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Foreign Affairs



Giritilla
(*Argyrea populifolia*)

DECEMBER, 1958

CEYLON TODAY

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P.M's Broadcast to the Nation

THE following is the text of the speech that the Prime Minister, Mr. S. W. R. D. Bandaranaike, made over Radio Ceylon on November 10, 1958.

I should like to take this opportunity of saying a few words to the public on some matters that may be exercising their minds at the moment.

First I should like to say a word about my health. For the last two or three weeks I have been suffering from the effects of a chill and have been asked by my doctors to rest for some days. I am very much better now and I have greatly benefited by the little rest I have had—the first within the last 30 years of strenuous public life.

I am compelled to refer to this matter in view of the wild rumours that some mischievous persons are spreading. Some are spreading the rumours that I am seriously ill, in the hope, presumably, of supplying some encouragement to their followers. Some others are saying that there is nothing the matter with me and that I am really hiding myself from the public. To the former I would say that they will soon discover that I am even fitter than I was before; to the latter I would say that in my long public career it has never become necessary for me to shun the public, as certain other politicians

have had to do; and that indeed the vast majority of the public of my country have always extended to me their kindness and courtesy, even when some of them disagreed with my views.

I wish now to say something about the emergency. As you all know at the end of last May the Government was reluctantly compelled to declare a state of emergency owing to the communal troubles that arose at that time and although law and order have been restored, it has been necessary to continue the state of emergency until good feelings have once again been sufficiently restored to prevent any further outbreak. Although these good feelings are gradually being restored, there are still some mischievous elements ready to start some trouble if the emergency were lifted too soon, but I have progressively removed various onerous regulations that had been framed in the early days of the emergency and I believe that the people do not now suffer any particular embarrassment although the state of emergency continues.

Another point to be borne in mind is that our Public Security Ordinance is a very old one and needs many amendments. These amendments are now being prepared. At present, without declaring a state of emergency throughout the country, even such a

small precautionary measure as having curfew in some limited area for a few days is not possible. I am quite satisfied that, except for a small minority, the vast majority of the public whether they belong to the majority community or the minority communities are neither irked by the continuance of the emergency nor wish it to be lifted immediately. It will certainly be lifted as early as possible, when it can be done without danger to the public interest.

In India

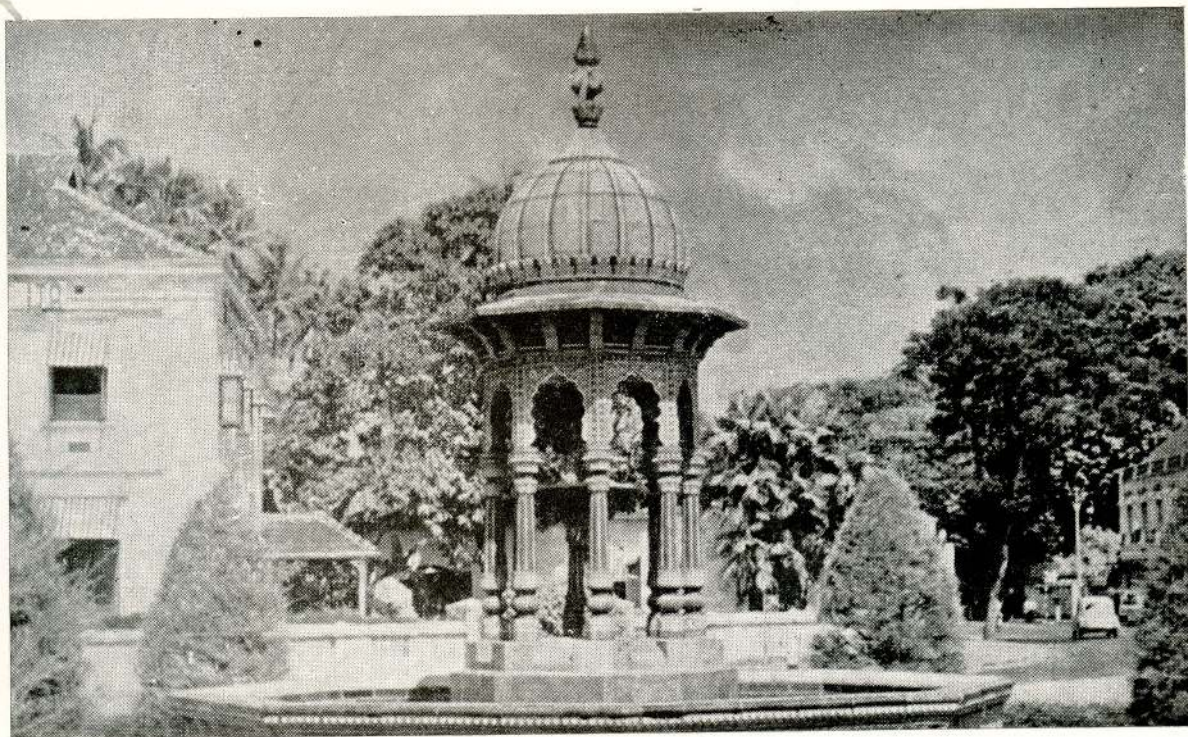
IN passing I should like to point out that in India there is no need to declare a state of emergency to enable the Government to take a number of steps which we can only take in Ceylon at present under a state of emergency. In India even people can be taken into preventive detention without trial without having any state of emergency declared and there are a number of regulations throughout India as well as in the various states that enable the Government to take steps to deal with any situations of trouble that arise. I merely quote this to show that even in India which is often stated to be the most stable democracy in Asia such steps are found to be necessary which we in Ceylon are unable to take without first declaring a state of emergency.

Indeed the Government neither declared the emergency nor is it continuing it for its own benefit but only in the interest of peace and public security. Although we are still having the emergency, as I have stated earlier, most of the regulations have been withdrawn. Our opponents are given the fullest liberty to hold meetings and abuse the Government and myself to their hearts' content. Only last afternoon I heard speakers at such a meeting bellowing their abuse through loud speakers. It rather amused me than otherwise.

The next point which I would like to refer is the wishful thinking of some of our opponents who keep on shouting that the Government will collapse and there will be an early general election. Amongst various other fantastic manoeuvres to rouse up enthusiasm amongst their so-called followers and to mislead the public. This is most comic. I can assure the public that elections will only come when they are constitutionally due, that is about two and a half years hence. When those elections come, we shall give the country fair elections so that the people can exercise their free votes freely. We shall not resort to the election tricks and dodges that were only too common earlier.

Accomplished Useful Work

I do not say that our Government is free from defects or that we have been able yet to fulfil all expectations. But I do say that, amid the various difficulties with which we have been faced, we have accomplished a certain amount of useful work and hope to accomplish much more before the end of this Parliament's term. In the election of 1956 the people gained a victory for the progressive forces as against the reactionary yoke to which they had been subjected earlier and the people must beware that whatever differences there may be among political parties they do not allow themselves to be misled under whatever guise the Mara of reaction comes. The main fundamental struggle in the country still remains between reaction and progress. We may have our faults but I can assure the people that we shall always endeavour to strengthen and stabilise the forces of progress so that we shall never again fall back into the clutches of the reactionaries who are already becoming desperate owing to the progressive measures the Government is introducing.



The memorial to George Wall at the de Soysa Circus in Colombo

Colombo Old and New

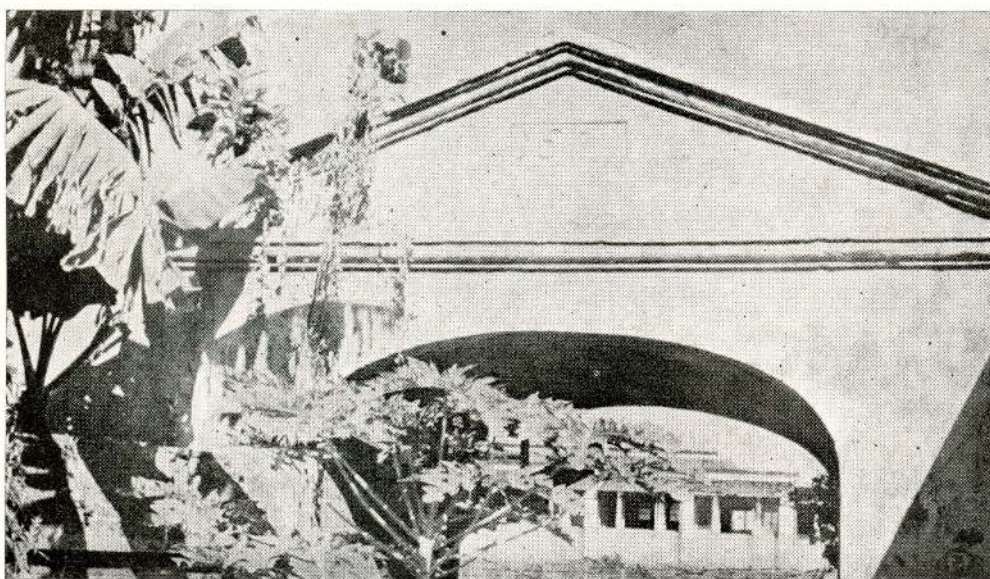
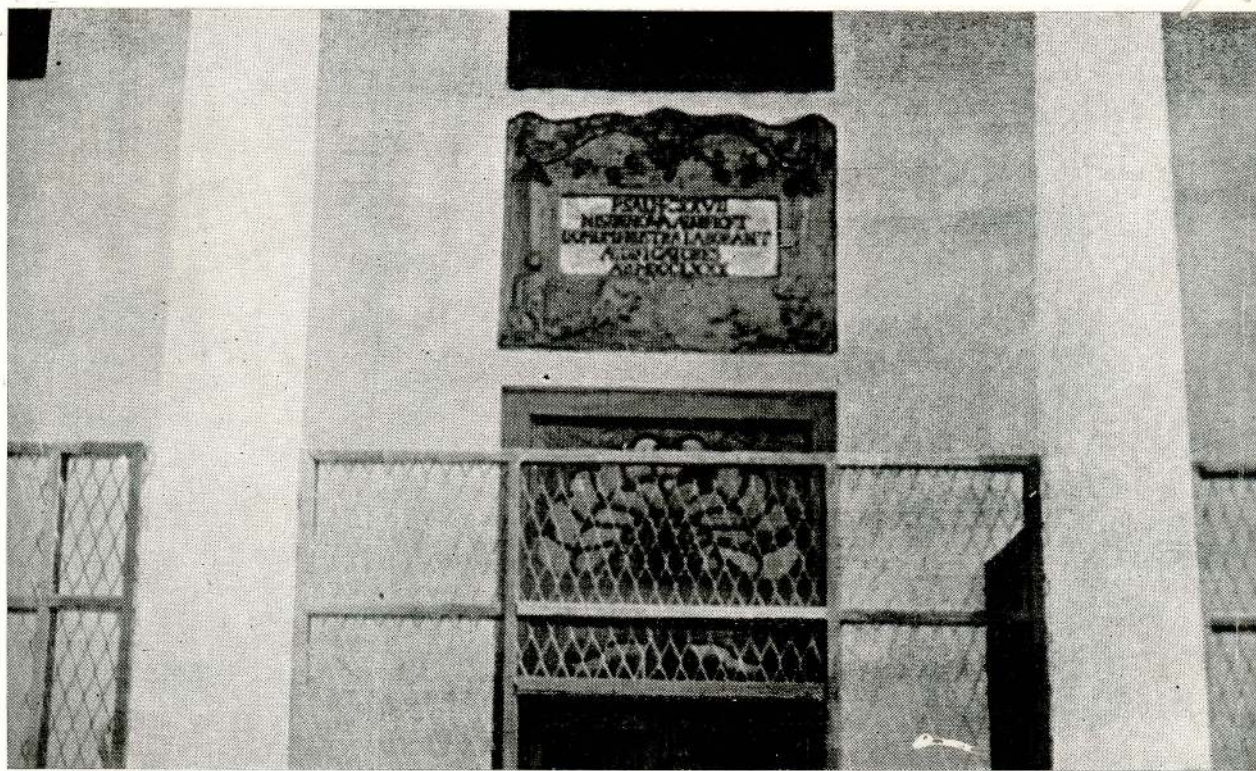
ESME RANKINE

COLOMBO'S recorded history begins in 1505, when Dom Lourenco de Almeida, son of the Portuguese Viceroy of Goa, took shelter here from a storm. He was in command of a punitive expedition sent by his father to seek and intercept Arab trading ships, reputed to be sailing further south to avoid capture. In the bay they found 'several ships from Bengal, Persia, the Red Sea, and other places, which had gone there to barter cinnamon and elephants'. Dom Lourenco instructed his men to cut his country's arms on a rock lying at the point of the bay—that rock is now in Gordon Gardens in Colombo—and asked to see the king. They were conducted to the royal palace at Kotte in the manner that gave rise to the saying 'As the

Portuguese went to Kotte'. Sinhalese permission to trade was courteously given.

Twelve years later they returned. Portuguese ambassadors enticed the Sinhalese king with promises, of military protection from foreign traders and the riches to be derived from the trade the Portuguese themselves would establish. Too late, the king found himself a 'vassal of Portugal', and under obligation to pay a yearly tribute of cinnamon, sapphires and elephants. This convention inscribed on plates of gold, was carried back to Portugal.

Camoens in *The Lusiads* refers to this tribute of cinnamon as the crowning triumph



▲ The present Pettah Post Office has an interesting plaque

◀ Gate of the old Dutch Fort now part of Flag Staff Street

attached to the 'planting of the Lusitanian standard on the towers of Colombo'. Ribeyro says: 'Colombo from being a small stockade of wood grew to be a gallant city fortified

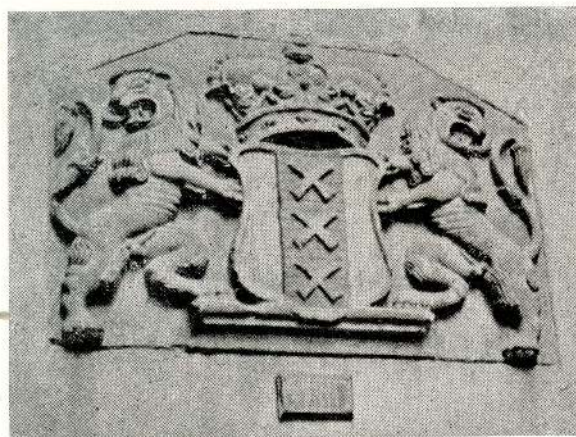
with bastions . . . its line of circumvallation stretched 1,300 paces'. The men who built the fort came in seventeen Portuguese ships, commanded by Lopo Suarez de Albergaria,



Main Street, Fort, as it is today

About 1519 the fort was rebuilt, in stone, to fall to the Dutch in 1656, after a siege that has passed into history for the gallantry of its defence.

The Dutch Coat of Arms which was dug up during the erection of the present Central Y. M. C. A. in the Fort. It is dated 1717



Arab Ascendancy

THE discovery of the uses of Colombo was not made by the Portuguese. It was undoubtedly known in Asia long before Vasco da Gama sailed east. It was the period of Arab ascendancy in the Indian Ocean. That they had established themselves in Ceylon by about the 8th century is reasonably evident. There is besides the epigraphical evidence of a tombstone, discovered in Colombo about a hundred years ago, giving the *Hegira* date 337, calculated as 949 A.D.

Sinhalese historical literature first mentions Colombo in connection with the movement of the capital to a site 'not far from the port of Kolamba', at the end of the 14th century. By then Colombo had become an important port, mentioned by travellers and historians of the period. It is a curious fact of Sinhalese history that they themselves had never any sea-faring ambitions; they were content to remain 'interested spectators', as Tennent describes them, 'of this

busy traffic in which they could hardly be said to have taken any share'. It was the Portuguese who first fortified Colombo and laid the foundations of the city as it is today.

Colombo had its share of battle and siege. Realising the importance of Ceylon to facilitate and secure commerce with India and the Far East, Portuguese, Dutch, and British, in turn, intrigued, skirmished, and treated with each other, and with the Sinhalese, for its possession. In 1579, Colombo stood a siege that lasted eighteen months, of which there is the detail, piquant in a nuclear age, of elephants 'with swords and knives fastened to their trunks' used as means of war. For all the desperate straits the Portuguese were reduced to in the seven-month siege of Colombo which ended in its surrender to the Dutch, it is recorded that of fifteen elephants only one was allowed to survive, 'for the affection all had for him'. This, although it was suspected that the extremity of starvation had forced the inhabitants to begin secretly to consume human flesh.

Colombo fell to the Dutch in 1656: to the British in February, 1796, to Col. James Stuart on behalf of Lord Hobart, Governor of Madras. By the Convention of 1815 all Ceylon was ceded to the British, who remained in Government of the Island till she was given back her independent status in 1947.

Map of Colombo

THE earliest map we have of Colombo is dated 1510, bearing the legend that 'this fortress was erected by Governor Lopo Suarez' and that it was demolished not long after. Barros records that Suarez, when he saw 'the shape of the port, and how suitable the narrow end of that point was for building the fortress, he at once agreed with the Captains that it should be on that spot'. The map shows a small triangular fortlet with three bastions built into the point of the hook (taking in the area from what is now the

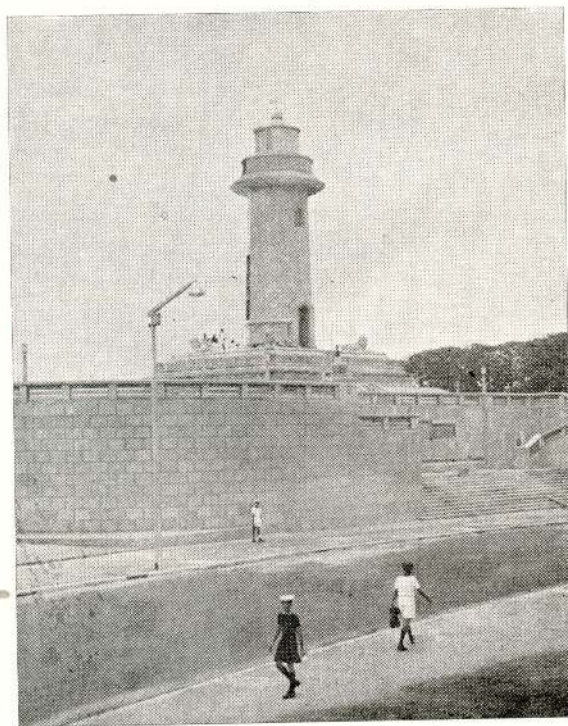


The old light-house and clock tower at the intersection of Queen and Chatham Streets. The light-house does not function now

root of the S.W. breakwater to Commissariat Gate), cut off from the mainland by a ditch with a bridge over it. The bay is shown as sailing many ships but there is no sign of further habitation. The mainland is shown as heavily wooded. Barros adds that the middle of the bay was 'cut by a river'. Inside the fort was the monastery of San Lourenco



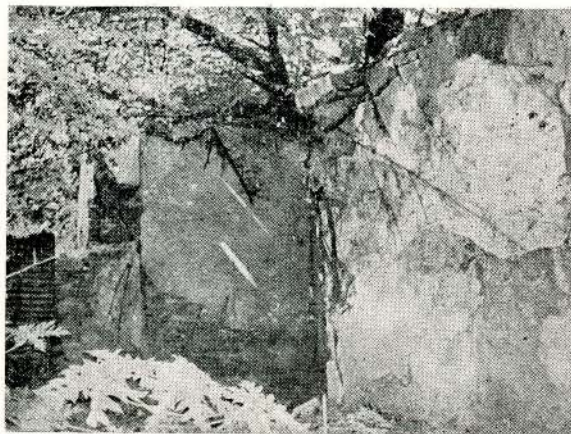
▲ Queen's House, Fort, the official residence of H. E. the Governor-General



◀ The new light-house opposite the Navy barracks

founded by the first Portuguese settler, Dom Lourenco de Almeida, to honour his patron saint.

J. H. O. Paulusz in 'Land Maps and Surveys' (published in 1951) places the bastions of the much extended Portuguese Colombo that did battle with the Dutch, and gives in detail the growth and arrangement of the city up to the British takeover. In the century and a half of Portuguese occupation Colombo had become 'a spacious fortress with a dozen bastions strung out along its walls which formed a three-mile cordon round the city'. Given briefly we find a Water Fort at the tip of the hook, a Water Gate in the curve of the cape, and a small battery at Galle Buck; opposite the entrance to the present House of Representatives the bastion of San Antonio, from its right flank



Ruins of the Dutch Fort rampart behind the Police Inspectors Mess in Duke Street

the Mapana Gate giving access to the road to Galle; near the Regent Flats roundabout the bastion of San Jeronimo; facing the Fort Railway Station the bulwark Conception; just past 4th Cross Street Madre de Dios, and beyond them San Phillippo.

'On the spot where the Pettah Belfry now stands towered the mighty pentagonal shape of San Estevao, which endured a cannonade of 30,000 volleys during seven months till it finally crumbled before the Hollanders.' From here the line of defence ran westwards towards the sea. The present fish market adorns the site of the great bastion of San Joao, heavily armoured to meet assaults from land or sea. Thence, the line followed the shore to meet the original fortifications of Suarez' 'factory'.

Correspondingly, the heavily wooded but otherwise empty area between the sea and Beira Lake presented a populated area with many buildings. Almost coincident with Prince Street was the Street of San Francisco, leading out from the convent of that name, near Queen's House. The Chartered Bank now occupies the old cloister of St. Augustino. Canal Row commemorates the Pond of Colombo.

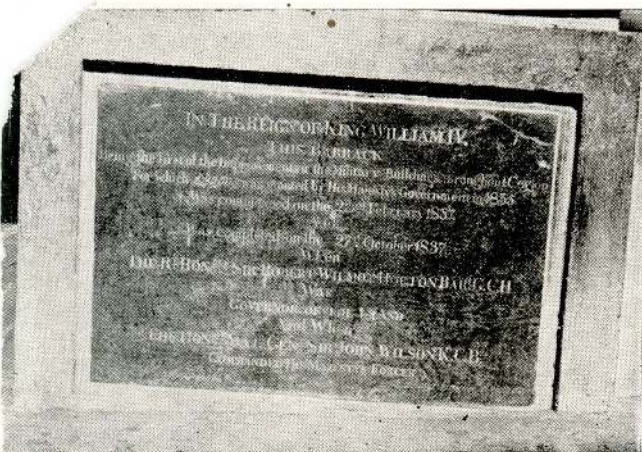
Passing through the town from the Portuguese Hospital, now Caffoor's Buildings,

went the Street called Straight, partly surviving in our Main Street; except that it did not then curve left as it does now but led indeed straight, on through the Pettah Burial Ground—itsself now a memory—past the Portuguese Town Hall on 1st Cross Street, and met the walls at Queen's Gate, about the centre of the modern 4th Cross Street. The angle made by 1st Cross Street and Reclamation Road was then the General's Mansion, overlooking a fine prospect of the harbour cooled, where Chalmers Granaries and Front Street are now, by a coconut plantation. Half a mile or so outside the city limits was the Portuguese Church of Our Lady of Guadalupe, taken over when the Dutch came and the name turned into Wolvendaal.

Dutch Colombo

VAN GOENS the Elder set about to rebuild Colombo. Seven months of steady bombardment had so pulverised the city that it seemed simpler to finish the work of demolition. 'He smote it from top to bottom so that not one house was left upright, wrote the Dutchman van Dam (Paulusz adds a note here that this was not literally true, as a few isolated Portuguese houses were left intact). Van Goens was in a hurry. Slaves and hired men in great gangs were put to unremitting work. Roads were replaced by broader and straighter thoroughfares. Temporary stockades followed the Portuguese ramparts on the land side, at present abandoned and withdrawn to higher ground, reducing the city's outer circuit by about half a mile. The ground outlying the new walls was permanently flooded and a broad expanse of the lake flowed in as far as Kayman's Gate. The lake in those times was infested with crocodiles. Kaiman means crocodile.

An inner citadel was now for the first time devised, ringed off with eight bastions. Of these Leyden, where the recently demolished Passenger Jetty led off, and Delft, surviving in Delft Gate behind Caffoor's Buildings, are



A tablet in the street wall of the present G. O. H. building

left. Lotus Road bordered the outer moat that can still be traced in the depression in which the C. T. O. now stands. Later an inner moat (finished in 1698) was dug along York Street leaving a similar depression into which Bristol Buildings and the Registrar-General's Office are sunk. The little flight of steps leading from here to Bristol Street, opposite the Y. M. C. A., is believed to be the steps down which slave-gangs were led at sunset each day to be put into the boats that took them back to their quarters in Slave Island. In the western wall of the inner court in the Y. M. C. A. is a stone with a coat-of-arms engraved on it and the date 1717. Underneath is the information: 'This stone was originally over the main gateway of the First Dutch Fort of Colombo erected in 1717. It was found when excavating for this building in 1921'.

The Dutch Church stood in Gordon Gardens and survived into early British times, although in dilapidated condition and Wolvendaal had since 1757 been in use as the official church of the Dutch Company. In 1813 'the British authorities, after consultation with the principal Dutch inhabitants and with their consent and approbation', decided to remove the tombs to the church at Wolvendaal. The ceremony took place on the

night of September 4, 1813, by torchlight, the procedure to be followed being previously announced in the *Government Gazette* of September 2. The remains of five Dutch Governors and altogether some two dozen persons were accordingly removed, and their names listed. At least five of these headstones according to Lewis, have disappeared, among them that of General Hulft, killed in battle in the siege of Colombo; and another stone bearing an inscription 'in pure Portuguese over a King of Cotta who was converted to the Catholic faith in 1550 and who died in 1607'.

Let into the street wall of the G. O. H. by the main entrance is a stone with the legend: 'In the reign of King William IV this barrack, being the first in the improvements in the Military Buildings throughout Ceylon for which £ 80,000 was granted by His Majesty's Government in 1835, was commenced on 3rd February, 1837, and completed on 27th October, 1837, when the Rt. Hon. Sir Robert Wilmot Horton was Governor of the Island and Maj. Gen. Sir John Wilson commanded His Majesty's Forces'.

St. Peter's Church

ST. PETER'S CHURCH, notified for divine service in March, 1804, had as its first Chaplain James Cordiner, who afterwards wrote a book about Ceylon. Lewis mentions that the church possessed a silver gilt communion service, salver and candlesticks presented by His British Majesty George III. The building was originally the residence of the Dutch Governors. All Council Meetings were held there. A picture in the Rijks Museum in Amsterdam, a copy of which was in the Colombo Museum, shows the interior as it was then.

Dr. Andreas Nell quotes the account left by a British Naval Officer, Surgeon Ives, who visited Colombo in 1757: 'The Town of Colombo is situated on gentle rising ground . . . the streets . . . judiciously contrived with easy ascents and declivities, so that no

inconvenience arises even from the greatest rains. The streets are very wide with a beautiful row of trees on each side, and between them and the houses is very smooth and regular pavement. Between the trees is a very fine verdure equal if not superior to the best walks in ye most noted Gardens in England . . . and ye whole so elegantly dispos'd and so much unlike anything we have yet seen in India . . . Round most part of the town there's a double wall. They have a wet ditch all round it which is full 60 ft. wide, and cover'd way and glacis where the ground will admit of it, but they appear as capable of defending themselves against any power by the good disposition of their water as by their fortifications . . . Here is a garrison of near 1,300 Europeans remarkable for their size and strength, and all young. In my whole days I did not see 3 soldiers 40 years old . . .', and so on.

Foenander's map of 1785 carries informative notes. The washermen of the city appear to have had prescriptive claims not only to the stretch of water along which they thrashed their laundry but likewise to the

adjacent meadow land on which they spread it out to dry. Outside the city, wall, on the piece of land by the spill till recently the Military Burial Ground, is indicated a tannery: a resthouse or inn where the Colombo Club now stands, near it another building called simply 'School'. In Wekande, coir hawsers used by ships were made.

In Portuguese times, 'fifteen Chinese champans' sailed the lake on guard. In 1860 it was the custom, if one lived in the proximity of the lake, 'to light fires on the lawn to draw away the flies from the reception rooms, which are kept darkened and with closed windows till the arrival of the guests.'

Colombo has indeed come a long way since Ptolemy, first map-maker of Ceylon, marked his Headland of Zeus on the promontory that was the landmark of those early navigators on whose recountings the Greek cartographer made his map.

(With acknowledgments to J. H. O. Paulusz, recently retired Government Archivist, for most of the material contained in this article.—E. R.)



A Muslim fisherman, at the edge of Rugam Tank, throwing his net to catch fresh water fish for his food. This is when the tank has water up to a certain depth

The Restoration of Rugam Tank

S. V. O. SOMANADER

IT has been recently announced that the repairs to Rugam Tank, in the Eastern Province which suffered heavy damage during the unprecedented floods of December 1957, have been completed by the Irrigation Department, and, as a result, full cultivation can now be done under this tank for the next season.

The Rugam Tank, it may be mentioned, lies in the Batticaloa District, about 20 miles south-west of Batticaloa on the route to Badulla. It is one of the ancient tanks, having been restored by the then Government Agent (Mr. W. W. Hume) in 1868 during the period of governorship of Sir Hercules Robinson. A disastrous flood swept the country in 1878 when Sir James Longden was the governor, and the tank breached. Subsequently, the work of restoration was completed by the Fourth Division Pioneers

in 1892—according to an inscription I found on the rocks near the tank-sluice. Sir Arthur Havelock was the governor at that time.

The actual work for the construction of Rugam Tank was undertaken during Governor, Sir Henry Ward's period (1855-1860) at an initial cost of Rs. 160,000. (It must be noted that materials and labour were much cheaper then). Since then, improvements have been effected from time to time by the Irrigation Department to serve the needs of the cultivators of the area.

This tank has a spill level of 14 ft. 10 in. but, during the heavy floods of certain past years, it rose above this height to several feet—the maximum height recorded being 21 feet, that is to say, the flood-waters, after filling the tank completely, leaped more than six feet above the spill, like a miniature



◀ Villagers' cattle found on the dry bed of Rugam Tank. In spite of the general drought prevailing then, they looked well-conditioned, because pasture and water (from the tank-pools) are assured for them

Various kinds of machinery engaged in repairing the tank-breach at Rugam. On right is tractor to level earth ; in middle, is tractor bringing buckets of earth ; on extreme left (behind), is water-bowser used for moistening the new earth-fill for consolidation of bund ; in background can be seen pools of water still left in the tank ▶



waterfall. This was in January 1913, when Sir Henry MacCallum was Governor, and Mr. J. O'K. Murty was the G. A., E. P.

December Floods

BUT, since then, the tank stood up to the ravages of the weather till the last unprecedented floods of December 1947, when it overtopped the 1913 mark by another two or more feet, and (what is more serious) a section of its bund, in length 300 feet was washed away. Consequently, the bund, as a

whole, was badly eroded ; so much so, that the people of the area lost all hope of the tank-breach being repaired by Government in time for the next cultivation.

But, thanks to the bold and determined enterprise of the Irrigation Department, the work of restoration has been going on apace since the middle of the year, and everybody concerned had been trying to finish it to schedule before the wet weather came on again. The result was that the work has been completed with success to everyone's relief. The cost to the Government is about 1½ million rupees.

Labourers engaged in rasing and repairing the damaged bund are seen working here. This section is being done entirely by manual labour since July, 1958



Sheep-foot tamper at work in background, consolidating the earth brought by bucket-sweeper to fill the tank-breach. Note, in front, the forest trees brought down and swept away by the floods and now lying leafless and in a state of decay



The tank, which has now about 7,000 acres under cultivation, is capable of irrigating over 10,000 acres under the Scheme—its present capacity being 16,120 acre feet. The water to this reservoir comes through the streams which deal with a direct catchment of 35 sq. miles. In times of high floods, the waters of the Mundeni Aru back up into the tank, and helps to fill it.

Fertile Fields

ANOTHER remarkable fact in this connection is that the water from the Rugam Tank is used to supplement the flow in Mundeni Aru when the river goes dry to feed the cultivation, which is done on the anicut system. The fields are very fertile, but the people of the area are very poor. For this reason, the speedy restoration, which has



Markings on the Rugam Tank rocks, showing the height of the flood-level in January 1913 and previous years. The two men seated above are drawing a white line above the 1913 level to show the record flood height reached in December 1957

just taken place, will serve as a great boon to the cultivators (not to mention the fishing folk), besides saving the Government a very heavy expenditure on Relief Work.

When I visited the tank recently, while the restoration work was in progress, I found that the breached area—bounded by the dry tank-bed (with flourishing cattle on it, but with only a few dwindled pools in the deeper parts scattered here and there on one side, and elephant-haunted jungle on the other)—presented a hive of activity. In addition to skilled manual labour being exclusively employed (since July last) to repair a section of the breach, large-scale machinery, in the shape of caterpillar-tractors with bucket-scrapers, sheep-foot tampers, water-bowsers, etc., was actively engaged in the main work.

While the manual labourers were busy raising and repairing a portion of the damaged bund, the machines were either bringing the earth, or levelling, rolling and consolidating it, or fetching water from the dwindled pools for moistening the new earth-fill for the consolidation of the bund—all acting in co-ordination to help to finish the filling and repair of the breach effectively and in good time. And the whole place, with



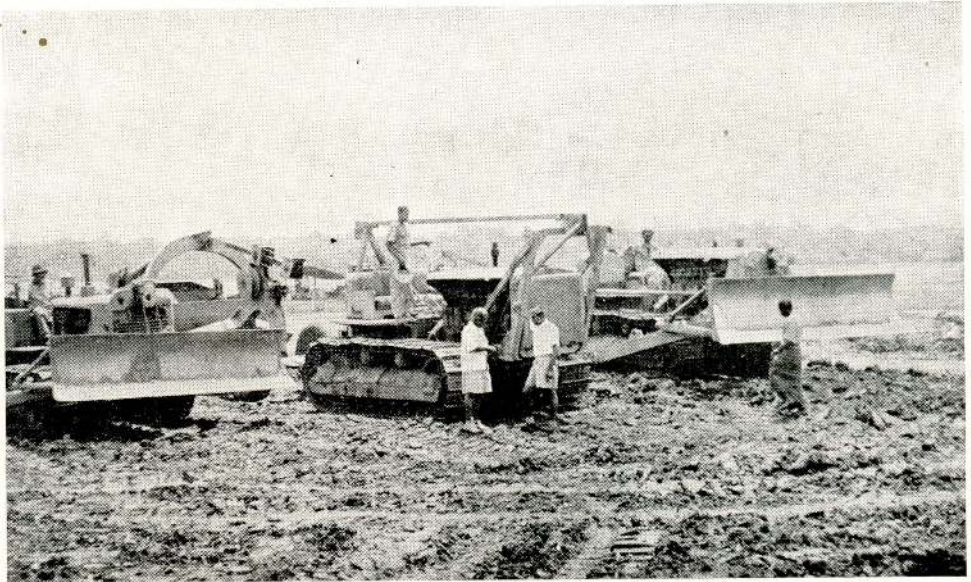
Caterpillar tractor, with bucket-scraper, at work in the gap. Behind (left) can be seen the Sheep-foot tamper rolling and consolidating the earth



The spill structure (left) of the Rugam Tank. The water for irrigation is impounded in the tank to the left of this spill, over which the flood waters leap. The picture shows conditions in dry weather when the tank is not full

all its noise and bustle of heavy machinery, looked like a miniature Gal-Oya Scheme—with this difference that the entire work was manned by trained Ceylonese personnel. The Divisional Irrigation Engineer, the Construction Engineers and other technical staff were all there to inspect or supervise

Tractors and bucket-scrapers in action to fill the breach. In the background, the Rugam Tank bed fringing the jungle-girt village can be seen



Sheep-foot tamper being used for rolling and consolidating the earth in the Rugam Tank breach



the various field-operations. The Deputy Director of Irrigation too, had visited the spot some weeks before to see that everything was going well according to plan.

It may be mentioned that all repair work was originally planned to be completed long before the onset of the North-East monsoon. But, due to the Emergency created by the recent racial disturbances, all hopes of finishing the work for the next cultivation

were shattered, and local opinion was very doubtful of the work being completed, or even given a start, this year. But, despite scepticism, and even the sneers of a section of the local populace, the Government took up the work bravely, employing, first of all, a large manual force. The manual work progressed so satisfactorily that hopes were again entertained. And now it is an accomplished fact.

Gods in Buddhist Texts

ALEC ROBERTSON

THE remarkable story of the Lunawa devala published in the September issue of *Ceylon Today* makes this subject topical.

As the Buddha denies the existence of an Almighty, Eternal God, a Creator, it may seem paradoxical to speak about gods in the context of Buddhism. But the gods in Buddhist texts are neither almighty nor eternal: they are, like human beings, subject to the laws of Nature—karma and rebirth.

Gods and Brahmas, besides Gandhabbas, Assuras, Yakkhas, Kumbandhas, Nagas and a host of other celestial and terrestrial non-humans of diverse types figure prominently in the Sutta Pitaka. They are credited with supernormal powers of varying degrees. For instance, Maha Brahma, the chief of Brahmas, could illuminate a thousand world systems like our own world system with the radiance of his little finger! Sakka, the king of gods of Tavatimsa heaven, could vanish from his abode and land on earth in any disguise "as easily as a strong man might shoot out his arm"! In the time of the Buddha, some of these celestial worthies imagined that they possessed greater psychic powers than the Buddha himself. A story is told in the Brahmanimantanika Sutta of the Majjhima Nikaya of how the Buddha encountered Baka Brahma in the latter's celestial mansion and neutralized his psychic powers. Another interesting story is told of how Moggallana the Great, one of the two chief disciples of the Buddha, on a visit to Tavatimsa heaven, by his marvellous psychic powers, shook Vaijayanta, Sakka's mighty palace so violently that Sakka and his retinue trembled from head to foot. After Moggallana had left, the goddesses of Tavatimsa enquired of Sakka whether Moggallana was his teacher.

A life-span is allotted to each of the abodes of these gods, Brahmas and other non-

humans. It cannot be reckoned in years, for it is given in incalculable kalpas or aeons. A Buddha's appearance on earth is rare. In the present kalpa, there have been four Buddhas so far, and a fifth will appear before the dissolution of our world system, and the evolution of the next world system. From this the length of a kalpa may be imagined. These beings live so long that many of them imagine themselves to be eternal.

Six Classes of Gods

SIX distinct classes of gods are specified in Buddhist texts, occupying six different heavens. In the heaven nearest to earth live the Four Great Regents—Dhatarattha, king of the east, Virulhaka, king of the south, Virupakkha, king of the west, and Vessavana, king of the north—and their respective retinues, guarding the four quarters. Just above it is the Tavatimsa, where Sakka rules. Above it are the heavens of Yama gods, Tusita gods, gods of creation, gods who exercise power over the creations of other gods, in that order. Above all these are 20 realms of Brahmas with Maha Brahma as their chief. Apart from these, there are five Pure Abodes where the Never Returners reside. These are beings who, having on this earth attained the fruition of all but the last step to Arahatsip of sainthood, are striving for final Deliverance. Upon their death they are not reborn but attain the bliss of Nibbana. Hence the term Never Returner. Our own world teems with invisible spirits, both benevolent and malevolent.

Of all these non-humans, Brahmas occupy the highest place for they are free from many of the defilements which the Buddha has enunciated and are benevolent. There are numerous instances where Brahmas attained



The God Vishnu

Arahatship or sainthood of Buddhism. Brahma Sahampati attained the third step to sainthood. Gods are not always benevolent and are classed as yakkhas. Even Sakka is described as yakkha. They are not free from the three deadly evils of lust, ill-will and stupidity. After listening to a sermon by the Buddha entitled Sakka-Panha Sutta, Sakka attained the first step to sainthood. He looks down on earth on full moon days and bows down his head to human beings who practise virtues and records their meritorious acts in a golden book. At his special request the Buddha has enjoined his followers to transfer the merits of their good deeds to gods and other non-human beings. Stories of the Buddha's previous births contain numerous references to Sakka's intervention in wordly affairs. He has helped Bodhisatta or aspirant to Buddhahood in the latter's countless births.

In the Buddha's Life

GODS and Brahmas have filled important roles in the life of the Buddha. At the birth of the Buddha-to-be, Maha Brahma and Sakka with their respective retinues were there to minister to him. They were there when he attained Full Enlightenment, Brahma Sahampati inviting him to proclaim his doctrine. They were there with 33 crores of gods and Brahmas when he preached his first sermon. They were there when he died. At the moment of the Buddha's passing way, Brahma Sahampati uttered the following stanza :—

They all, all beings that have life, shall lay
Aside their complex form—that aggregation

Of mental and material qualities,
That gives them, or in heaven or on earth,
Their fleeting individuality !
E'en as the teacher—being such a one,
Unequalled among all the men that are,
Successor of the prophets of old time,
Mighty by wisdom, and in insight clear—
Hath died !

Sakka followed with the stanza given below :—

They're transient all, each being's parts and powers.

Growth is their very nature, and decay.

They are produced, they are dissolved again :

To bring them all into subjection—that is bliss.

(Prof Rhys Davids's translation)

A graphic account of gods is given in blank verse in a Sutta in the Digha Nikaya entitled Maha-Samaya or the Great Concourse. Once the Buddha was dwelling in the Great Wood in Kapilavatthu with 500 Bretheren, all Arahats or saints, when one night gods from 10,000 world systems gathered there to see the Buddha and the Bretheren. The Buddha gave the Bretheren the number of gods in each group, the names of chief gods and their realms and their descriptions. The whole Sutta is devoted to these details. After the preliminaries, the Sutta begins thus :—

Seven thousand Yakkhas of our country's soil,

Of wonderous gifts and powers exceeding great,

And comeliness, and splendid following,
Are come rejoicing to the forest glade,
To see the bretheren met together there.

The Sutta proceeds to give details about the rest, almost all the stanzas ending with the last two lines of the above. The names of principal gods mentioned are Vessamitta, Kumbhira, the Four Great Regents, Maya, Kutendu, Vetendu, Vitu, Vitucca, Candana, Ramasettha, Kinnughandu, Nighandu, Panada, Opamanna, Matali, Cittasena, Nala, Janesabha, Pancasikha, Suriyavaccasa, Eravana, Namuci, Soma, Vishnu, Sakka, Varuna, Accuta, Anejaka, Suleyya, Rucira, Vasavanesi and Pajunna. Gods of all the six heavens and Brahmas of all the Brahma realms headed by Maha Brahma himself were present. The reference to Maha Brahma runs thus :

Then Tissa, the Eternal Youth, and with Him Paramatta and Subrahma, sons,

Of the Potent One, came to the congress-wood.

Great Brahma, suzerain of thousand words
In Brahma-heaven, has thither been
reborn,

Mighty in power, and in shape awesome,
And vast, of great renown. Ten of his lords,
Each regnant o'er a Brahma-world, are
come,

And in their midst with all his suite comes
Harita.

(Prof. Rhys Davids's translations.)

The Diga Nikaya

ANOTHER Sutta in which gods, particularly Gandhabbas and Kumbandhas, figure prominently is recorded in the Diga Nikaya. It is entitled Atanatiya Sutta or the ward-rune of the city of Atanata, a city inhabited by Yakkhas. Once the Buddha was staying near Rajagaha on the Vulture's Peak. The Four Great Regents with a great army of Yakkhas, Gandhabbas and Kumbandas went to the Vulture's Peak when the night was far spent, lighting up the whole mountain with their effulgent beauty. After saluting the Buddha, they sat down, and one of the Four Great Regents, King Vessavana, addressed the Buddha. He said there were Yakkhas, Gandhabbas and Kumbandhas of all ranks who believed in the Buddha and who did not believe in the Buddha. For the most part they did not believe in the Buddha because the "Exalted One teaches a code of abstaining from the taking of life, from theft, in chastity, lying and intemperance." They did not abstain from any of these things. To them that code was distasteful. Vessavana continued that these Yakkhas haunted forests where the Buddha's disciples and followers of both sexes meditated. He invited the Buddha to approve of this ward-rune which the Four Great Regents had composed so that Yakkhas might have faith in the Buddha. It would help the Buddha's disciples to dwell in forests at ease "guarded, protected and

unscathed". When the Buddha gave his assent, Vessavana recited the ward-rune. It begins thus :—

All glory to Vipassi, splendid seer !
To Sikhin of the tender heart for all !
To Vessabbu ascetic, wholly pure !
To Kakusandha, mill of Mara's host !
To Konagamana, perfected saint !
To Kassapa, in every way set free !
And to Angirasa the splendid son
Of Sakiyas who hath taught the holy Norm
Defeating and dispelling every ill.

(Prof. Rhys Davids's translation.)

After this adoration to seven Buddhas from Vipassi to Gotama, the ward-rune proceeds to give at considerable length details about the commanders of the Yakkhas, Kumbandhas and Gandhabbas, and extols the supreme virtues of the Buddha, ending each verse thus : "The Buddha do we worship, Gotama !" Having recited the ward-rune, Vessavana gave the names of the following superior Yakkhas from whom, he said, the Buddha's followers may seek protection whenever they were threatened by irascible, violent Yakkhas :—Inda, Soma, Varuna, Bharadvaja, Pajapati, Candana, Kamasettha, Kinnughandu, Nighandu, Panada, Opamanna, Devasuta, Matali, Cittasena, Nala, Raja, Janesabha, Satagira, Hemavata, Punna, Karatiya, Gula, Sivaka, Mucalinda, Vessamitta, Yogandhara, Gopala, Suppagedha, Hiri, Netti, Mandiya, Pancalacanda, Alavaka, Pajunna, Sumana, Sumukha, Dadhimukha, Mani, Manicara, Digha and Serisaka. After the Four Great Regents and the Yakkhas had left, the Buddha addressed the brethren thus : "Learn by heart, brethren, the Atanata ward-rune, master it and recollect it. This rune, brethren, pertains to your good and by it brethren and sisters of the Order, laymen and laywomen may dwell at ease, guarded, protected and unscathed".

Of all gods whose names appear in Buddhist texts Vishnu, the traditional protector of Buddhism in Ceylon, alone finds a place in Buddhist temples.

Self-Sufficiency in Rice

AS recently as 1949, the Government "Statistical Abstract" estimated Ceylon's average acre-yield of paddy at 14 bushels. This fantastic figure, which was Ceylon's official yield estimate less than a decade ago and which placed this country's rice yields among the lowest in the world, was derived by processing a series of "guesstimates" ultimately furnished by the grower himself. The low estimate that the peasant customarily provided of the yield of his field was blamed on various factors including the share system of tenancy and belief in the evil eye.

Credit for providing the first statistically satisfactory estimate of rice yields in this country must go to the Department of Agriculture. A random sample survey made by the Department's Botanist in 1949, on 49,000 acres in the Kandy, Kegalla and Ratnapura Districts, placed the average paddy yield in that area in the yala season, at 27.3 bushels per acre with a standard error of 2.5 per cent. An F.A.O. Statistician subsequently confirmed the correctness of the Department's conclusions. The rise in yields since 1949 has been steady but snail-slow. The average acre yield over Ceylon's total rice area was 33 bushels in maha 1956-57, and 32 bushels in yala 1957.

Ceylon's population in 1955 was estimated at 8,723,400. Using the 'low' population projection prepared by the Department of Census and Statistics on the basis of a persistence of the present mortality rates, and of a decline in the crude birth rate to 35.0 over the period 1955-65, and making allowance for emigration at the rate of 0.2 per cent., one may assume that at the end of the 5-year period commencing 1958, Ceylon's population would approximate 10 millions. Per capita consumption of rice over the period 1951-55 average 198 lb. per annum. The year 1953 was an exception;

reduction of the rice subsidy in that year depressed per capita consumption to 165 lb. per annum. Exclusion of 1953 value raises per capita consumption to 206 lb. per annum. For purposes of the present calculation, the figure of 198 lb. per capita per annum has been used.

The milling out-turn by weight of Ceylon paddies is 57.71 per cent. for raw rice, and 62-72 per cent. for par-boiled rice. The bushel weight of unawned paddies is rarely under 44 lb. and occasionally rises to over 50 lb. For the present calculations, the estimates adopted by the Department of Census and Statistics have been used, viz., a milling out-turn of 68 per cent. and a bushel weight of 45 lb. On this basis and at a per capita consumption of 198 lb. per annum, the requirements of a population of 10 millions would be 64.7 million bushels of paddy.

The physical aswedumized acreage in 1954-55 was 1,031,611 acres. The aggregate sown acreage in maha and yala in this year amounted to 1,346,824 of which 40 per cent. was single-cropped and 60 per cent. was double-cropped. The extent unsown in the two seasons was 716,398. The harvested acreage was 1,092,000.

It is reasonable to assume that, in normal years, an extent of not less than 1.3 million acres would be sown in the two seasons, and that 85 per cent. of this acreage, viz. 1.1 million acres, would be harvested. To provide the estimated requirement of 64.7 million bushels of paddy, an average yield of 58.9 bushels per acre would be needed.

Little Room for Pessimism

IN his recent study of rice production problems in this country, Dr. F. A. Clarenbach, U.N. Expert attached to the Planning

Secretariat, makes the disturbing deduction that "self-sufficiency in rice is highly improbably or well beyond the range of reasonable possibility for Ceylon in the next two or three decades—barring near miracles of science such as the application of new methods with low-cost nuclear power for construction of irrigation and flood control works and revolutionary developments in agrobiolgy and the technology of rice production". Yield projections provide the main basis of Dr. Clarenbach's argument. Even when his calculations were made at the "high" yield increase rate of 1.5 bushels per acre, the gap between requirements and production was depressingly wide.

Dr. Clarenbach's deductions must be blamed largely on the defective data made available to him. A critical analysis of yield potentials leave little room for his pessimism. The regression of acre yields on time is likely to be logarithmic at least in the early stages, and not rectilinear as Dr. Clarenbach assumes. The effects of improved practices cumulate geometrically, not arithmetically, and the simultaneous adoption of the whole range of improved techniques would find expression in prodigious yield increases.

In the final analysis, the yield problem in rice resolves into—

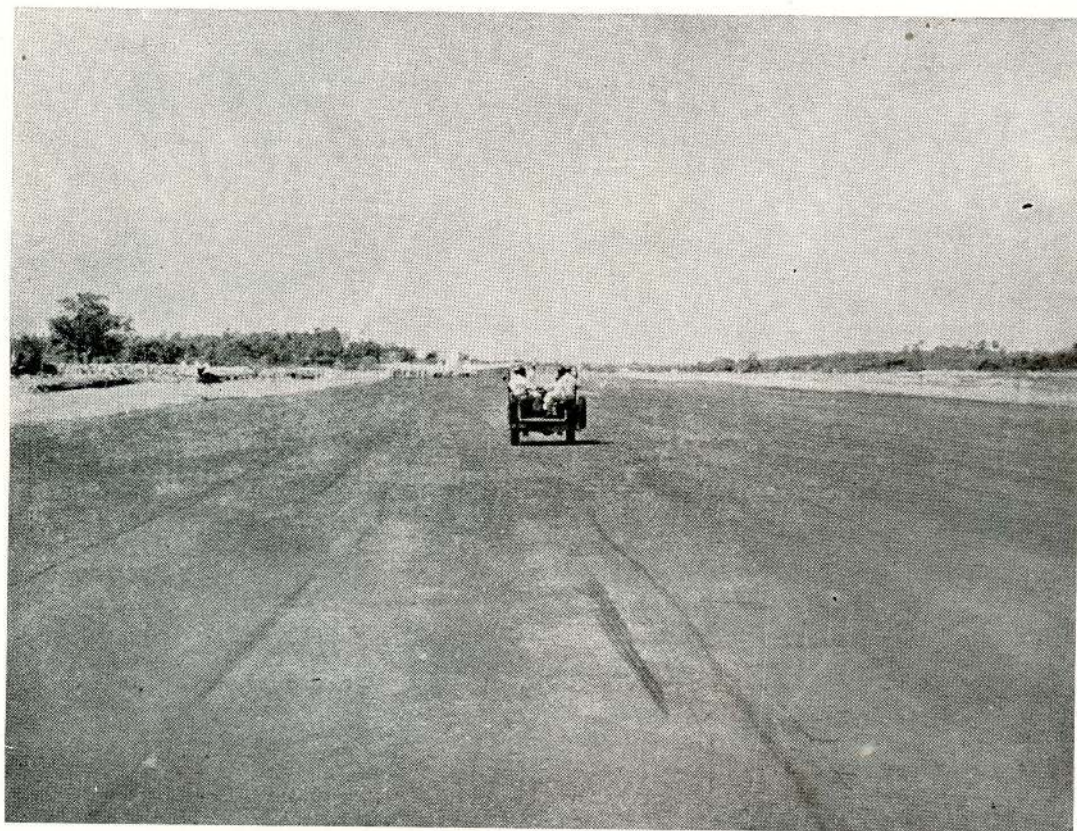
- (a) the use of optimum fertilizer dressing,
- (b) the use of high-response, blast-resistant varieties that permit the most efficient exploitation of fertilizers, and
- (c) the elimination of factors that obstruct efficient fertilizer action, e.g., weed infestation and precarious water supply.

Negative factors, e.g., the elimination of pest hazards, of course, demand attention, but it is evident that the rational and intensive use of fertilizers provides the most fruitful method of yield increase in rice.

The chief factors that have limited efficient fertilizer exploitation in the past have been the delay (a) in the mapping of rice soils for fertilizer response, and (b) in the breeding of high-response, blast-resistant strains. The Department is rapidly remedying both these deficiencies.

A study of the nitrogen response in rice reveals tremendous potentialities for yield increase. When the supply of phosphate is adequate, and high response varieties are used, the curve of response rises continuously to a maximum at about 60 lb. nitrogen per acre. The yield increase per lb. nitrogen applied ranges from 9 lb. 24 lb. paddy per acre, depending on the fertilizer response of the variety and the operation of limiting factors. It is anticipated that on nearly the totality of the 26,000 acres of asweddumized land that compose the major irrigation schemes, yield increases of 10-12 bushels would be possible with 40 lb. of applied nitrogen per acre if the right varieties are used. Moreover, even at present in certain areas, average yields approximate to the value needed for self-sufficiency. Acre yields of 55 and 58 bushels have been recorded over the total cultivated extent in the Polonnaruwa and Kegalla Districts. If these are achieved in the rest of the Island's rice acreage, self-sufficiency becomes a reality.

[Reproduced from the "*Tropical Agriculturist*" (Jan-Mar., '58), published by the Department of Agriculture.]



The Minister of Transport and Works inspecting the runway of the new airstrip by jeep

The Batticaloa Airstrip

Major A. J. HACKER, Royal Engineers
(Seconded for Service with the Army)

DURING the recent Emergency, the Government decided that an airstrip should be constructed at Batticaloa, with a view to opening up that area and including the town in the internal services of Air Ceylon.

It was appreciated that in the prevailing troubled circumstances the Army—through the Corps of Ceylon Engineers—had the best resources to carry out a task of this kind, if supported by Government Departments.

The mission given to Brigadier Anton Mutukumar, Commander of the Army, in the

middle of June, was to construct an airstrip 1,000 yds. long and 50 yds. wide by October 1, 1958 (about 100 working days). On June 19, 1958, I was present at a conference presided over by the Army Commander, and attended by the Chief of Staff, Royal Ceylon Air Force, Wing Commander R. Amarasekera, and the Director of Public Works, Mr. H. R. Premaratne.

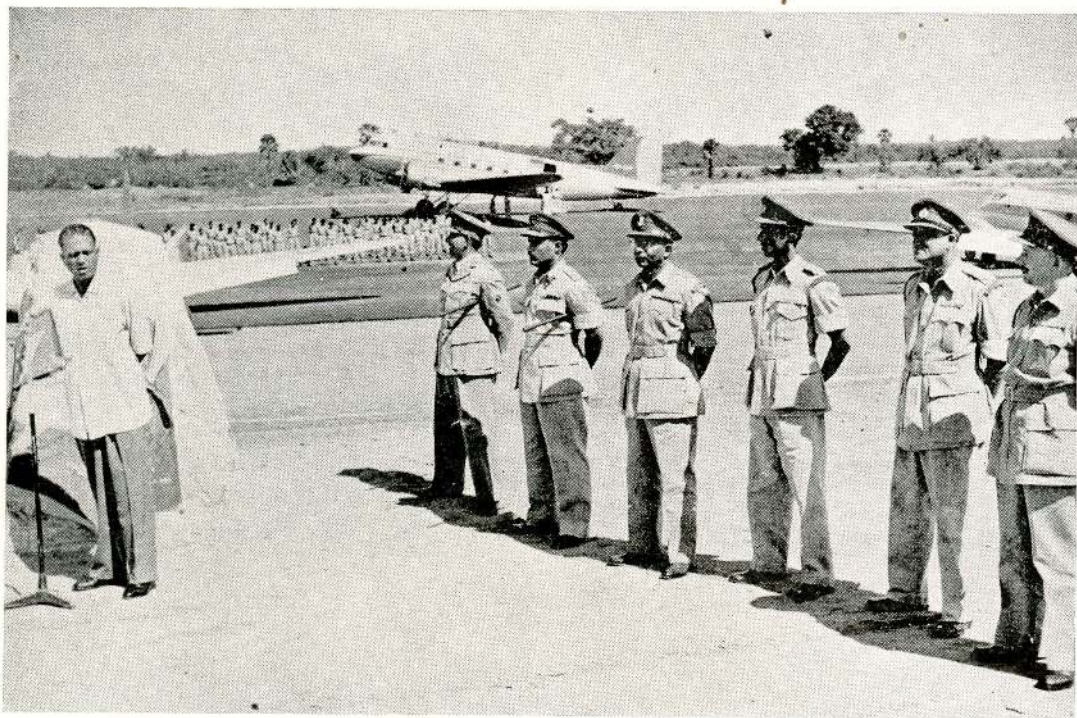
An outline plan was agreed upon and the following day, with Air Commodore G. Bladon, C. B. E., Commander of the Royal



◀ Soil stabilisation in progress. Gobble disc harrow mixing 'kabook', sand and water to form a base

▼ Mr. Maitripala Senanayake inspecting the commemorative pillar





The Minister speaking at the ceremony

Ceylon Air Force, I flew to Batticaloa to study the site from the flying and engineering points of view. The plane flew over the site and then landed at Amparai for us to move by road to Batticaloa. The alignment of the airstrip was agreed on, and instructions were issued to Major C. Jonklaas, O. C. (Volunteer) Plant Sqn. C. E., to move with earthmoving machines supplied by the Gal Oya Development Board, Amparai, to the site and start work on June 25.

Soil samples were taken and we flew them back to the Public Works Research Laboratories at Ratmalana for analysis. The design of the runway was completed by July 9, and drawings issued to (Volunteer) Plant Sqn. C. E., who had now been reinforced by (Volunteer) Field Sqn. C. E. personnel from Colombo. These two squadrons were at that time commanded by Major H. Alwis, C. E., O. C. 2 (V) Fd and Plant Regt. C. E.

At Army Headquarters I was placed in charge of overall planning of the work and co-ordination of the Army units with Government Departments. I assessed the amount of equipment and operational crews required and arranged for them to move to Batticaloa from all over Ceylon. A huge Barber Greene road layer owned by the P. W. D. was towed to Batticaloa by an Army tractor, P. W. D. granulators were moved by a giant Army trailer, and an Irrigation Department generator supplied electricity for night work under arc lights installed by C. E. Works Services personnel. Other equipment came from Kalmunai, Trincomalee and Colombo North by road and rail.

First Aircraft

ON July 28, I landed at Batticaloa in the first light aeroplane to use the airstrip. The

plane was piloted by Squadron Leader James Short, Royal Ceylon Air Force. Heavy rain stopped work for ten days in August, but by working at night it was possible to land the first twin-engined Dove aircraft on August 28. The aircraft was piloted by Flying Officer G. Goonetilleke, and I accompanied him as passenger.

The (Volunteer) Plant Sqn. C. E., operating heavy equipment, battled through September and October against heavy rains, working long hours when weather permitted. It is a great credit to all ranks of the C. E. squadrons and the P. W. D. crews with whom they worked that in spite of all adversities progress was maintained.

On November 4, I accompanied Captain George Ferdinand, Chief Pilot, Air Ceylon,

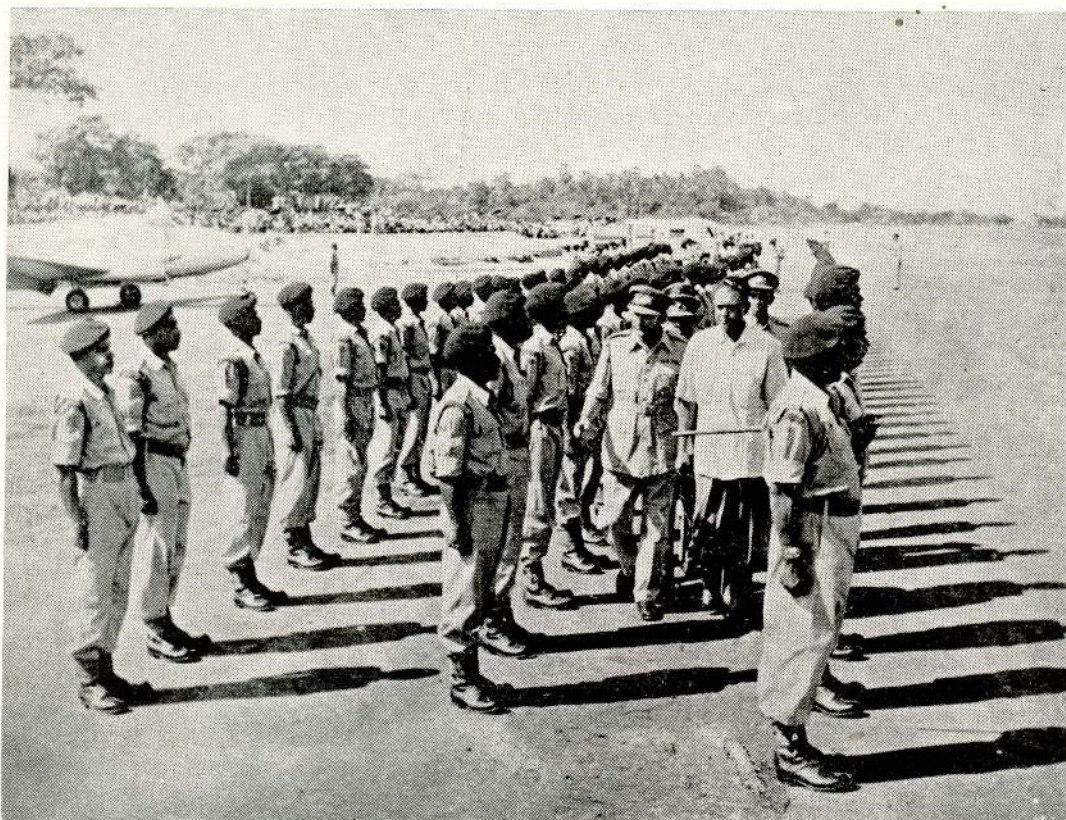
on a proving flight to Batticaloa to observe the reaction of the runway to the weight of the heaviest aircraft to land—a Dakota which normally carries 28 passengers and a crew of three. The proving flight was a success despite the fact that the aircraft hit a hawk in flight at a crucial stage of the landing procedure.

Shortly after, on November 7, the Minister of Transport and Works, the Hon. Maithripala Senanayake, accompanied by the Army Commander and Government Officials, attended a ceremony to mark the conclusion of the military work at Batticaloa. In his speech the Army Commander said :—

“When I undertook this job, I made it quite clear that it could not be done in the time stipulated unless I had the assistance of

The Air Ceylon Dakota in which the Minister of Transport and Works landed at Batticaloa on November 7





The Minister of Transport and Works, accompanied by Brigadier Anton Muttucumaru, Commander of the Army, inspecting a guard-of-honour on the airstrip

various Departments. It was clear from the outset that that assistance was forthcoming in abundant measure. The P. W. D., under the enthusiastic direction of Mr. Premaratne, helped not only to formulate the design of the airfield in the P. W. D. soils laboratory at Ratmalana but also produced much of the equipment and the crews, I should like to thank, in a special way, Mr. Sinnathamby, the Executive Engineer, whose energy and enthusiasm have been unfailingly placed at our disposal. The Gal Oya Development Board, with which we are so closely associated at Amparai, and the Irrigation Department let us have all the equipment we needed. The work on the site was backed by the workshop of the Gal Oya Board, the Government Factory, the Railway and the Survey Department. To all these Departments, I



Typical jungle in which the Batticaloa Airstrip was built. D8 Tractor, supplied by the Gal-Oya Board and operated by Volunteer Plant Squadron, Ceylon Engineers, felling trees

should like to express the gratitude of the Army for their encouragement and assistance given so ungrudgingly.



Overloader feeding Barber Green Road Laying Pre-mix Plough, supplied by P. W. D. and operated by P. W. D. crews and Army personnel

"I should also like to pay a tribute to the Royal Ceylon Air Force and Civil Aviation who were unsparing in providing aircraft for communication work and assistance in solving flying problems.

"On the military side, the main responsibility for construction fell on the Plant Squadron of the Volunteer Regiment of the Ceylon Engineers. They were backed by small elements from other Squadrons. All the military elements worked under the inspiring leadership of Major Jonklaas who saw to it that, no matter what the odds were and I can assure you there were several, my wishes were carried out. His was the greatest single contribution to this achievement. I was fortunate in having two other officers who played a significant part—Major Hacker, a R. E. officer seconded to the Army in Ceylon, who performed the difficult task of technical liaison between my Department, Colombo Departments and the local field organisation with credit, and Lt.-Col. Udugama who was in overall control of the entire effort.

"The fact that such a large undertaking was completed in such a short space of time

is a lasting tribute to the splendid teamwork and co-operation between the numerous individuals who executed the job. Technician and non-technician, civilian and soldier, senior and junior—all teamed up with the burning desire to get on with the job, after working 24 hours in the day to make up time lost through bad weather. At a time when this lovely little land of ours is being rent by strife and bitterness, I am proud to have been associated with a project in which Sinhalese, Tamil, Burgher and Muslim worked together towards a common goal.

"Their efforts will inevitably benefit the people of Batticaloa, and its environs. We leave behind this airstrip as a sample of our work and as a token of friendship. May the airstrip bring much benefit to the people of Batticaloa and this province."

Minister's Reply

IN reply, the Minister said that the Government had decided to open that airstrip in order to provide the facilities for an internal air service connecting Batticaloa with the rest of the country. As soon as the radio connections and the necessary buildings were put up, Batticaloa would be included in the internal air service.

The great work done by people of various communities who built the airstrip would give us in this little country the example to get on with developing our country unitedly.

He added: "I have just returned after a trip abroad, and I have come back with certain ideas for the development of air travel in our country. I have found that Air Ceylon is popular in the world of aviation and has made a name abroad. I intend to extend within the country quicker modes of travel.

"I wish to pay special tribute to the Army for the wonderful work done; and for the wonderful manner in which they completed the assignment given them in record time.

(Continued on page 32)

Soil Conservation in Ceylon

THE National Soil Conservation Week (November 9-15) programme was organised by Government as a result of the national catastrophes such as floods, alternating with droughts, which have recurrently occurred in our country. The severe damage to life and property and to the nation as a whole as a result of these catastrophes has led to the Government taking a positive course of action in preventing them.

This course of action worked out by the Government itself is carefully planned and closely co-ordinated by its members. The programme in general is to develop the land surfaces of this country in future on a basis of watersheds or river valleys. This has been found to be necessary in view of the fact that most of the damage caused by floods has been confined to such units.

Secondly, this programme takes into consideration the division of land on a natural drainage pattern. The existing division of Ceylon into civic units such as villages, wasamas, korales, and the like fall within the greater natural unit which is the catchment of the river valleys, so that the feeling of oneness between the communities living within the valley will be more strongly fostered.

Watershed Development

THE broad outlines to this programme to give effect to the idea of watershed development was heralded this year by the framing of a draft Water Resources Bill and the appointment of an Inter-Departmental Committee by Cabinet under the Ministry of Lands and Land Development.

This was closely followed by having the Mahaweli Ganga surveyed by a team of American specialists to determine suitable

sites for constructing dams or reservoirs to hold back the flood waters in rivers. A team of Russian specialists was engaged to survey the Malwatu Oya, Kalu and Kelani Gangas with the same purpose in view. The rivers in the dry zone have already been developed by the ancient kings of Ceylon for this purpose, and are being restored.

In deciding to build large reservoirs or dams to store water, the Government has also had in view the use of such water by the Ministries of Health, Local Government and Home Affairs as sources of supply of water for domestic purpose such as drinking, health and sanitation. The water could be regulated to prevent drought too. The stored water could be used by the Ministry of Transport and Works for providing cheap electricity to the population of this country. It could be used for industry. The water could, again, be used for irrigation to grow the food requirements of this country.

As the land surface of Ceylon is opened up, year after year, by the Ministry of Lands and Land Development to settle the landless population of this country in them to grow the food requirements of our increasing population, the greater are the problems of erosion and silting.

The Ministry of Agriculture and Food on the other hand makes observations on these problems of erosion as a result of opening up virgin land for agricultural development so that basic information might be provided to the Ministry of Lands and Land Development in order that these problems might be eventually brought under control.

Secondly, the Ministry of Agriculture and Food is hoping to provide every landowner with a Soil Conservation Work Plan for his holding which contains a list of conservation measures which should be adopted in conserving soil.

In the case of areas already developed in agricultural crops the procedure adopted is to make surveys of the factors which contribute to erosion and methods which are effective in preventing it. This information is tabulated and a work plan containing this information for adoption is issued to the landowners. Technical aid is given by the field staff in assisting the public in adopting the measures.

At the same time investigations are being conducted continuously at the different research stations to determine more effective measures of conservation to be disseminated to the public.

Finally, the Multi-purpose Co-operatives are being organised with a view to giving greater assistance to the public in developing their agriculture at a faster pace.

Educating the People

IN view of the fact that the conservation measures have to be adopted by landowners under the advice of Government it becomes necessary for the Government to educate the entire population of the conservation programme it has in hand. For this purpose a National Soil Conservation Week programme is organised by the Ministry of Agriculture and Food during the eve of the biggest rainfall season experienced throughout the country. Accordingly it is organised during the eve of the Maha or North-East monsoon rains during October and November each year. This affords a wonderful opportunity for the public to observe with their own eyes some of the problems of erosion publicised at the meetings.

The methods of propaganda used are those of broadcast talks by the members and technical officers of the Government. These talks outline the broad steps being taken by government to solve the problems of erosion. In addition to this public meetings are held during the week in various villages in the island at which members of the community and members of Government

departments address the public on the importance of conservation.

Demonstration plots are constructed close to the meeting places in order to instruct the public in the action to be taken in preventing erosion. Posters, Placards and Photo-Bulletins are also on display giving further information as to what should be done to conserve soil. Film shows are also organised at the end of the public meetings with the same purpose in view.

On November 9 the Prime Minister inaugurated Soil Conservation Week with a broadcast over Radio Ceylon. Here is what he said :

It is my pleasant duty this evening to inaugurate the National Soil Conservation Week organised by the Government in order to draw attention to the vital need to conserve our soil resources. One striking example of the results of uncontrolled soil erosion and neglected soil conservation was the tragedy that overtook a large part of this country in the floods of December, 1957. The suffering and losses to individuals as well as the setback to the national economy are too well known to need repetition. It will thus be seen that any unprecedented rain will result in soil erosion and loss to life and property and damage to the national economy.

It is my earnest request, therefore, that everyone, as far as possible, should try to attend some of the public meetings organised by the Government during this week and learn the importance of conserving the soil resources of our country for our economic prosperity. An effort should also be made by as many as possible to take some practical steps of soil conservation on their own lands. I have to point out that besides this programme the Government is taking several other steps to prevent the recurrence of damage to property and loss of life by floods. One of them is the formation of a Water Resources Board under the Ministry of Lands and Land Development. This Board, will be entrusted with the important functions of the

development and utilisation of our water resources, the planning of multi-purpose dams, the provision of hydro-electric power, irrigation facilities and water for various towns and other local authorities.

Another part of the Government's programme in preventing damage to land through soil erosion consists of steps to prevent rain water from moving across your land. This programme is referred to as "land treatment measures" as opposed to "structural measures" outlined earlier.

I think you would have realised, from what I have said, the importance of the Soil Conservation Campaign which is being inaugurated today. I earnestly appeal for the active co-operation of all of you in this campaign not only for your own benefit but for the benefit of the country as a whole.

Food Minister's Speech

ON the following day the Minister of Agriculture and Food, Mr. D. P. R. Gunawardena, gave the following message :

The National Soil Conservation Week this year has particular significance : the havoc caused by the disastrous floods in the last *maha* season is fresh in our minds, and the need for energetic and concerted national action is urgently felt. It has become abundantly clear that faulty land use and the consequent inefficiency of soil conservation measures contributed considerably to this damage. During the course of the ensuing week, the Department of Agriculture will present over the radio, on public platforms and in the press, an exposition of techniques which would promote effective soil conservation. The present policies of land development, however, need drastic revision if these techniques are to operate with the fullest efficiency.

I have no doubt that if modern agricultural methods are adopted on the totality of Ceylon's cultivated acreage, the resulting expansion in food production would keep

pace with this country's population increase for many years to come. But the best of methods would achieve little if the soil, which makes agriculture and life possible, is not effectively conserved.

Unless land development is preceded by natural resources surveys, and unless it conforms to principles of rational land use, efficient soil conservation is difficult to ensure. Serious soil loss in colonisation schemes has resulted from the failure to appreciate the concept that the smallest unit in land-use planning must be a whole catchment. Schemes like the Parakrama Samudra, where Government has been obliged to write off over 200 development allotments and where the loss to the country has amounted to nearly four million rupees, illustrate the dangers that attend the piecemeal restoration of irrigation works. Not only does erosion that follows faulty land use continue to convert rich land into barren wastes, but silt accumulations rapidly render reservoirs unusable. The desire to stem these disastrous trends has prompted the creation within the Department of Agriculture, of a Division of Land Use Planning. This Division has assumed the responsibility for providing the entire Island with an integrated land and water use plan based on soil, vegetation and climatological surveys.

There is a further fact that I wish to stress : implicit in the principle that entire catchments form the ultimate units in soil and water conservation is the need for unified control of hill-side forests which regulate run-off, and of the farms on the valley floor which this run-off irrigates or inundates. A nation's land must compose an integral unit subject to a common land policy. Wanton felling of forests has probably been the prime cause of the alternating droughts and floods that have ravaged this country in recent years. A rational system of land use envisages not merely the management of the arable area, but the protection of the tree cover in the watershed. The interdependence of farm and forest needs no emphasis.

Considerations of correct land use become particularly important in relation to the 3.6 million acres of agricultural land in the Dry Zone still awaiting development. Soils in this region are extremely vulnerable and conservation measures must ensure not merely an elimination of physical movement of the soil but a preservation of its structure.

Research at Maha-Illuppallama has shown that the soil pulverizing implements traditional to temperate agriculture may cause almost irreparable damage to the structure of dry zone soils. Implements and tillage techniques appropriate to dry zone soils have been developed at Maha-Illuppallama, and have been recommended for general use.

Moreover, in recent years, there has been in the Dry Zone, a shift of emphasis from arable cropping to animal husbandry. It is estimated that an extent of 1.8 million acres in the Dry Zone is suitable for pasture establishment and for the development of animal husbandry. It is gratifying to note that in this area, the cover that pasture grasses provide would achieve almost complete conservation of the under-lying soil.

Land Minister's Speech

ON November 11 the Minister of Lands and Land Development, Mr. C. P. de Silva, gave the following talk over Radio Ceylon :

Today is the third day of the National Soil Conservation Week programme, organized by the Government of this country, to instil in the minds of the public, the value of conserving the soil resources of our country.

Under natural conditions, the forests and the grass that cover the land conserve both the soil and the rain water that falls on the land. But mankind in order to live has to clear and cultivate the land, and human activity, upsets the balance of nature. The removal of the forest cover makes the rain water run off rapidly carrying with it the precious 9 inches of top soil that sustains agriculture. It is, therefore, necessary to con-

serve both the soil and the water. These two go hand in hand. Soil conservation measures help the land to absorb the rain water that falls on it, and the water so conserved gives a steady flow to our streams and is available to the plants in dry weather.

The battle to conserve the soil and water resources of the country starts with my Ministry. It is the Lands Ministry that opens up the Virgin land for the settlement of the ever increasing number of unemployed and to meet the requirements of a rapidly increasing population. The old methods of jungle clearing and the development of the land alienated to peasants have been considerably modified and stress is now laid on soil conservation and the planting of the land adopting modern techniques. We must get the maximum production from the land that is opened up whether it is under Paddy, Tea, Rubber or Coconuts.

Accordingly the technical and supervisory staff of the Land Commissioner's Department has been almost doubled in strength this year, and peasant allottees will now receive the necessary supervision and technical advice. Adequate financial provision has also been made to assist peasants to take adequate soil conservation measures and to plant their lands scientifically using the best seed materials. The increasing demand for land from the peasantry as well as the frequent floods and droughts which afflict our fair country makes it necessary for us to have a scientifically worked out plan for the development of our land and water resources. This matter has received the careful attention of the Planning Division of the Irrigation Department assisted by foreign experts during the last 2½ years. The Island has been divided according to River Basins instead of Administrative districts, and the monthly and annual run off from the rainfall in each River Basin has been worked out. Sites have been selected for the construction of reservoirs adequate in capacity to store the flood water in each River Basin and also for the re-use of this water.

In the Dry Zone

SPECIALLY in the Dry Zone the areas which will be developed under each Reservoir has been located, and the necessary Forest Reserves for the protection of the Reservoirs as well as the ranges of hills which separate River Basins have also been marked out. Adequate forest land is available to safeguard the climate and the rainfall of the country and to meet its timber requirements.

The location of Reserves is more or less fixed by geography but the Irrigation Department in selecting the actual sites for these dams has looked into the hydro-electric potential of each. The storage of water for irrigation, flood control, generation of hydropower and land usage naturally go hand in hand and have to be worked out and controlled by one single agency in the interests of efficiency and economy.

A map of the Island showing this data is now being produced by the Survey Depart-

ment and will be available to the Water Resources Board which will be created at the end of this year.

The plans for the development of 4 of the most important River Valleys, namely, those of the Mahaweli Ganga, Walawe Ganga, Kelani Ganga and Malwatu Oya have received special attention and agreements have been entered into with the U. S. A. in the case of the Mahaweli Ganga and Walawe Ganga and with the U. S. S. R. in the case of the Kelani Ganga and Malwatu Oya. This is the best that we could have done. Today we have in this country two Teams of American and Russian Engineers and Technologists working on these schemes. But the planning and construction of these large works take time.

No amount of planning on the part of the Government or foreign aid can achieve results of this magnitude without the united effort of the whole nation.

THE BATTICALOA AIRSTRIP

(Continued from page 27)

I also wish to thank the officers of the P. W. D. who gave of their best efforts. The construction of the Batticaloa airstrip by the combined efforts of the Army and the civilian services will be precursors to future efforts which will be made to undertake other development projects, with the united efforts of the Army and the civilian services.

"This scheme will be tried out soon in regard to Anuradhapura airstrip and the opening of roads in the upcountry leading to areas of the Kandyan peasantry among others.

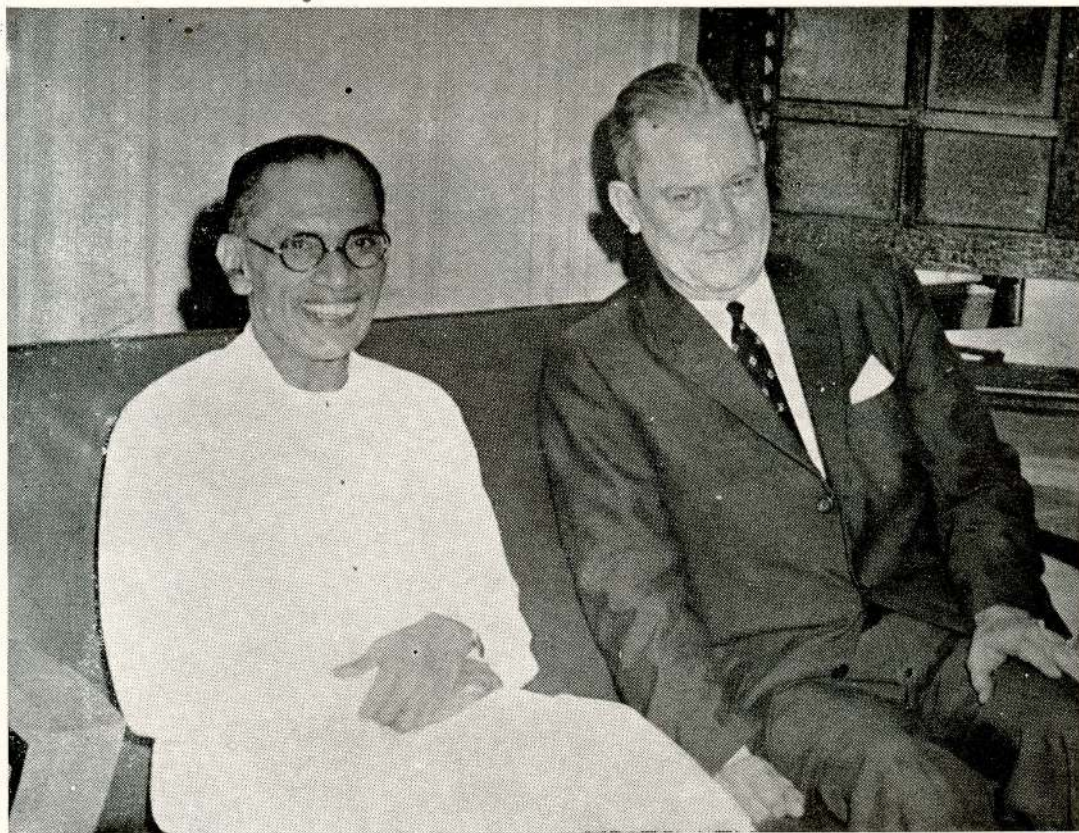
"The Brigadier of the Army has kindly pledged his whole-hearted co-operation in this venture which has given birth to the construction of the Batticaloa airstrip."

The Minister, speaking next in Sinhalese and after that in Tamil, appealed to the

people to prove themselves sons of the same mother. He was speaking in Tamil as he had received his education in Jaffna and was no stranger to the Tamil community. Carrying all along the bitterness born of the recent disturbances would not help the country to progress and the times called for the united effort of all people to make Ceylon prosperous.

The Minister then unveiled a commemorative pillar which had been erected on the site to commemorate the achievement of constructing an airstrip in 98 working days—2 days under the target figure.

The last Army Engineer unit was withdrawn from the site on November 15, and the airstrip is now being maintained and developed by the Department of Civil Aviation.



The new Ambassador for the U. S. A. in Ceylon, His Excellency Mr. James Lampton Berry, with the Ceylon Premier on whom he paid a formal call on November 21st

Foreign Affairs

THE Prime Minister of Canada, the Rt. Hon. John G. Diefenbaker, Mrs. Diefenbaker and party were the guests of the Government of Ceylon from 24th to 27th November and were given a tremendous welcome by the people of Ceylon wherever they went during their short stay in Ceylon.

The Canadian visitors were met at the Ratmalana Airport by the Prime Minister Mr. S. W. R. D. Bandaranaike, the Leader of the Opposition Dr. N. M. Perera, members of the Cabinet, members of the Diplomatic Corps and other V. I. Ps. From the Airport

Mr. Diefenbaker and party drove in state along Galle Road to Queens House, the residence of the Governor-General. All along the way thousands of people had gathered to welcome the visitors.

The same evening Mr. Diefenbaker called on the Prime Minister at his residence at Rosmead Place and later was the guest of honour at a reception by the High Commissioner for Canada in Ceylon, and at an Official Dinner by His Excellency the Governor-General at Queen's House.



Mr. Diefenbaker at the joint luncheon given in his honour by the President of the Senate and the Speaker of the House of Representatives. Seated left to right are the Hon. C. P. de Silva, Minister of Lands and Land Development and the Leader of the House of Representatives ; Dr. N. M. Perera, Leader of the Opposition ; Mr. Diefenbaker ; Sir Cyril de Zoysa, President of the Senate ; Mr. H. S. Ismail, Speaker of the House of Representatives ; and the Hon. S. W. R. D. Bandaranaike, Prime Minister of Ceylon

Visit to Kandy

THE following day the Canadian Premier and party left by train for Kandy. During their stay in Kandy they visited the Sri Dalada Maligawa and the University of Ceylon at Peradeniya. Mr. Diefenbaker also planted a commemoration tree at the Royal Botanical Gardens.

On Wednesday Mr. Diefenbaker and party returned by car to Colombo. The Canadian Premier called on the President of the Senate, the Speaker of the House of Representatives and then had a discussion with the Prime Minister, Mr. S. W. R. D. Bandaranaike, at his office in the Senate Building.

the House of Representatives. Speaking at the luncheon the Prime Minister, Mr. Bandaranaike said that Canada had given Ceylon great assistance through the

The Canadian Premier having talks with the Hon. S. W. R. D. Bandaranaike, Prime Minister of Ceylon



Joint Luncheon

AT noon the same day Mr. Diefenbaker was the guest at a joint Luncheon given by the President of the Senate and the Speaker of

Colombo Plan scheme in the fishing industry, the electrification of rural areas, rural road construction, transport and several other fields. This assistance was ungrudgingly given and was of even greater value since Canada had nothing to gain from it. "Assistance with strings" did not apply to Canada for all she expected was the friendship, understanding and goodwill of the countries of Asia and other under-developed areas.

The Ceylon Premier referred to the part played by Canada in contributing towards peace and stability in the world after the last war. In discussion he had had with the Canadian Prime Minister, Mr. Bandaranaike said that he had outlined some of the problems facing Ceylon.

Dr. N. M. Perera, the Leader of the Opposition, who followed Mr. Bandaranaike, said that Ceylon was deeply grateful to Canada for the assistance she had given in spite of the serious problems that face her. Dr. Perera said that it was a pity that Mr. Diefenbaker did not stay longer in Ceylon to see more of the country and to see what was being done in Ceylon to provide the people with the bare necessities of life. Mr. Diefenbaker would have observed during his tour the efforts being made to raise the stature of human beings in the under developed countries yearning for peaceful development which, he said, could be achieved only by peaceful international co-operation.

Canadian P. M. Replies

IN the course of his reply Mr. Diefenbaker reiterated his belief in the need for international co-operation in the economic field as a responsibility imposed upon mankind to assist his fellow being. This was the principle observed by Canada in the projects she had associated with in the Colombo Plan on which she had already spent 250 million dollars. It was in this spirit Canada treated the Commonwealth, for in co-operation, he said, there is strength.

Mr. Diefenbaker said that there were certain clear differences between Ceylon and Canada, in racial origin, geographically, and in their respective economic capacities. But this difference, he said, did not interfere with the principle of co-operation and mutual assistance which constituted an unifying force such as there existed in the Commonwealth.

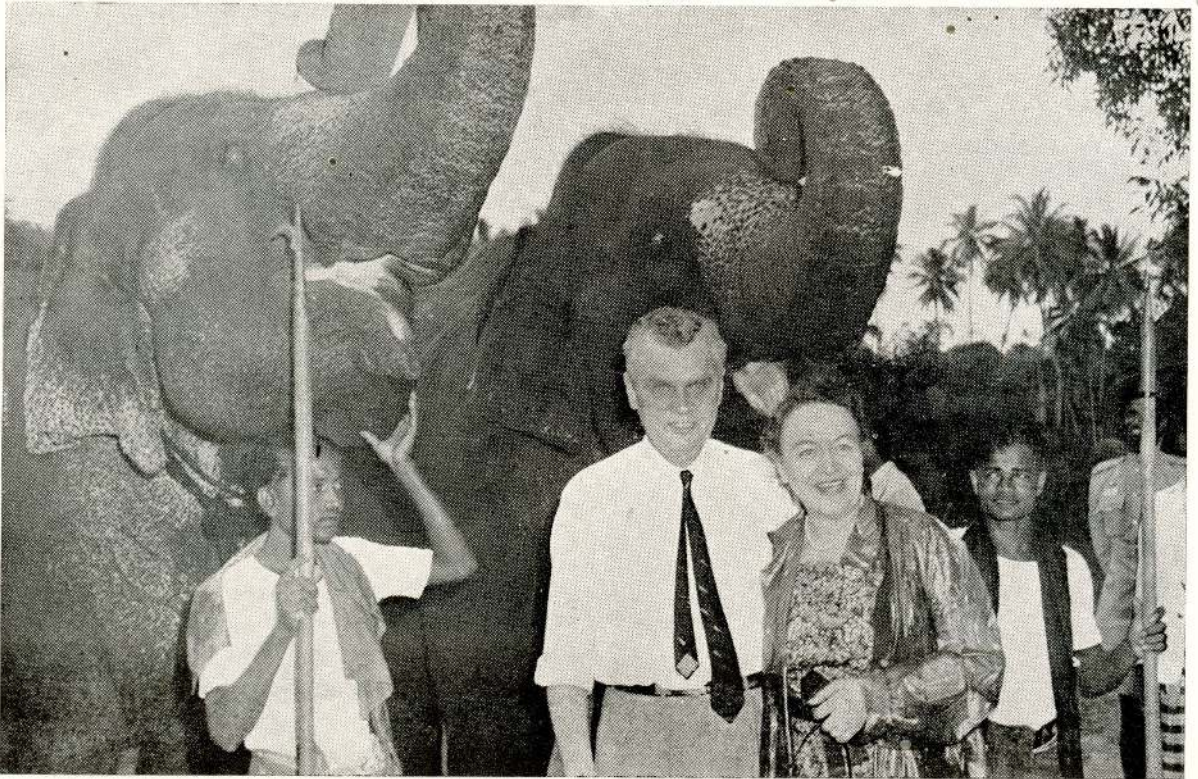
The Canadian Premier said that he had undertaken that tour of Asian countries to discover not merely the conditions of the people of those parts but also to discover the concepts and guiding forces that constituted them.

Press Conference

LATER that afternoon the Prime Minister held a Press Conference at "The Temple Tress" and also visited the Instituted of Practical Technology at Katubedde which is being constructed with funds supplied by Canada.

At the Press Conference, after a few pleasantries, Mr. Diefenbaker said "I want to say how very much I appreciate visiting this country. This beautiful Island symbolises two things for us in Canada. The good relationships consequent on the Colombo Plan and the Commonwealth. I am now half-way round on a 35,000 mile tour of the Commonwealth countries. I have particularly emphasised the position of the Asian countries by remaining in the Asian countries of the Commonwealth for the longer period. I have been to Pakistan and India, and from here I will go to Australia and New Zealand.

I want to say how glad my wife and I are to be here, and whatever kind of co-operation we can offer to Ceylon we are most anxious to do so without in any way implying or having in mind the imposition of any new pattern of life. The new plan we have in mind is to raise economic standards. As far as Ceylon is concerned, we want to express



▲ The Canadian Premier and his wife with elephants at Kandy. The visitors spent nearly an hour watching elephants and chatting with their keepers



◀ The Canadian Prime Minister and wife at the famous Temple of the Tooth, in Kandy, Ceylon

our appreciation of the warmth and kindness we have received everywhere. It seems indescribable, the warmth and the attitude of the people.

I came to learn, to understand, and also to do whatever I can to bring about a further realization among the nations of the Commonwealth that we have something to offer to mankind, made up though we are of different religions, races and separated by five continents. There is a feeling of unity among us and I feel in your country, as I felt in the countries I visited, that spirit of friendliness, co-operation and, above all, the feeling that we have within the Commonwealth achieved the assurance of peace.



▲ Mrs. Diefenbaker (right) looking out of the train which took the visitors to Kandy, the ancient hill capital of Ceylon. With Mrs. Diefenbaker is Mrs. Nik Cavell, wife of the High Commissioner for Canada in Ceylon. In the distance is "Bible Rock", so called because it resembles a closed Bible

Mr. and Mrs. Diefenbaker being greeted on arrival by the Hon. S. W. R. D. Bandaranaike, Prime Minister of Ceylon. Also in the picture are Shiranee, the daughter of Ceylon's Home Minister, who presented a bouquet to Mrs. Diefenbaker; and Anura the Ceylon Premier's son, who garlanded Mr. Diefenbaker

The Canadian Premier then answered questions put to him by the Pressmen.

Q. During your visit have you been able to study conditions in Ceylon in comparison with those of Canada, from the point of view of foreign investment?

A. As I said a few moments ago, this country reminds me of Shakespeare's lines, "this demi-paradise". I have never seen a country so beautiful in appearance, so magnificent in landscape and



with so many varied agricultural resources. By agricultural resources I refer to food and products like tea, rubber, etc. I must say that it lives up to all I have heard about Ceylon. Now I understand why, at international conferences, they say "Let us go to Colombo".

Canadian Aid

Q. Are you satisfied that Canadian Aid is being well used in Ceylon?

A. From what has been seen so far, Yes. I have seen the University. This afternoon I will see the Technical School and the other developments that have taken place. I certainly have not had any indication to the contrary. 250 million dollars have been expended in the last few years, and in the next few years we will increase assistance by 15 million a year to 50 million dollars a year or 150 million dollars in three years. In view of the fact that we have, within our own country, a surplus of wheat, we will naturally be hoping—if not expecting—that the countries, in the next couple of years, will take a larger share of our wheat turned into flour, which we have available in surplus. We feel that out of any increase that is being made, a substantial portion should go to the distribution of food.

Q. Would you care to comment on your conversations with the Ceylon Prime Minister and other Government leaders?

A. In every case, we have had the fullest discussion. This morning and when I first arrived I discussed those matters which are of international or of Commonwealth interest, and exchanged ideas. Each secured the opinion of the other. If you ask me what the field of discussion was, that is not for me to say. The discussions were most fruitful, helpful and beneficial.

Q. There was a story in the paper yesterday that 22 million rupees' additional

Canadian aid is going to be given. Is that correct?

A. More than that. It is three times 15 millions or 45 millions. That is the complete amount. Ceylon, of course, will receive in proportion.

Q. It was said on your arrival here you would be discussing the entry of People's China to U. N. O. Have you had any discussion? If so, what was the result of that discussion?

A. As far as People's China is concerned our attitude has been made very clear on many occasions. The Canadian Delegation have been against discussion of the matter because it was the opinion of Canada that it would be impolitic to discuss this matter as a result of the military action taking place in the Taiwan Straits. We do not believe that any nation should expect to gain entrance into the United Nations by force. Serious consideration should be given by all concerned to the friction in the Far East.

Ghana and Guinea

Q. Would you like to make any comments on the merger of Ghana and Guinea?

A. As far as the proposal announced by Prime Minister Nkrumah, is concerned, no study has been given by the Canadian Government to the question as yet. All that we know was that before the announcement was made, the Prime Minister certainly communicated with Canada and the other countries of the Commonwealth, but other than the announcement in that phraseology, I have no information and would, naturally, not want to make any observations until the fullest consideration has been given to the proposal.

Q. What is the progress Canada is making in her trade with Communist countries?



A Trade Agreement was signed on November 11, 1958, between Ceylon and Austria by Mr. R. G. Senanayake, Minister of Commerce and Trade, and Dr. Arno Halusa, the Austrian Minister in Ceylon

A. We have no limitations on our trade whatsoever, excepting in so far as strategic materials are concerned. Those things cannot be exported from our country. Beyond that, nothing has been done to discourage trade; on the other hand, there has been an encouragement of trade.

Q. Is there a likelihood of the quota of immigrants from the Commonwealth countries being increased in Canada?

A. As far as Ceylon is concerned, the Agreement was signed in 1951, and a quota was established by agreement. This quota has been filled each year since 1955. No increase in the numbers will, naturally, be made without negotiation between the governments. As a matter of fact, those who have come to our country have been very successful. I realize that there is always a

small percentage, no matter from where they come, who say that things are not just right. The overwhelming large majority have made good and are very pleased.

Q. Do you think private capital could be invested in Ceylon?

A. We are always looking for investment. Most of our investments came from the U. K. But during the Second World War, Great Britain used up her investments in order to assure victory, and more and more there have been U. S. investments in our country. We have investments running to over 10 billion dollars from the U. S. seventeen million people do not have the capacity to set aside any savings for the needs of development in a country such as Canada. While we have Canadian investments abroad, Canadian institutions are always ready to invest,



Three project agreements were signed on November 14, 1958, between the Government of Ceylon and the Government of the United States under which U. S. will provide further economic and technical Aid to Ceylon in the fields of Agriculture, Water Resources and Irrigation and Land Development. (left to right) Mr. John L. Roach, Director, U. S. O. M., Mr. Rufus Burr Smith, U. S. Charge d' Affaires, Mr. Stanley de Zoysa, Minister of Finance, and Mr. H. E. Peries, Deputy Secretary to the Treasury



The Hon. D. P. R. Gunawardena, M.P., Minister of Agriculture and Food, with some of the Ceylon students in Japan whom he entertained during his stay in Japan

Mr. Diefenbaker then thanked the Pressmen for the opportunity given to him of meeting them, and also for the splendid coverage given to him and his wife.

Mr. Diefenbaker and party left Ceylon by special plane on the morning of November 27.

Visit of the Deputy Prime Minister of West Germany

DR. LUDWIG ERHARD, Deputy Prime Minister and Minister of Economics of the Federal Republic of Germany, who arrived in Ceylon on November 1 on a four-day visit,



Remembrance Day was observed in Ceylon on November 9th. Here the Governor-General, Sir Oliver Goonetilleke, is placing a wreath at the War Memorial in Colombo



▲ The German Deputy Prime Minister, accompanied by the Minister of Nationalised Services and Road Transport, Mr. Sarath Wijesinghe, going round the Central Workshop of the Ceylon Transport Board at Werahera, for which staff and equipment will be provided shortly by the Federal Republic of Germany

► The Governments of Ceylon and Canada signed an agreement in Ottawa on November 5, 1958, in which Canada agreed to give a loan of 2 million dollars to Ceylon for the purchase of 25,000 tons of Canadian wheat flour. The agreement was signed by the Hon. J. M. Macdonnell, Acting Finance Minister, Canada, and Sir Velupillai Coomaraswamy, High Commissioner for Ceylon in Canada



told a press conference that from a purely economic point of view there was every reason for Ceylon to be hopeful, since this island had been blessed with a high potential of resources. He added that the basic economic and social conditions here were good, because of the country's natural wealth,

and its comparatively high level of civilisation, education, health and other factors.

He said that during his brief stay in this country, he had observed the widest differences of opinion as to which way Ceylon should develop in the future. It was for



Dr. Erhard, Deputy Prime Minister of Germany, having talks with the Ceylon Premier in Colombo

Ceylon herself to decide which way she should go, he added.

Speaking further he said: "If Ceylon tries to reach her economic and social goals under her own steam, depending solely on her own strength, it will mean national isolation, which would throw back her development by several decades. The alternative facing any country in this position is to lean on the support of foreign capital. The question of raising sufficient capital for development purposes cannot be evaded".

Asked whether he would advise that there should be investment of German capital in Ceylon, Dr. Erhard said that under certain

circumstances private German capital would be encouraged to come out here and, in association with local capital, build up some sort of partnership. He envisaged small and medium sized businesses over the whole field of economic activity.

Visit to Kandy

THE West German Deputy Premier and his party of 30, among whom were members of the West German Parliament were the guests of H. E. the Governor-General at King's Pavilion in Kandy. They visited the Temple of the Tooth at Kandy and the



The Minister of Transport and Works, the Hon. Maitripala Senanayake, naming Air Ceylon's new Super G. Constellation at a ceremony at the Ratmalana Airport on November 17th

University of Ceylon and the Royal Botanic Gardens at Peradeniya.

During his stay Dr. Erhard met the Ministers of Finance, Commerce and Trade, Nationalised Services and Road Transport, Agriculture and Food, and Industries and Fisheries. He also met the members of the National Planning Council.

He also visited the central workshop of the Ceylon Transport Board at Werahera, for which staff and equipment will be provided by the Federal Republic of Germany shortly. He next visited the Ceylon-German Institute at Alexandra Road, Colombo, where he held a press conference.



▲ The Deputy Prime Minister and Minister of Economics of the Federal Republic of Germany, Dr. Ludwig Erhard, at the Royal Botanic Gardens at Peradeniya. Dr. Erhard spent four days in Ceylon in November

▼ The German Deputy Prime Minister at the Temple of the Tooth, Kandy



Visit of Finance Minister

THE Canadian Minister of Finance Mr. Donald Fleming, accompanied by Mrs. Fleming, visited Ceylon from October 24-27. (Pictures in Ceylon Today of November, 1958). During their stay they visited Kandy, the Institute of Technology at Katubedde and the Zoological Gardens at Dehiwala.

Speaking at a Press Conference Mr. Fleming said that he was so pleased with the progress made by the Canadian aerial survey project that he was prepared to recommend to his Government that further Colombo Plan funds be made available to continue the aerial survey. That would mean, he said, an allocation of 600,000 dollars in the present fiscal year ending March 31st next year and also a further allocation of 600,000 dollars in the fiscal year commencing on April 1st next year.

He said that Canada had always directed an overwhelming proportion of her Colombo Plan contribution to the Commonwealth countries of South-East Asia, viz. Ceylon, India, Pakistan and latterly Malaya. The Canadian Government intended to follow that pattern.

He said that the total assistance to all Colombo Plan countries until the end of this fiscal year was 225 million dollars while other forms of aid to Ceylon, India and Pakistan amounted to 60 million dollars.

Aid Given to Ceylon

HE said that the attitude of his Government towards the C-Plan was best evidenced by the support given to it by Canada since its inception. In the case of Ceylon, a total contribution of 20 million dollars had been made until the end of this fiscal year. Of this amount the Colombo Plan allocation was 15 million dollars while approximately 5 million

dollars were spent on special assistance including three million dollars worth of flood relief.

He said that at the recent Commonwealth Trade and Economic Conference at Montreal, various plans for assisting under-developed countries were submitted. He as Finance Minister of Canada was glad to announce that it was proposed to increase Canada's contribution to the Colombo Plan to 150 million dollars commencing with the next fiscal year and continuing for a three-year period. That represented an increase of 50 per cent over the rate of contribution during the previous years.

Mr. Fleming said that he would carry away a vivid impression of the projects which Canada was assisting—viz. the Mutwal Fisheries Project, the Aerial Survey Scheme and the Institute of Technology at Katubedde.

He added that the last named project, which is still under construction, would be declared open by the Canadian Prime Minister, Mr. John Diefenbaker, during his visit to this country towards the end of November.

New Project Agreements

THE Ceylon-American Economic and Technical Co-operation Programme took another step on November 14 with the signing of three new project agreements at the Ministry of Finance. The three project agreements commit the United States to about Rs. 3,500,000 of additional aid to Ceylon, bringing the total granted since the start of the programme in 1956 to Rs. 145 million.

Present at the signings were the Hon. Stanley de Zoysa, Minister of Finance; Mr. Rufus Burr Smith, United States Charge

d' Affaires ; Mr. Herman Peries, Deputy Secretary to the Treasury ; Mr. John L. Roach, Director and Mr. Carl R. Fritz, Programme Officer of the United States Operations Mission of Ceylon, and other Treasury officials.

The aid provided by the United States under the three project agreements is in the form of continuing technical assistance to the Government of Ceylon's development programmes in three important fields : (1) Agricultural Extension, Research and Education, (2) Water Resources Planning, and (3) Irrigation and Land Development. In each case, the additional funds will assist the Government in the expansion of established projects designed to mobilize the nation's basic resources. These funds do not cover the total costs of the projects, since the Government of Ceylon itself finances a larger proportion of the total costs of the co-operative programme out of its own resources.

(1) Agricultural Extension, Research and Education \$ 265,000 (Rs. 1,260,000).

To assist the Ministry of Agriculture and Food to carry on its programme of increasing agricultural production and raising the standard of living of Ceylon's rural population, the United States will furnish additional equipment and supplies amounting to Rs. 285,000 to provide additional training and study facilities abroad for eighteen technical specialists of the Ministry and continue to provide advisory services in such selected fields as food crop and animal research, rubber breeding, weed control and improvement of farm tools and implements.

(2) Water Resources Planning \$170,000 (Rs. 809,000).—

The Ministry of Lands and Land Development has initiated a comprehensive programme of river basin planning. The Ministry has selected Ceylon's largest river basin, the Mahaweli Ganga, as a pilot project

for which it is developing all feasible water and power development schemes, for integration into an overall multi-purpose engineering plan. The pilot project will develop trained staff and will serve as a specific model and demonstration for future work of a similar nature.

Pursuant to a project agreement signed last February, the U.S. has furnished equipment and the services of a short-term consultant and three members of a Water Resources Planning Team to assist the Ministry in its programme. Under the recent agreement the United States will furnish additional equipment and augment the number of American specialists to eight.

(3) Irrigation and Land Development \$300,000 (Rs. 1,428,000).—

To assist the Ministry of Lands and Land Development in its programme of opening up new land for irrigation and the restoration and modernization of existing irrigation works, the U.S. will provide additional equipment, training and study facilities abroad for four technical specialists of the Ministry and the funds required for continuing the services of a ten-man U.S. experts team supplied by the Vinnell Corporation of Alhambra, California. The ten-man team has already served the Department of Irrigation for a 16 month period under a previous two year contract. In making its request to the U.S. for an extension of the contract with the Vinnell Corporation, the GOC has stated that the services of the team have been of immense value through technical assistance in modern methods and procedures, analysis of obstacles to increased production, the demonstration of modern methods of overhauling equipment and through the introduction of training courses in engine repair, welding, the operation of cranes and excavators, shop management and cost accounting.

Ceylon's Ambassador in Czechoslovakia

THE Government of Ceylon has, with the concurrence of the Government of the Czechoslovak Republic, decided to appoint His Excellency Dr. G. P. Malalasekera, Ambassador Extraordinary and Plenipotentiary for Ceylon in the U. S. S. R., concurrently as Ceylon's first Ambassador Extraordinary and Plenipotentiary in Czechoslovakia, with residence in Moscow.

Ceylon Establishes Diplomatic Relations with Afghanistan

THE Government of Ceylon and the Royal Afghan Government have agreed to establish diplomatic relations between Ceylon and Afghanistan and to exchange representatives at Ministerial level. The Government of Ceylon has appointed His Excellency Mr. M. M. Maharoof, Ceylon High Commissioner in Karachi, concurrently as Minister to Kabul

while the Royal Afghan Government has appointed His Excellency Dr. Zahir, Afghan Ambassador in Karachchi, concurrently as Minister to Colombo. They will both have their residence in Karachchi.

Austrian and Yugoslav Envoys Present Credentials

THEIR Excellencies Dr. Arno Halusa, Austrian Minister-designate to Ceylon, and Mr. Dusan Kveder, Yugoslav Minister-designate to Ceylon, presented credentials to His Excellency the Governor-General at a brief ceremony at Queen's House recently.

Dr. Arno Halusa, who is the representative of Austria in India, is concurrently accredited to Ceylon. Mr. Dusan Kveder, who is the representative of Yugoslavia in India, is also concurrently accredited to Ceylon.

The Pleistocene of Ceylon

THE latest addition to the Natural History series of books published by the Colombo Museum is a volume entitled the *Pleistocene of Ceylon* by P. Deraniyagala, consisting of 164 pages, 58 plates and 40 figures, dedicated to the memory of Sir Clive Foster Cooper, F.R.S., price Rs. 8.50, postage extra. Some of the great variety of subjects it embraces are : the history of vertebrate palaeontology in Ceylon, the Pleistocene epoch, Ceylon's general geology, epigenetic movements, fluctuations of sea levels, rivers and river terraces, two stone-age human species and various extinct large mammals such as the lion, rhinoceros, hippopotamus, gaur, and three kinds of elephants ; fluctuations in climate which caused the former existence of many large natural lakes and rivers that were fed by the heavy rainfall of those days which produced tropical forests and savannah or grasslands, followed by a period of aridity where many of the lakes and swamps dried up, and secondary minerals such as copper chlorate or "atacamite" were produced ; the modern type of climate appeared last of all and produced the wet and the dry zones.

The extinct "Ratnapura fauna" of Ceylon, which is an offshoot of the extinct Shivalik fauna of India, is described in detail and the stratigraphy and chronology of Ceylon's fossil horizons are compared with those of the neighbouring countries, while the botanical fossils also receive some attention. Other

matters of interest are the invasion of Ceylon by the different continental species and the evolution of endemic forms in Ceylon as a result of isolation. Five pages are devoted to references to literature, and include 71 papers published by the author himself on his new discoveries from Ceylon and elsewhere which have a direct bearing upon the Pleistocene. Illustrations range from photographs of deposits of sea shells occurring several miles inland, sections of the coral quarry at Kankesanturai cement factory, fossilised crabs from Kutchavalli, pebbles dug up with gem sand at various places in Sabaragamuva Province, aerial photographs of the fossiliferous areas, flashlight photographs taken inside caves, stone-age human skeletons in situ, and photographs of fossil remains of the various large animals mentioned earlier that have been discovered in the gem sand of Sabaragamuva Province.

It is the first occasion that a work of this nature has been attempted for Ceylon, and, as the author states, "the various problems presented await the full-time attention of many workers. To these, the present volume can only give the initial impetus". The book opens up a hitherto practically unexplored field of study of the greatest importance to those interested in the advent of man and beast into Ceylon, and the Island's changing land surfaces, climates, vegetation, and the progress of evolution of its flora, fauna, and humans.

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