contemplates a masonry dam of about 140 feet high above the deepest foundation and a power station with an installed capacity of 4,800 kW at Radhanagari. The Scheme was planned for irrigating

about 10,000 acres of land and supply of electricity to Kolhapur and a few villages along the proposed transmission line route from Radhanagari to Kolhapur. The Scheme was sanctioned by the late Kolhapur Government in the year 1946 at an estimated cost of Rs. 161·50 lakhs. This estimate was revised to Rs. 245·78 lakhs, in view of the increased cost of machinery and equipment and of installation thereof and additions and alterations in the main Project itself.

The construction of the dam was in progress and the work was almost completed. During the year 1950-51, excavation for foundation of the dam on the North Flank, was deepened for a depth of 40 feet and widened. The dam masonry was raised from 800 to 2,800 chainage. Five sluice gates (strong type) of size 18'×9'×8' were located in the body of the dam. The work of constructing vents for the gates was completed and all the five gates were fixed. The work of constructing guide and training walls was taken up to prevent foundation of sand bars due to joining of three currents at the dam and a considerable progress was made. Installation of the penstock pipes, including trash rack, thrust and anchor blocks was also completed.

Power House.—The Power House building was completed in all respects. Nearly 90 per cent. of the machinery was received by the end of the year 1950-51. Erection of two generating units was completed and the other two units were under erection. Erection of switch-board and out-door switchyard equipment was almost completed. To facilitate construction works, a telecommunication line from Kolhapur to the Radhanagari works was installed and put into service.

(ii) *The Emergency Irrigation Scheme.*—The scheme was sanctioned by the former Kolhapur Government at an estimated cost of Rs. 9,68,000. The scheme originally sanctioned was completed as follows:—

- (a) Erection of a power house consisting of 3 diesel generating sets of 270 kW capacity each, two similar sets were also added for supplying power to industries, etc.
- (b) Running of 11 KV lines between Kolhapur and Shirol a distance of 27 miles.
- (c) Erection of 11 KV/400 V transformers structures 39 out of 44.
- (d) Erection of 39 pumping sets out of 44.

The Scheme is mainly undertaken for irrigation purposes under the "Grow More Food Campaign". Several proposals for expounding the Scheme and increasing the load were submitted to Government during the year 1950-51.

(iii) *The Kolhapur City Conversion Scheme.*—This Scheme was sanctioned by the former Kolhapur Government at an estimated cost of Rs. 1,03,316, for the work of conversion of the eastern portion of the City Supply from D. C. to A. C., as well as for compensation payable to the Kolhapur Electric Supply Company on account of taking over their serviceable materials for the work. Fresh proposals were submitted to Government.

(c) *Control over the Power Houses in the merged States.*

In addition to the above schemes in Baroda and Kolhapur States, control of the thirteen power houses in the merged areas of the other States has been taken over. These power houses are at:—

- (1) Chhota Udaipur, (2) Rajpipla, (3) Himatnagar (Idar State), (4) Radhanpur, (5) Dharampur, (6) Varsoda, (7) Mansa, (8) Santrampur, (9) Devghad-Baria, (10) Banada, (11) Janjira, (12) Jawhar and (13) Gandevi (Baroda).

Nearly all these power houses are in a bad state of repairs and the plant capacity is inadequate. Proposals for renovation of these power houses, plants and distribution systems whenever necessary, were under consideration.

Railways.

The Railways situated within the State of Bombay are not administered by this Government, but are under the general control of the Railway Board.

The Bombay, Baroda and Central India Railway (now Western Railway) completed doubling of line in the following sections of Anand-Barejadi in the year 1949-50 :—

- (i) Kaniy-Barejadi.
- (ii) Nadiad-Gothaj.
- (iii) Gothaj-Mehmedabad.
- (iv) Anand-Boriavi.

The Boriavi-Nadiad section in the year 1950-51.

Lines under construction.—The progress of lines under construction during the period under review is given below :—

I. Bombay, Baroda and Central India Railway (now Western Railway).

(a) *Anand-Barejadi Doubling.*—The work commenced in January 1949 and was completed in 1950-51.

(b) *Deesa-Bhilandi-Gandhidham section.*—The construction work on this section was started in January 1950 and 93.39 miles of this section fall in this State. During the year 1950-51 almost all the land required for this construction was acquired. About 93 per cent. of earthwork in embankment was completed. Work on bridges was in progress, and linking of track was completed from miles 3-70.

(c) *Vijapur-Ransipur Railway Construction (M. G.) 14.92 miles.*—This work was sanctioned by the Government of India in 1949. In order to provide famine relief only earthwork was done in the year 1949-50; further work was postponed indefinitely after the merger of the Baroda State.

(d) *Varetha-Nathijar Quarry Siding (5.95 miles).*—The construction was started in February 1951. This is meant for store and ballast traffic only.

II. Great Indian Peninsula Railway (now Central Railway).

Though no distinctive new lines were under construction in 1948-49, some new diversions were being constructed on the Bhore and Thull Ghats in connection with the removal of infringements, which consisted of widening of the distance between track centres. The entire work of removal of infringements on the Bhore Ghats (between Bombay and Poona) was completed in May 1951.

Surveys of the following works were undertaken by the various Railway Administrations during the period under review.

I. *Bombay, Baroda and Central India Railway (now Western Railway).*

In the year 1946-47 the surveys of—

(a) the restoration of the Vasad-Kathana Branch line and

(b) Bulsar-Dharampur Railway project were undertaken. However, the traffic survey of the proposed extension of the Bulsar-Dharampur Railway to Nasik, undertaken by the Bombay, Baroda and Central India Railway was held in abeyance in the year 1947-48, under the Railway Board's orders.

(c) *Bombay Cutch Line Survey.*—Traffic Surveys of the Broad Gauge link from Bombay to Cutch via Viramgam to Kandla port were undertaken in the year 1947-48.

(d) *Kandla-Deesa Railway.*—Field work for the survey of a metre gauge line to connect Kandla and Deesa was started in October 1948 and completed in March 1949. The survey reports of the proposed Railway was submitted to the Railway Board in the year 1949-50.

(e) *Nadiad-Pihij (N. G.) Section.*—Survey was carried out in 1950-51 with a view to connecting Petlad-Pihij (N. G.) line with Nadiad Station.

II. *Great Indian Peninsula Railway (now Central Railway).*

(a) Surveys for the removal of track infringements in the Bhore and Thull Ghats were carried out by the Great Indian Peninsula Railway in the year 1945-46.

(b) *Manmad-Nardhana Railway.*—As part of alignment from Manmad to Jalgaon, the Manmad-Dhulia portion of this project was surveyed in 1892. In 1927, traffic prospects for a line from Manmad to Nardhana via Malegaon and Dhulia were investigated but the proposal was dropped as it was found unremunerative.

As a Post War Reconstruction Programme for Railways drawn up by the Railway Board, in consultation with this Government a preliminary Engineering Survey was carried out, during the year 1946-47. Owing to poor financial returns and also because of the policy of proceeding with projects of national importance only, this project has been dropped for the present.

(c) *Kurla-Karjat.*—This proposal relates to the laying of a chord line between Kurla and Karjat. This would reduce the distance to Poona by about 15·13 miles besides developing the area through which it would pass. During the year 1948-49, all boring operations in both the Thana and Panvel creeks were completed. Field work on both land and marine surveys was also completed. The preparation of the preliminary Engineering and Survey Report and estimates were submitted to the Railway Board in 1950-51.

(d) *Diva-Dasgaon (Panvel).*—The preliminary survey for a B. G. line, 93 miles along from Diva to Dasgaon was sanctioned by the Railway Board in May 1946 as the Bombay Government had moved for its inclusion in the Post War Reconstruction Programme. As this line would also serve a part of the area which would be served by the Kurla-Karjat chord, the Railway Board, in February 1948, desired that a combined survey should be carried out. The field survey was commenced in October 1948 and was completed up to Panvel, 16 miles from Diva in December 1948. In January 1950, the Railway Board advised the Great Indian Peninsula Railway (now Central Railway) that the Central Board of Transport has decided to drop this project. However, the preliminary Engineering Survey Report and Estimates were submitted to the Board in February 1950.

(e) *Kurla-Bandra*.—The preliminary Engineering Survey Report and Estimate were forwarded to the Board in December 1949. This line has been included in the Master Plan for the Greater Bombay Scheme. The decision of the Board is awaited.

5. The total length of all Railway lines in the area of Bombay State open for traffic during the period under review was as follows:—

*For 1945-46**

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total number of miles.
1	2	3	4	5
Bombay, Baroda and Central India Railway ..	540·999	125·385	71·269	737·658
Great Indian Peninsula Railway ..	788·065	....	62·064	850·129
Madras and Southern Mahratta Railway ..	....	587·875	....	587·875
Barsi Light Railway ..	....	....	113·000	113·000
Matheran Light Railway ..	....	....	12·610	12·610
Bhavnagar State Railway ..	....	49·210	8·440	57·650
His Exalted Highness Nizam's State Railway ..	....	27·000	....	27·000
Gaekwar's Baroda State Railway ..	9·970	35·080	96·420	141·470
Total ..	1,339·034	824·550	363·803	2,527·387

*For 1946-47**

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total number of miles.
1	2	3	4	5
Bombay, Baroda and Central India Railway ..	540·999	125·385	71·269	737·658
Great Indian Peninsula Railway ..	788·065	....	62·064	850·129
Madras and Southern Mahratta Railway ..	....	587·875	....	587·875
Barsi Light Railway ..	....	....	113·000	113·000
Matheran Light Railway ..	....	....	12·610	12·610
Bhavnagar State Railway ..	....	49·210	8·440	57·650
His Exalted Highness Nizam's State Railway ..	....	27·000	....	27·000
Gaekwar's Baroda State Railway ..	9·970	36·080	96·420	1414·70
Total ..	1,339·034	824·550	363·803	2,527·387

* The area of the former Indian States (since merged in the State of Bombay) is not taken into account.

*For 1947-48**

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total number miles.
1	2	3	4	5
Bombay, Baroda and Central India Railway ..	540·999	125·385	71·269	737·653
Great Indian Peninsula Railway ..	788·029	....	62·064	850·093
Madras and Southern Mahratta Railway ..	....	698·740	....	698·740
Barsi Light Railway ..	....	....	167·000	167·000
Matheran Light Railway ..	....	....	12·610	12·610
Bhavnagar State Railway ..	....	49·210	8·440	57·650
His Exalted Highness Nizam's State Railway	....	27·000	....	27·000
Gaekwar's Baroda State Railway ..	9·970	351080	964·20	141·470
Total ..	1,333·998	935·415	417·803	2,692·216

For 1948-49

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total.
1	2	3	4	5
Bombay, Baroda and Central India Railway.	549·51	125·89	143·22	718·62
Great Indian Peninsula Railway ..	812·825	....	74·674	887·499
Madras and Southern Mahratta Railway ..	....	722·32	....	722·32
Barsi Light Railway ... ..	....	....	166·58	166·58
Nizam State Railway ..	....	32·26	....	32·26
Total ..	1,362·335	874·47	384·474	2,627·279

For 1949-50.

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total.
1	2	3	4	5
Bombay, Baroda and Central India Railway.	735·40	558·75	579·30	1,873·63
Great Indian Peninsula Railway ..	812·825	....	74·674	887·499
Madras and Southern Mahratta Railway ..	....	722·32	....	722·32
Barsi Light Railway ..	....	....	166·58	166·58
Nizam State Railway ..	....	32·26	....	32·26
Total ..	1,584·315	1,313·33	820·644	3,718·389

* The area of the former Indian States (since merged in the State of Bombay) is not taken into account.

For 1950-51

Railways.	Broad Gauge miles.	Metre Gauge miles.	Narrow Gauge miles.	Total.
1	2	3	4	5
Western Railway*	735.49	558.75	579.39	1,873.63
Central Railway**	812.825	32.26	74.674	919.759
Southern Railway† .. ..	....	722.32	....	722.32
Barsi Light Railway .. ..	....	....	166.58	166.58
Total	1,584.315	1,313.33	820.644	3,718.389

* Formerly Bombay, Baroda and Central India Railway.

** Formerly Great Indian Peninsula Railway. The mileage of the Ex-Nizam State Railway is also included in this.

† Formerly Madras and Southern Mahratta Railway.

TECHNICAL PAPERS

No technical paper was issued during the period under report.

DEVELOPMENT SCHEMES

80—Bombay Development Scheme (Back Bay Reclamation Scheme).

No important works worth mentioned were carried out during the period under report.

A list of members of the Stancing Advisory Committee for the Back Bay Reclamation Scheme is annexed to this report as Appendix X.

INDUSTRIAL HOUSING SCHEME

All the 207 Development Department Chawls at Naigaum, DeLisle Road, Worli and Sewri, which were in charge of this Department, were maintained by this Department as usual. A detailed report on this scheme is published separately.