

D E V E L O P M E N T    P R O G R A M M E

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P R O G R E S S    R E P O R T

for the

Quarter ended 30th June, 1959.

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GENERAL REVIEW

A. FINANCIAL

Expenditure on Development Projects for the quarter ended 30th June, 1959 amounted to \$5.2mn. which, together with the expenditure of \$2.4mn. in the previous quarter, brought expenditure for the year to \$7.6mn. The total expenditure under the 1956-1960 Programme to the end of June was \$66.4mn.

Details of expenditure during the year to the end of June are given in the Appendix to this Progress Report. Drainage and Irrigation (\$3.3), Post Office Telecommunications (\$1.3), Public Works (\$1mn.), Transport and Harbours (\$0.5), Housing (\$0.4), Geological Survey (\$0.2) and Land Development (\$0.2), accounted for \$6.9mn. of the total expenditure of \$7.6mn. for the period 1st January to 30th June, 1959.

The table below shows the rate of expenditure for the two quarters in 1959 with the corresponding figures for 1957 and 1958.

<u>Quarter</u>		<u>1957</u> \$mn.	<u>1958</u> \$mn.	<u>1959</u> \$mn.
January/March	...	2.7	3.1	2.4
April / June	...	4.5	5.2	5.2
		<u>7.2</u>	<u>8.3</u>	<u>7.6</u>

B. WORK PROGRESS

Agriculture: The main expenditure during the quarter went on Jute (\$14,609), Ebini Livestock Station (\$13,140) and Cocoa Trials (\$12,121). The Soil Surveys, Coconut Industry Development and work on the Livestock Station - St. Ignatius continued.

At Onverwagt the construction of two kokers was completed and work on the remaining eight was in progress. Fencing of the Station has commenced.

Regarding the development of cacao, maintenance and propagation continued on all five Stations. The production of plants for the quarter was as follows:-

	Propagated	Basketed	Distributed	On the Harden- ing Floor
Atkinson Field and Botanic Gardens ...	14,520	8,257	9,313	12,933
Providence ...	5,535	3,780	3,310	8,023
La Belle Alliance ...	100	-	-	1,335
Hesororo ...	2,300	893	835	6,205
	<u>22,455</u>	<u>12,930</u>	<u>13,458</u>	<u>28,496</u>

During the quarter a reconnaissance soil survey of the Tapakuma area was carried out. Work on the Vergenoegen and Cane Grove Land Settlement Schemes continued. The Soil Scientist carried out an experiment on blast infected areas on the East Bank Demerara, a report of which was issued. The abnormal weather conditions curtailed experiments at the Central Agricultural Station. At the Livestock Station, St. Ignatius, seven acres of corn were planted during the quarter. 21 Calves were born. At Ebini, 200 acres of Pangola and 18 acres of Pensacola Bahia and Molasses grass were planted. The experiments on planted pastures and pasture development were completed and a report will be published shortly. There were 56 cattle livebirths and 2 stillbirths at the Station during

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the quarter. The clearing of a road and the construction of bridges across the Hosororo Creek were completed.

Good progress was made on work on the development of the coconut industry and the Department of Agriculture found it difficult to supply the farmers' demands for seedlings.

Civil Aviation: Work continued during the quarter on the Kamarang airstrip. The hydraulic system of the TD 9 Crawler Tractor which had broken down in March was repaired and the machine put back on work in May. The blasting of rock formation was completed in April.

Drainage & Irrigation: In the Black Bush Polder area satisfactory progress continued. The sluices at Mibikuri, Yakusari and Lesbeholden, and the main canal in the Yakusari area, except for minor remedial works, were completed; also the bridges at Lesbeholden. The number of labourers employed by the contractors and sub-contractors at the end of the quarter was 1,010 as against 729 at the end of the March quarter.

The shaping of the entire Crown Dam of the Boerasirie Extension Project was completed and work continued on the Canal Heads, Distributaries and Structures. Remedial work on the Boerasirie Creek stop-off was carried out satisfactorily. The High Level Canal leg of the Maripa/Bonasika distributary, 300 ft. of the leg from Main Crown Dam to High Level Canal, 24,000 ft. of the Wales/Georgia distributary and earthworks at No. 2 Canal, and Parika/Orangestein facade were among the works completed during the quarter. Work on the facades on the East Bank Essequibo continued.

In the Minor Drainage and Irrigation Works programme, the earthworks at La Jalousie were almost completed. In the East Demerara area all minor drainage structures were erected. In Essequibo, the Golden Fleece weir and earthworks around the intake were completed.

Six survey parties are now in the Mahaica/Abary/Berbice area collecting information for the Mahaica/Berbice Project.

Finance: Loans made and repayments received by the Credit Corporation during the quarter totalled \$688,960 and \$528,976 respectively.

Forests: The enumeration survey of an area south of the Great Falls, Demerara River, of about 150 square miles, was completed. 16 acres of worked-out Wallaba forest were cleared and planted with pine at Mile 5, Bartica/Potaro Road. The aggregate number of man-days worked was 456.

Geological Surveys: Of the nine parties in the field during the quarter one has returned. Most of the areas covered by field mapping had never been mapped before and a great deal of information was obtained which will be useful in compiling the next geological map of the Colony.

Work on the block of flats in New Market Street continued and the construction of the new laboratory and darkroom was begun. The building of the United Kingdom Atomic Energy Authority's Office in the Geological Survey Department Compound was purchased for use by the Department.

Thirty-four analyses and identifications, forty-seven heavy mineral separations and sieve analyses etc., five hundred and fifty-two thin sections and seven preparations, analyses, assays etc. for other Government Departments and members of the public, were carried out during the quarter; 2,546 books were catalogued, 230 accessions received and 254 books were loaned to members of the staff.

Housing: Work was carried out on developing 61 commercial sites at Campbellville, La Penitence and Ruimveldt. These sites will be sold by tender at a minimum price of \$1.00 a square foot.

At the end of the quarter the housing programme was almost complete and only 54 houses remained to be handed over. The number of houses completed is

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now 3,164. Applications received for rental accommodation now total 5,634 and for hire purchase 3,403. During the quarter 212 houses were allocated for rental and 106 for hire purchase.

Revenue from rents, hire purchase payments and sales of land collected totalled \$235,262.59.

Post Office: The new Georgetown Exchange Building was occupied during the quarter with the workshops and stores being accommodated in it. The electrical lighting and fitting works continued. The installation of the Exchange equipment, trunk, switchboard and power plant continued satisfactorily. Except for flooring and painting, the rural automatic Exchange Buildings at Benab and Mahaica were completed. Work on the buildings at Cove and John and Wales continued. All equipment was installed at the Suddie and Ituni Exchanges.

Public Works: A total length of three miles of surfacing was completed at Friendship/Hope, Land of Canaan, and Garden of Eden, East Bank Demerara. Approximately 3.37 miles of the Bartica-Potaro Road were completed during the quarter. The survey of the Potaro-Lethem road was almost 70% completed.

Approximately 7,000 feet of the Sea Defence earth dam were thrown up between Nabaclis and Strathspey, and 2,000 feet between Mahaica and Mahaicony as far as Fairfield. Good progress was made on the sea defence works in Berbice.

The construction of the new office for the District Commissioner, Vreed-en-Hoop, the workshop at Triumph and the extension of the Forest Department Headquarters continued during the quarter. By the end of it, eight houses for Public Officers were completed while five were under construction.

Work on a 20,000 gallon concrete sump was completed at Best. Construction in progress includes one 20,000 gallon overhead tank each at Vergenoegen/Philadelphia and Onderneeming, and a 36,000 gallon tank at Pouderoyen.

Transport & Harbours: The reconstruction and expansion of the Georgetown/Vreed-en-Hoop Ferry Terminals began during the quarter. Work on the Vreed-en-Hoop Harbours Depot and Launch Station progressed satisfactorily. The construction of the new offices in the locomotive shed was completed. The new ferry vessel "Makouria" which is being built in the United Kingdom is scheduled to be launched in July, 1959. The construction of the other new ferry vessel by Messrs. Sprostons Limited began with the laying of the keel on 18th June, 1959.

Rural Self Help: Grants totalling \$9,158.96 were approved during the quarter for eighteen schemes at an estimated total cost of \$20,063.09. At Mocha the self-help irrigation scheme made good progress.

Social Welfare: The present membership of the Albouystown Y.M.C.A. Club is 250. Full advantage is being taken of the Club's facilities.

Local Government: The Local Government (Valuation of Property) Ordinance was assented to by the Governor on 24th April, 1959. A Bill dealing with the constitution of Local Authorities and election procedure and regulations and another to regulate the financial affairs of local authorities were being prepared.

Amerindian Development: Wells were dug and pumps installed at Massara, Sawarivau and Toka Villages during the quarter. The store at Karasabai was completed and opened for business. Four classes were started one each in sewing, carpentry, domestic training and tailoring in the Rupununi, at Cababuri, at Waramuri and at Wakapau respectively.

I. AGRICULTURE

1. STAFF TRAINING:

The four students who were at the Eastern Caribbean Farm Institute on the 1957-1959 course completed the course successfully and returned to the country. One of them was awarded the "Hotch Sciss Medal" for all round work. They all assumed duties with the Department as Grade II Field Assistants.

Satisfactory reports were received from the Institute on the first year's work of the eight students on the 1958-1960 course.

2. STATIONS:

2. Central Agricultural Station - Inconsistent weather conditions caused all fibre crop trials to be curtailed and the experiments planned had to be postponed. Small scale experiments with fertilisers at Mara were carried out to ascertain suitable soil conditions for jute.

3. Hosororo Experiment Station - Ten acres of forest were cleared and planted in corn, oranges and Kudzu grass. Five acres were prepared for cocoa, immortelle being planted for permanent shade and bananas and plantains for temporary shade - ground provisions were already planted in the area for temporary shade. One thousand banana and five hundred plantain suckers, three acres of yams, one acre of sweet potatoes and one acre of tannias were sown. A further three acres on the hill were prepared for coffee, the three varieties being Liberica, Arabica and Robusta. One hundred and twelve pineapple suckers were planted in a small new area prepared for this purpose.

Buildings: The Cocoa Assistant's house was completed. Three poultry arks, four laying pens, a milking shed (to hold eight cows) and a dairy room were constructed, while the runs and well were fenced.

Equipment: Additional equipment purchased during the quarter were an incubator brooder, poultry appliances and an electric fence.

Water Supply: The entire compound is being supplied with water from a tank on the hill which is filled by means of an hydraulic ram in the Hosororo Creek.

Pasture Development: Four and a half acres of worn out pegasse land were prepared for fodder grass. Planting was suspended until the drainage work is completed. By the end of the quarter five beds of Locuntu grass were planted.

Roads: The construction of the two bridges across the Hosororo Creek and its tributary were completed and a road which runs through the old and new citrus fields to the new cocoa field was cleared.

Livestock: During the quarter the laying flock of thirty five hens produced 2,347 eggs. The trap nesting system was adopted for the testing of individual performances of hens, the eggs of which will be used to provide chicks for distribution in the district. An experiment was carried out to test the liveweight gains of chemically caponised birds.

A pair of large white piglets was received at the Station to serve as foundation stock for a distribution and demonstration unit.

The calves born at the Station were retained for herd replacements.

4. Livestock Station - Ebini - Rainfall of 5.97, 5.6 and 18.86 ins. in April, May and June respectively, provided most suitable conditions for the planting of grass especially pangola which grew rapidly.

Pasture Development: Over two hundred acres of pangola were planted vegetatively. Six acres of pensacola bahia, the seeds which were obtained from the United States of America were well established while

twelve acres were seeded with Molasses grass imported from Puerto Rico.

Experiments in Planted Pastures: The remarkable growth which followed the rains slowed down, presumably due to the depletion of available soil nutrients. Pastures treated with triple superphosphates grew much better than those with basic slag. The experiments on the growth weight changes and reproductive performances of cattle under different systems of management continued.

Cattle: The mean liveweight of the forty-eight steers kept on pangola grass since December/January was over 700 lbs. and those from June/July 445 lbs.

Calving results during the quarter were as follows:-

		<u>Livebirths</u>	<u>Stillbirths</u>
April	...	12	1
May	...	17	1
June	...	27	-
		<hr/>	<hr/>
		56	2
		<hr/>	<hr/>

There were losses of stock as a result of predators and lightning and two calves from suspected occidiosis. Coccidia were found in March and April in faeces from a sample of the cows. The general level of intestinal parasites was however low in the Ebini stock though much higher in the imported Brahmans.

Parakeratosis, suggestive of zinc deficiency, was observed in cattle from time to time and during the quarter the number rose to about twenty. Some of these animals were treated by using zinc sulphate at an early stage while others were kept as controls and treated later. These treatments were either given by injections or orally. In all treated cases there was a rapid response to treatment.

5. Livestock Station - St. Ignatius - During April Mr. A.M. Greenhall, Zoologist, Ministry of Agriculture, Trinidad, spent ten days in the district investigating the vectors of paralytic rabies.

Weather: The long dry season ended on April 14th. Rainfall of 3.06, 5.11 and 16.63 ins. were recorded during April, May and June respectively.

Crops: Seven acres of corn were planted in May. Two experiments were being carried out with this crop, one a fertilizer trial, the other to determine planting distance and variety differences.

Pasture: The long dry season proved a severe test for all the planted grasses under observation viz:- bahia jaragua, dallis, nyle, nadi blue and locuntu, all of which died. The small amount of para grass and wynne grass survived and pangola was the most successful in recovering from the drought. The losses left the Station short of planting material and only twenty-six acres out of a proposed fifty were planted.

### 3. SOIL SURVEYS:

6. The two Agronomists for which provision is made in the Colonial Development and Welfare Scheme for Soil Surveys, Mr. R. Hewson B.Sc. (Hons.) (Noth.), Dip. Agric. Sci. (Cantab.), D.T.A. (Trin.) and Mr. L. Palmer B.Sc. (Hons.) (Lond.), Dip. Agric. Sci. (Cantab.), D.T.A. (Trin.), arrived and will be stationed at St. Ignatius and Kamarang respectively. They will spend one month at the Central Agricultural Station before taking up their postings.

Soil samples of the Vergenoegen and Cane Grove Land Settlement areas were taken during the quarter and these were subjected to laboratory analyses. The reports will be issued shortly.

A reconnaissance soil survey was carried out during the quarter of the area to be drained and irrigated by the Tapakuma Irrigation Project. This area extends along the Essequibo Coast from Zorg-en-Vlight to Somerset/Berks, and is about 30,000 acres. Three major types of soil were found viz: frontland clay, pegasse clay, and pegasse.

Frontland Clay: This type which constitutes most of the area is of very high agricultural value and with an assured water supply could be much more developed. At present it is largely cultivated with rice and to a lesser extent coconuts. The part unused extends from "The Jib" to the Parika area, which is saline due to flooding by the sea as there are no sea defences.

Pegasse Clay: This type which extends westward from the frontland clay is unused due largely to ineffective water control. It seems suitable for cacao and coffee. However, fertilisers and ground limestone would be required eventually, for the successful establishment of these crops. Great care should also be exercised to protect the surface organic layer during clearing by restricting the use of burning. The aluminium content was found to be fairly high in the organic layer, but this is not considered dangerous for either cacao or coffee. Ground provisions may also be grown on this type and, in restricted areas, rice.

Pegasse: The pegasse layer found, seems only about one foot deep which is probably due to annual burning. This type can best be used for pasturage or possibly for ground provisions.

There are other small and restricted areas of white sand as reefs and sandy loams where the reefs are not pronounced. The former type is at present covered with Awara Palms and clearing of this is not recommended. The latter is used for fruit growing and this culture could be expanded.

A more detailed survey of the entire area is being carried out.

7. Employment of a Soil Scientist - Two large field experiments on Blast infected areas on the East Bank Demerara were harvested during the latter half of April and the results analysed. A separate report was issued.

In project SS10/58 the effects on yields of lime, potash and two fungicides (Perenox and Verdesan) were tested. Susceptible variety No. 79 was used. The mean yield from the experiment was 10.5 bags per acre (1 bag = 140 lbs.). The results are shown as percentages of respective controls in Table I below:-

TABLE I

A. <u>Fertilisers</u>		B. <u>Sprays</u>	
Control (10.8 bags/acre)	- 100	No spray (7.1 bags/acre)	- 100
Lime 1 ton/acre	- 84*	Perenox 1 lb./acre, 3 times	- 117
K <sub>2</sub> SO <sub>4</sub> 2 cwt./acre	- 105	" 2 lb./acre, twice	- 118
Lime +K <sub>2</sub> SO <sub>4</sub>	- 97	" 2 lb./acre, 3 times	- 125
		Verdesan 1 lb./acre, twice	- 159+
		" 2 lb./acre, twice	- 177+
		" 2 lb./acre, 3 times	- 186+
		" 1 lb./acre, 3 times	- 196+
	* Difference significant	P = 0.5	
	" " "	P = 0.1	

For fertilisers, only the decrease due to liming was significant. All the Verdesan sprays gave high response but the Perenox treatment also produced significant results.

An autumn crop experiment was laid down on the same site. It was designed to demonstrate the possibility of growing a crop using the combination of the resistant variety and fungicide, and also to test the effect of Mn. and

/Fe. applications .....

Fe. applications.

Project SS11/58 experiment which consisted of testing the effects of (NP), K and Si, in a Blast infected area was harvested in April. Yields were low and very poor in quality. Comparing this with SS10/58 it is evident that no crop can be successfully grown in this area without fungicide. Here too the susceptible variety No. 79 was used. Both (NP) and K decreased significantly (P = 0.05), the yields due probably to increasing susceptibility to blast. Silica in a form of infusorial earth did not produce any significant increase in yields. No interactions reached significance. A table of effects in bags/acre (140 lb. a bag) is given below. There were four replications and a second order interaction was fully confounded:-

Effects

<u>Main</u>	<u>Mean yield 5.3 bags/acre</u>	<u>Interactions</u>
(NP) - 0.59*	SE effects = +0.27	(NP) x K + 0.27
K - 0.67*	P. 0.05 = 0.57	(NP) x Si + 0.22
Si * 0.35	P. 0.01 = 0.77	K x Si -0.35

\* See Table I.  
+

At the Mahaicony/Abary Rice Development Scheme, the experiment with plastic waste as the source of nitrogen progressed slowly due to the unusually dry weather during the quarter and lack of suitable water control for the site of the experiment. There was no response to comparatively heavy application of iron and manganese, which were over imposed on one of the existing long-term experiments. In the micro-nutrients experiment (a continuation of last year's SS12/58 Project slightly altered), treatments were applied on the 13th June and rice was transplanted on the 15th June.

The unusual weather and lack of co-operation from farmers resulted in a loss of some of the experiments on the sites on farmers' land originally chosen for them.

On the East Coast Demerara, of the ten experiments laid down one was abandoned. The majority of the remainder progressed satisfactorily but a few suffered badly during the dry spell. On the West Coast Demerara, two experiments with dry-sown seed progressed satisfactorily, while the remaining four were transplanted. All nine experiments at Essequibo were successfully laid down and were being transplanted. In Berbice, dry weather affected the experiments more than in any other district. All but two of these experiments were dry-sown. About three of the six experiments in the Berbice River area were expected to be lost. In addition to the dry weather, control of stray cattle became difficult and two farmers failed to protect the experiments from damage by such cattle.

It appeared as though the harvest would be late, very dependent on the winter rains. If many more experiments were lost it might be difficult to obtain sufficient data to analyse statistically the reliability of the information obtained. Early observation of the trials showed very strong vegetative response to fertilisers on pegasse and pegassy soil which in some places was greatly increased by liming. On this type of soil there appeared to be no response to nitrogen alone, the stands being poorer than on control plots.

Soil samples from over forty farmers' sites were analysed for N, C, P, K, Ca, Mg, Al and Fe, pH and salt contents. Phosphates values appeared to give little indication of the true picture and experiments were being carried out to find a more suitable method of P determination. Samples were taken from experimental plots at the Mahaicony/Abary Rice Development Scheme to which superphosphate was applied for seven consecutive years. These samples were being analysed for phosphates, iron and aluminium at various depths, and the results were compared with those for similar samples from control plots. Dividing the phosphates into various discrete chemical forms was being used to improve these studies.



4. CROPS:

8. Cocoa Trials - Maintenance and propagation continued on all the Stations. At both Atkinson Field and the Botanic Gardens the clearing, digging and redigging of canals and drains in the trial plot continued. The ground shades in the new fields were reduced considerably since sunlight on the young plants was insufficient. 2,871 cacao pods were harvested and handed over to the Economic Botanist for experimental purposes. The plants at both nurseries were treated with sulphate of ammonia. At Atkinson the young plants were sprayed with 1% urea while those at the Botanic Gardens were dusted with Agroicide 3, to prevent attacks by thrips and aphids. One hundred and two pieces of cacao bud-wood were received from St. Vincent and twenty-seven buds taken. 3,706 square feet of concrete floor were made and a temporary shade built with bamboo laths. Twenty-eight bags of cocoa pods were received from 2 cacao stations from which 692 lb. of wet beans were extracted and were being fermented as a specimen sample for farmers. The manilla hemp planted during the last quarter at Atkinson was doing well.

The plants at Providence were dusted with Agroicide, fertilized with Sulphate of Ammonia in solution, and sprayed at 14-days intervals with ferrous sulphate. Abnormal losses on the drying floor were traced to the source of potting soil. The position was remedied and returned to normal. Four hundred and sixty-eight cacao pods were sent to the Agricultural Officer for a fermentation trial.

In Essequibo, the dry weather affected plants both on the hardening floor and in the field. At Hosororo, 3,688 pods were harvested of which 1,828 were used in the fermentation experiment. The remainder was processed and yielded 250 lb. of cured beans.

9. Jute Investigations - Single rows of *C. capsularis* (BZ 4) and *C. olitorius* (ECR 576) were grown for comparison with *Hibiscus cannabinus* and *Urena lobata* on frontland clay. No results were available. The small scale experiment at Mara was reduced and removed to another site. The aim of this work was to study the complex factors leading to suitable soil conditions for jute. Treatments included application of limestone and farm-yard manure, one ton and fifteen tons an acre respectively.

10. Coconut Development - During the year 7,534 seedlings were distributed, 4,884 in Demerara, 1,450 in Essequibo and 1,200 in Berbice. The seedlings continued to germinate and of the 120,753 nuts acquired, 100,753 were sent to the Central Agricultural Station and the remainder to Berbice. It is estimated that the target of 70,000 seedlings for the year will be realised. Seedlings are being sold to farmers for five cents each. The response from farmers was most encouraging and the Department found it difficult to meet their demands for seedlings. It was planned that a larger number of seedlings will be available for the next distribution in November/December.

The Department also studied the yields from selected mother palms. Fertiliser trials of limestone and NPK mixture were started on the frontland clay and sand reefs.

5. FISHERIES:

11. Onverwagt - Fencing of the Station commenced and the entire width along the foreshore (500 yds.) of the Station was completed.

The Crop Research Officers are developing the 27.6 acres of available high sand reef for the cultivation of suitable crops. Kokers for the two large foreshore ponds which consist of about 19.367 acres were completed and the ponds were being stocked with fish. Work on kokers for the remaining eight ponds continued.

The development of fish culture in the environs (a radius of about ten miles) of the Station was most heartening. There were about 200

/ponds .....

ponds, large and small, in use. The floods and high tides showed the suitability of the area for this purpose and the successful growth of fish was a good example to visitors from the adjacent villages.

## II. CIVIL AVIATION

Work progressed satisfactorily on the Kamarang airstrip despite a breakdown of the hydraulic system of the tractor. The blasting of the rock formation was completed in April. A runway, 1,800' x 75' at one end of the airstrip at Kamarang was first used on 1st April by a Piper Tripacer aircraft. The transportation of aeronautical telecommunications and navigational aids equipment from Wichabai to Georgetown for overhaul was carried out. The equipment will afterwards be used at Orinduik.

## III. DRAINAGE & IRRIGATION

### 1. BLACK BUSH POLDER:

Progress of Work - The three sluices at Mibikuri, Lesbeholden and Joppa were brought into operation and those at Mibikuri and Lesbeholden produced effective drainage. Further excavation was required for the Joppa outfall channel.

Drainage and Irrigation works continued satisfactorily at Mibikuri, Lesbeholden, Joanna and Yakusari. By the end of the quarter, at Lesbeholden only 26% of excavation of proprietors' drains and 14% of timber boxes remained to be completed.

Main Canal: This was completed except for minor works.

Pumping Station: Three engines and two of the pumps were installed.

Roads: Good progress was made on the Lesbeholden and Joppa sections of the intersettlement road.

Bridges: The bridges at Lesbeholden are now completed. Pile casting was completed at Mibikuri.

Contractors' Labour: At the end of the quarter 1,010 Guianese were employed by Messrs. Pauling & Co. and their sub-contractors. The number had reached a peak of 1,200 in May.

### 2. BOERASIRIE EXTENSION PROJECT:

#### Headworks

Earthworks - Main Crown Dam: All shaping was completed and the cut at No. 2 Canal was sealed off. The emergency inlet channel which was made at Warimia to take in tidal water was sealed off. A stop-off was constructed across the old Meten-meer-Zorg intake, and repairs were done to the Boerasirie Creek stop-off.

Structures - The position with the canal heads at the end of the quarter was as follows:-

Maripa/Hubu	...	...	25% completed
Uitvlugt	...	...	Completed.
Stewartville	...	...	90% completed.
Maripa/Bonasika	...	...	15% completed.
Wales	...	...	90% completed.

/Distributaries .....

Distributaries

Earthworks - All work on the "B" Line Feeder Trench was completed during the quarter. The High Level Canal leg of the Maripa/Bonasika distributary, 300 feet of the leg from Main Crown Dam to High Level Canal, and 24,000 feet of the Wales/Georgia distributary were completed. The machine working on the Kent Dam leg of the Ruby/ Boerasirie distributary made slow progress. Work commenced on a cut-off dam between the Weir and the High Level Canal.

Structures - At the end of the quarter the Parika/Ruby Tailwall, Centre Trench Check Weir and the heavy-duty bridges over Salem/Hubu and Maripa/Hubu distributaries were completed. 90% of the work was completed on the Maripa/Hubu and Maripa/Bonasika Tailwalls and the pipe outlet in "C" Line, and 75% of the "B" Line Check Sluice. Work on the Wales aqueduct was suspended pending the construction of the Canal Head.

Drains

Progress made on earthworks to the end of the quarter was as follows:-

- Strik-en-heuvel/Georgia Facade - 7,100 feet dug.
- No. 2 Canal - Completed.
- Parika/Orangestein Facade - Completed.
- "A" Line Drain - Excavation of badly dug sections continued.
- Ruby Proprietors' Drain - Re-digging of badly dug sections.
- Hubabu Drain - The stop-offs were removed and the drain became fully operative.

Structures - At the end of the quarter the position was as follows:-

- Ruby Road Bridge Sluice - 60% completed.
- "A" Line Road Bridge Sluice - 95% completed.
- Strik-en-heuvel R.B. Sluice - 60% completed.
- No. 2 Road Bridge Sluice - Completed.
- No. 1 Canal - Heavy-duty bridge at Java completed.
- Hubabu Drain - Heavy-duty bridge completed.
- Hubu Main Drain - Heavy-duty bridge at High Level Canal completed.

Work on the facades on the East Bank, Essequibo area continued and all tidal outlets between Parika and Bonasika were closed.

General

Tidal water was taken in at Warimia until mid-May when pumping in the Boerasirie Service Canal ceased. Difficulties were encountered at the Ruby Road Bridge where a blow-out of sand occurred in the downstream excavation causing the coffer dam to be flooded, and at "A" Line Road Bridge Sluice when the downstream coffer dam collapsed. These breaches were repaired. Re-silting of the Salem/Blake Facade began in early June. A cut was made in the Main Crown Dam at Jumbie Creek, but this was fortunately detected early and closed off.

Conservancy levels at the end of the quarter were as follows:-

/Warimia .....

Warimia	...	60.4	G.D.
Leonora Corner...		60.1	G.D.
No. 1 Canal	...	60.3	G.D.

Employees inclusive of supervisory staff totalled 539 (377 being employed by the Contractors and 162 by the Department).

3. MINOR DRAINAGE & IRRIGATION WORKS:

East Demerara - All structures completed.

West Demerara - The earthworks on the western side of La Jalousie middle walk were completed except for about six rods at the Conservancy Head. The fencing of the area, and earthworks on the eastern side of middle walk were in progress. Clearing and surveys for the alignment of new irrigation trenches and dams were carried out.

Essequibo - Golden Fleece Weir and earthworks around the intake were completed. Work was carried out on the facade drain at Devonshire Castle. In the Devonshire Castle/McNabb area work was carried out in erecting<sup>s</sup> wire fence on the western dam of Lamaha and also of deepening Lamaha.

4. SURVEYS FOR DRAINAGE & IRRIGATION PROJECTS:

Six survey parties are now in the Mahaica/Abary/Berbice area collecting information for the Mahaica/Berbice Project.

5. HYDROGRAPHIC & HYDROLOGICAL SURVEYS:

Four stage recorders and a similar number of rainfall recorders are being operated and maintained in the Canje River area and three of each on the Mahaica, Mahaicony and Abary River areas. Flow discharge measurements were being taken at the new stations in the upper regions of the Mahaicony and Abary Rivers, and at Cane Grove on the Mahaica River.

6. CORENTYNE DRAINAGE & IRRIGATION SCHEME:

Tenders were invited for the work of reconditioning the Torani Canal and removing slips at Miles 5 - 7.

IV. EDUCATION

(To the time this Report was prepared, no returns for the quarter had been received from the Education Department).

V. FINANCE

Credit Corporation - Loans made and repayments received by the Credit Corporation during the quarter were as follows:-

/LOANS .....

	. LOANS		REPAYMENTS
	No.	Amount (\$)	Amount (\$)
Agriculture ...	37	91,704	86,897
Housing - Public Officers	20	126,600	88,358
- Other ...	100	187,900	159,235
Industry ...	7	86,731	119,137
Fishing ...	-	902	6,876
Logging ...	-	-	225
Food Production ...	33	195,123	64,472
Local Authorities ...	-	-	3,776
	197	688,960	528,976

VI. FORESTS

1. Staff Training - With the co-operation of the Trinidad Forest Department, an Assistant Conservator of Forests and a Forest Guard made a tour of silvicultural centres in that country. They paid special attention to the methods used for the establishment of *Pinus caribaea* plantations and natural regeneration of indigenous species.

2. Timber Appraisals - The survey of the area of about 150 square miles, immediately south of the Great Falls, Demerara River, was completed during the quarter and the survey party returned to Georgetown. The preparation of vegetation maps from aerial photographs continued until mid-June when the Assistant Conservator who was in charge went on leave.

3. Silviculture - Sixteen acres of worked out Wallaba forest were cleared and planted with pine (four acres *P. elliottii* and twelve acres *P. caribaea*) at Mile 5 of the Bartica-Potaro Road. A TD-6 caterpillar bulldozer was employed to clear part of the area in an attempt to reduce costs. However, due to mechanical break-downs only two and a half acres were cleared by this method at a higher cost than clearing by manual labour.

The existing plantations were tended. The total man-days worked was 456.

4. Central Timber Manufacturing Plant - The installation of the new Wadkin F.D. planer continued.

VII. GEOLOGICAL SURVEYS

Field Works - During the quarter the senior geologist continued his study of bauxite and laterite. He also carried out a detailed survey near the headwaters of the Potaro River on some aluminous laterites to determine mainly their tenor, tonnage and economic possibilities.

Two geologists returned to headquarters from the New River - Oronoque area after spending four months on field work there. During that time they surveyed about 466 miles of river traverses along the New River, the Oronoque and their principal tributaries, covering an area of about 2,500 square miles by preliminary reconnaissance.

A geologist and an assistant geologist carried out surveys in the area from the source of the Burro-Burro, across the Essequibo almost to the headwaters of the Demerara River. This area had not been mapped before and much valuable information on the geological structure and the nature of the geological formations was obtained.

/In the .....

In the Tassawini area (middle Barama) a geologist mapped 600 square miles which almost completed the whole of that area. In an adjacent area, an assistant geologist mapped about 450 square miles. In the Kutuau-Kopang area, a geologist and an assistant geologist completed about 600 square miles of mapping. The aim of surveys in these areas is to investigate the geological relationship between the metamorphosed volcanics of the Guyuni river and the metamorphosed sediments to the north.

Work was also in progress in the Merume-Kamakusa area. There, an assistant geologist re-mapped 1,100 square miles and carried out surveys in the columbite area of the Kunuballi River. This river is a tributary of the Mazaruni, a few miles upstream from the mouth of the Puruni River.

An assistant geologist carried out detailed prospecting for diamonds on the Pakaraina plateau. The distribution of diamonds is such that it seems that they are associated with a particular belt of country which is underlain by conglomerate. As there is much activity in a similar area to the north (in the upper Kurupung), it is important to know to what extent diamond mining can be extended to the upper Mazaruni.

The Geophysicist-Hydrologist investigated some test wells which had been drilled by the Public Works Department. The investigation is part of a plan in the study of the coastal artesian basin.

Buildings - Work on the block of flats in New Market Street continued. These flats are expected to be completed by the end of September. The construction of the new laboratory and dark-room began. This was being built on the ground floor of the new wing at Headquarters, Brickdam, and should be finished by early October. On the United Kingdom's decision to close their Atomic Energy Authority Office, the Government agreed to purchase the building which is in the Department's compound.

Laboratory Work - The work carried out during the quarter included:-

Analyses and identifications	...	34
Heavy mineral separations, sieve analyses, etc. for the Department	...	47
Thin sections prepared	...	552
Preparations, analyses, etc. for other Government Departments and members of the public	...	7

Drawing Office - In addition to the continuation of work on the compilation of controlled quarter degree sheets on scale 1 : 100,000 and a draft of a proposed legend book prepared by field officers and draughtsmen, the following work was carried out during the quarter:-

Ammonia sun prints made	....	117
Photoscopic stencils made	...	8
Maps and tracings made	...	25
Hand coloured prints for field geologists		20

Library - The number of books catalogued during the quarter was 2,546. 234 accessions were received while books loaned to the staff totalled 254. 89 copies of Bulletin No. 2 and 35 copies of the preliminary survey of the geological survey of the Potaro-Ireng area were cyclostyled for sale. The number of publications distributed free or sold were:-

Bulletins	...	95
Annual Reports	...	40
Mineral Resources Pamphlet	...	8
Maps	...	22
Other publications	...	2

53 serial publications and other books were bound.

VIII. HEALTH .....

VIII. HEALTH

1. Purchase of Hospital Equipment - During the quarter indents in the estimated sum of \$4,175 were placed. It is proposed to spend about \$60,690 this year on equipment.

2. Filaria Control - Nearly 50,000 persons were treated during the quarter and it is proposed to test another 6,000 at Vreed-en-Hoop and Pouteroyen.

IX. HOUSING

Construction of Houses - The housing programme was almost completed at the end of the quarter, only 54 houses remaining with the contractors for delivery. 3,164 houses of all types were completed:-

	RENT		SALE	SELF HELP		TOTALS	
	Under constr.	Com-plete	Com-plete	Under constr.	Com-plete	Under constr.	Com-plete
<u>DEMERARA</u>							
Georgetown	18	1,335	621	-	219	18	2,175
West Bank & West Coast	--	--	--	--	24	--	24
Wismar	--	150	102	25	--	25	252
East Coast	--	--	6	--	54	--	60
East Bank	--	--	16	--	24	--	40
	18	1,485	745	25	321	43	2,551
<u>ESSEQUIBO</u>							
Mainland	--	--	74	11	41	11	85
Bartica	--	--	52	--	12	--	64
North West Dist.	--	--	35	--	--	--	35
Essequibo Isls.	--	--	--	--	52	--	52
	--	--	131	11	105	11	236
<u>BERBICE</u>							
New Amsterdam	--	56	49	--	70	--	175
Corentyne	--	--	40	--	74	--	114
East Coast	--	--	19	--	51	--	70
East Coast & East Bank	--	--	--	--	18	--	18
	--	56	108	--	213	--	377
<b>GRAND TOTAL</b>	18	1,541	984	36	639	54	3,164

The position of the following contracts was:-

21A - H.A. Amo - 668 Houses. Completed.

38 Craig - 150 Houses. 18 houses remained to be completed.

39 Craig - 114 Houses: Completed.

Applications for rental and hire purchase accommodation totalled 5,634 and 3,403 respectively. Revenue collected during the quarter was \$235,262.59 including rents, hire-purchase instalments on houses and sale of land.

Aided Self-Help - At the end of the quarter six schemes of 78 houses were completed. This brings the total number of schemes completed to date to thirty-four of 624 houses. Three schemes of 51 houses were under construction. The distribution is as follows:-

COUNTY	COMPLETED		UNDER CONSTRUCTION		TOTAL	
	No. of Schemes	No. of Houses	No. of Schemes	No. of Houses	No. of Schemes	No. of Houses
Demerara ...	16	321	1	25	17	346
Berbice ...	11	200	1	15	12	215
Essequibo ...	7	103	1	11	8	114
	34	624	3	51	37	675

Drawing Office Staff - Only one draughtsman and four clerks of works were retained.

Quantity Surveyor/Architect - Tender documents for materials and work were prepared for a number of items during the quarter. Final accounts for contract 7, and the self-help schemes at Diamond and Cane Grove were completed.

#### X. LANDS & MINES

Astro fixes for ground control were carried out in the North West District.

#### XI. LAND DEVELOPMENT

##### 1. IMPROVEMENT & EXPANSION OF EXISTING LAND DEVELOPMENT SCHEMES:

Essequibo - Thirty acres of land were cleared in preparation for the planting of rice. A drainage trench was dug and another reconditioned. Cross dams and drainage trenches were cleared. Three box kokers were completed.

In the lay-out of residential areas, 687 rods of drains were dug and a cross street metalled. A drainage canal was being dug.

Vergenoegen - Burnt earth was obtained and the metalling of streets began. Bad weather affected the drainage work in this area.

##### 3. GARDEN OF EDEN:

A greenheart box koker which will drain some 200 acres of land east of it was completed. Work on the office continued satisfactorily.

The farm lots originally 39 in number and varying from approximately 12 to 50 acres were divided in half to provide holdings for twice the number of settlers. Approximately 1,400 rods of roadways and dams were raised and levelled in the south section of the scheme. Heavy rainfall led to the suspension of work on roadways and dams, the D6 bulldozer being used then to clear the trees from the north area of the compound.



4. DEVELOPMENT OF PLN. MARA CUM ANNEXIS:

About 500 acres in North and South L'Enterprise and North and South New Ma Retraite were cleared. 200 rods of the New Ma Retraite roadway were metalled. 26 new homesteads were laid out, prepared and occupied in south Schepmoed.

5. PLN. ONVERWAGT:

A complete scheme has not yet been approved.

6. PRELIMINARY INVESTIGATIONS:

During the quarter lands were investigated in connection with the expansion of the Mara Scheme.

XII. POST OFFICE

Telecommunications Rehabilitation

Buildings - The Engineer-in-Chief, Engineers, Traffic and Clerical staff occupied the new Georgetown Exchange building. Electrical lighting and fitting works were in hand at the end of the Quarter.

Unit Automatic Exchange - The Exchange Buildings at Benab, Mahaioa, and Wales were completed except for painting and flooring. The building at Cove & John was under construction while sites were being negotiated for the buildings at Skeldon, Blairmont and Mon Repos.

Rural Automatic Exchange Equipment - Exchange equipment was installed at both Ituni and Suddie. External plant was completed at the former while that at the latter was being installed.

Radio Buildings - The construction of the radio hut at Mackenzie was completed. A site for a receiving station at Mon Repos was obtained.

Underground Duct and Cable System - During the quarter 34 miles of cable were drawn in and 95 joints completed in Georgetown. Plans for New Amsterdam were awaiting final approval of the Consulting Engineers. Traffic surveys were made of Charity to Supenaam and Parika to Wales, while an engineering survey was made of the Charity/Supenaam area.

Exchange Equipment - The installation of the Exchange equipment, trunk, switch board and power plant progressed satisfactorily.

Subscribers' Apparatus - The conversion of private branch exchanges continued satisfactorily and wiring of new as well as existing subscribers' premises was well underway.

XIII. PUBLIC WORKS

1. ROADS:

East Coast - Maintenance was carried out to the earth-side walls of the experimental strip which were badly damaged by heavy rains. Some surfacing work was also done.

East Bank - Heavy and prolonged rainfall hindered constructional work for more than half of the quarter. Preliminary works were started on the Diamond Bridge and a small amount of clearing done at Coverden. Some progress was also made on the base course of the latter. A total length of 3 miles of three layers sand bitumen surfacing was completed at Friendship, Hope, Land of Canaan and Garden of Eden

/Parika-Bartica .....

Parika-Bartica - Final plans were being prepared for the proposed road of approximately 11 miles from Karabelli to Bonasika.

Bartica-Potaro - Approximately 3.37 miles of the road were completed during the quarter between  $3\frac{1}{2}$  and 7 Miles. Drains and outlets were dug. Temporary offices, stores, a fuel bond and field workshops were erected at 4 Miles. Four greenheart culverts were put down between Miles 1 and 3. The roadway between Miles 4 and 7 was cleared, widened and straightened. Stone crushing commenced in June, and boulders are being quarried at the 2 Miles quarry.

Potaro-Lethem - 10 and 17 miles of reconnaissance survey were carried out in the Pakatau Glendor and Annai areas respectively. 26 miles of flagging were completed between Taramu savannah and Toka village and 8 miles in the Pakatau Glendor area. Approximately 70% of the survey was completed. Seventy persons were now employed on the work.

## 2. SEA & RIVER DEFENCES:

Essequibo - During the quarter 624 feet of coping were completed at Anna Regina and work on the reinforced concrete coping at McNabb to Somerset and Berks commenced.

West Demerara - 236 feet work were completed in the De Willem/Zeeburg area. Tenders were invited for the casing of the Uitvlugt Pall-off.

East Demerara - During the quarter the survey of the Boulder Wall - Atkinson Field area was completed. In the Mahaica/Mahaicony area, approximately 200 feet of earth dam were thrown up. 7,000 feet of earth dam, 700 feet boulder facing to earth dam and 2,800 feet of reinforced concrete coping at Nabaclis/Strathspey were completed.

Berbice - During the quarter works at Springlands/Skeldon and the New Sea Dam at No. 2 and No. 3, reconditioning of the Industry/Borlam dam, sealing-off of the Koker, North Zorg-en-Hoop, and clearing the Ithaca channel were completed. Approximately 400 feet of boulder wall and 900 feet earth dam were thrown up from No. 78 koker to Springlands Stelling and about 480 feet of wall between Stanleytown and Islington were completed. Contracts were awarded for the works at New Sea Dam, Cotton Tree/Zee Zight and R.C. Wall, River Defences, Stanleytown/Islington. Two draglines were purchased. The use of the electronic devices to carry out surveys when land marks are not visible was being investigated.

36 feet of recasing of walls with concrete were done in the West Demerara Country District.

## 3. NEW PUBLIC BUILDINGS:

Additional electrical works at the New Laboratory Building, Technical Institute and the work on the sub-Registry Vault, New Amsterdam were completed during the quarter. Both the new office for the District Commissioner, Vreed-en-Hoop and the extension of the Forest Department Headquarters were in progress and approximately 60% completed. Only 25% of the work on the workshop at Triumph remained to be completed.

## 4. HOUSING FOR PUBLIC OFFICERS:

At the end of the quarter houses were completed for the District Commissioner, Fort Wellington; Marshal, New Amsterdam; Engineer, Drainage and Irrigation, Capoey; Veterinary Officer, Suddie; Inspector, Post Office Telecommunications, Anna Regina; and Engineer, Public Works Department, Lethem. The conversion of a house to three flats at New Amsterdam and barracks to married quarters at Atkinson Field were also completed. The construction of houses was in progress for the Technician, Post Office Telecommunications; Prison Officer, Mazaruni; 2 Field Officers, Karasabai and Ishalton, Rupununi; and the construction of the block of flats, New Market Street continued.

5. RURAL WATER SUPPLY (ARTESIAN WELLS):

The overhead tank at La Bagatelle, Leguan was completed and work on one at Palmyra was in progress. A tank was erected on the crest of the Hosororo Hill and pipe lines laid; constructional work on the feed well and the erection of a hydram continued.

The construction of a 20,000 gln. concrete sump was completed at Best while work continued on the overhead tank at Vreed-en-Hoop and the 36,000 gln. concrete sump at Pouderoyen. Materials were being assembled for the 20,000 gln. overhead tank at Vergenoegen/Philadelphia and the one at Ondermeeming was almost completed.

XIV. TRANSPORT & HARBOURS

Steamer Services - Work continued on the reconstruction and improvements to the Morawhanna Stelling and at the end of the quarter the painting of the bond was completed. The reconstruction and expansion of the Georgetown and Vreed-en-Hoop Ferry Terminals commenced. Installation of the new engine for the M.V. Barima is in progress. The new ferry "Makouria" being built in Scotland is due to be launched in July, 1959, and the keel of the one being built by Sprostons was laid.

Harbour Services - Work on Vreed-en-Hoop Harbours Depot and Launch Station continued satisfactorily. The fitting of sanitary amenities and painting were completed. Two 16-K.W. generators will be installed for general lighting and power. These generators will be operated on a 24-hour shift system and will be used to serve the Ferry Terminal, Railway Station, Locomotive Running Shed and Workshop as well as the Harbour Depot and Launch Station.

Railway Renewals - At the locomotive shed, construction of the new offices and the storeroom for inflammables was completed, sanitary amenities installed and rewiring done. Improvement works were carried out to the stations at Mahaicony, Belfield, Clonbroor and Golden Grove on the East Coast, and Boerasirie and Tuschen on the West Coast. Strengthening and welding repairs to the bridges at Mahaica, Mahaicony and Abary were carried out and painting began.

XVI. RURAL SELF-HELP

At Mocha, good progress was being made on the self-help scheme for the provision of irrigation water for the area.

XVII. SOCIAL WELFARE

Community Development - A new project was launched at Queenstown, Essequibo, and a leadership course arranged. It is hoped that this course would be of benefit to all leaders of both statutory and voluntary organisations within the area.

Youth Welfare - Most of the equipment for the Albouystown Y.M.C.A. Club was obtained and members were taking full advantage of the facilities afforded them. The membership is now 250.

XVIII. LOCAL GOVERNMENT

On 24th April, the Governor assented to the Local Government (Valuation of Property) Ordinance, No. 5 of 1959. Two bills dealing with the constitution of Local Authorities and Election Procedure and Regulations and to regulate the financial affairs of local authorities were under preparation.

XX. AMERINDIAN DEVELOPMENT

Water Supply - Wells were made and pumps installed at Massara, Sawariwau and Toka villages, Rupununi.

Training Centres - Four classes commenced during the quarter. One in sewing in the Rupununi, one in carpentry at Waramuri, one in domestic training in Cabacaburi and one in tailoring at Wakapau.

Trade Stores - The store at Karasabai was opened for business. A prefabricated aluminium building was ordered for Aishalton Village.

District Office, Orealla - Building sites were inspected and plans were being prepared.

## APPENDIX

## Development Programme - Financial Statement

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Head of Estimate and project		Total Provision for 1959	Total Expenditure for 1959 (to end of June)
		\$	\$
I.	<u>AGRICULTURE:</u>		
	Staff Training ... ..	41,449	1,847
	Central Agricultural Station	154,195	2,355
	Mosororo Experiment Station	94,500	7,304
	Employment of a Soil Scientist	25,470	9,451
	Soil Surveys - Coast & Interior	129,652	17,072
	Livestock Station - Ebini ..	60,440	22,923
	Livestock Station - St. Ignatius	97,807	18,084
	Fisheries - Inland & Sea	49,770	35,015
	Cocoa Trials .... ..	64,703	22,757
	Jute Investigations ... ..	34,152	14,609
	Development of Coconut Industry	20,000	10,129
	Botanical Surveys - Intermediate & Interior Savannas ... ..	4,830	1,742
	Abattoir & Refrigeration Plant, Lethem ... ..	3,000	-
		779,968	163,288
II.	<u>CIVIL AVIATION:</u>		
	Improvement of Interior Communications ... ..	45,030	9,743
	Safety & Navigational Aids	29,506	24
	Aeronautical Telecommunications and Navigational Aids ...	11,404	-
		85,990	9,767
III.	<u>DRAINAGE &amp; IRRIGATION:</u>		
	Black Bush Polder ... ..	4,076,000	2,317,766
	Boerasirie Project ... ..	1,443,772	784,673
	Minor Drainage & Irrigation Works ... ..	1,235,802	82,948
	Surveys for Drainage & Irrigation Projects... ..	143,000	35,540
	Hydrographic & Hydrological Surveys ... ..	105,800	16,174
	Courantyne Schemes ... ..	292,000	33,239
	Rosehall Village District - Permanent Drainage System	15,010	33
	Reconditioning Drainage - North Pouderoyen ... ..	15,796	7,195
	Tapakuma - Investigation & Report	368,000	47,471
		7,695,180	3,325,039

/IV. EDUCATION ....

\*Estimate: Departmental returns not received.

APPENDIX (Contd.)

	Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of June)
IV.	<u>EDUCATION</u> Primary Schools - Buildings - Furniture & Equipment - Sanitation Capital Grants to aided Secondary Schools ... .. Extensions & Improvements to Queen's College ... .. Handicraft & Domestic Science Departments ... .. Technical Institute - Laboratory and Classroom Equipment ...	\$ 400,000 80,000 25,000 60,000 32,400 97,000 14,000 708,400	\$ * 130,000 * 25,000 * 5,000 * 20,000 * 2,000 - * 3,000 * 180,000
V.	<u>FINANCE</u>	-	-
VI.	<u>FORESTS</u> Additional Temporary Staff... Staff Training ... .. Timber Appraisals ... .. Silviculture ... .. Central Timber Manufacturing Plant ... ..	37,940 4,500 35,424 50,581 46,000 174,445	12,170 388 13,477 7,605 34,840 68,480
VII.	<u>GEOLOGICAL SURVEYS</u> Geological Surveys & Mineral Development ... .. Inter Guiana Conference ...	549,079 3,800 552,879	231,316 - 231,316
VIII.	<u>HEALTH:</u> Purchase of Hospital Equipment Cottage Hospital - Leonora .. -do- - Leguan ... .. -do- - Mahaicony Health Centres ... .. Mortuaries ... .. Filaria Control ... .. Poliomyelitis Vaccination ... Erection of Central Medical Store, Pharmaceutical Manufacturing Department & Alcohol Bond ... .. Health Museum - Equipment ... Settlement of Ex-patients - Mahaica Hospital ...	27,156 65,024 71,420 62,450 213,000 9,000 9,270 86,300 16,078 597 10,000 570,295	3,944 - 800 5,000 - - 4,092 - 5,343 597 - 19,776

APPENDIX (Contd.)

	Head of Estimate and Scheme	Total Provision for 1959	Total Expenditure for 1959 (to end of June)
		\$	\$
IX.	<u>HOUSING:</u>		
	Rural and Urban Housing ...	891,169	419,238
X.	<u>LANDS &amp; MINES</u>		
	Topographic Surveys ...	22,000	5,738
XI.	<u>LAND DEVELOPMENT</u>		
	Improvement and Expansion of Existing Land Settlement Schemes ...	189,713	* 5,190
	Equipment for and Improvements to Workshops on Land Settlements	12,000	* 500
	Development of Garden of Eden	105,698	* 92,000
	Development of Pln. Mara ...	545,425	* 98,000
	Development of Pln. Onverwagt	100,391	-
	Purchase of Land ...	45,000	-
	Preliminary Investigations ...	1,000	* 1,310
	Erection of Bonds for Pure Line Seed Padi ...	9,700	* 3,000
		1,008,927	* 200,000
XII.	<u>POST OFFICE</u>		
	Telecommunications Rehabilitation	1,528,930	1,352,453
XIII.	<u>PUBLIC WORKS</u>		
	East Coast Demerara Main Road	850,000	48,654
	East Bank Demerara Road ...	600,000	169,354
	Parika-Bartica Road ...	30,000	4,908
	Bartica-Potaro Road ...	200,000	66,574
	Potaro-Lethem Road ...	200,000	91,095
	Reconstruction of Berbice Road	10,000	-
	Sea & River Defences ...	1,753,857	381,782
	New Public Buildings ...	100,000	71,423
	Housing for Public Officers ...	194,344	39,103
	Rural Water Supply - Artesian Wells ...	700,000	139,984
	Road Making Plant ...	32,800	-
	Extension P.W.D. Workshop ...	47,000	11,355
	Hydrologic Research and Instruments ...	19,000	-
		4,737,001	1,024,227

/XIV. TRANSPORT .....

	Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of June)
		\$	\$
XIV.	<u>TRANSPORT &amp; HARBOURS:</u>		
	Rehabilitation of Steamer Services	1,935,569	435,921
	Harbour Services Improvement	50,000	17,902
	Railway Renewals ...	193,998	83,877
		2,179,567	537,700
XV.	<u>MISCELLANEOUS</u>		
	New Amsterdam - Improvement of Water Supply	120,634	* 2,200
	Expenses of Issue	10,000	* 3,200
	Government Recording Studio	41,000	-
	Experiment in Papain Production	1,000	-
	Improvement Library Facilities -		
	- Primary Schools	2,400,	* 500
	- Secondary Schools	1,200	* 700
	Visual Aid Equipment ...	1,920	-
	Construction, Atkinson Field Sports Club ...	2,400	-
	Extension of Georgetown Pure Water Supply to areas comprising the Greater Georgetown Area ..	2,008	* 3,400
	Training in Home Economics	1,461	-
	Training in Agriculture ...	2,150	-
		186,173	* 10,000
XVI.	<u>RURAL SELF HELP:</u>		
	Rural Self Help Schemes ...	300,000	15,291
XVII.	<u>SOCIAL WELFARE:</u>		
	Community Organisation, Education and Development ...	26,622	2,668
	Extension - Albouystown Y.M.C.A.	3,550	1,755
	Sports Development ...	4,000	-
		34,172	4,423
XVIII.	<u>LOCAL GOVERNMENT:</u>		
	Temporary Specialist Staff	59,732	26,004
XIX.	<u>RURAL ELECTRIFICATION</u>		
	Rural Electricity Schemes	36,000	23,853
XX.	<u>AMERINDIAN DEVELOPMENT</u>		
	Rest Shelters ...	16,500	38
	Water Supply - Amerindian Villages	5,000	1,598
	Amerindian Training Centres	8,000	399
	Trade Stores	6,758	2,358
	Wapisiana Fencing Scheme ...	2,000	-
	District Office - Orealla...	23,750	-
		62,008	4,393
	GRAND TOTAL : HEADS I - XX ...	21,614,836	7,594,982