

CEYLON *Today*

**Twenty-five Years of
Service**

**Rice Cultivation in
Ceylon**

Dr. M. F. CHANDRARATNA

Wilpattu National Park

ESME RANKINE

**The Walawe Ganga
Scheme**

D. W. R. KAHAWITA

**Vocational Training in
Ceylon**

**Developing Ceylon's
Fisheries**

Foreign Affairs

Books about Ceylon

LYN de FONSEKA

Off to the Paddy Field



MARCH, 1956

Our Contributors

Dr. M. F. Chandraratna, is Deputy Director of Agriculture, Government of Ceylon.

D. W. R. Kahawita, B.A. (Cantab.) is Designs Engineer in the Irrigation Department, Government of Ceylon.

Lyn de Fonseka is Assistant Librarian, Colombo Museum.

CEYLON TODAY

		<i>Local</i>		<i>Foreign</i>
		<i>Rs. c.</i>		
Annual Subscription inclusive of Postage	..	7 50	..	15s.
Price per copy	.. ..	0 50	..	—
Postage	.. ..	0 10	..	—

Apply to—

**The Superintendent, Government Publications Bureau,
Information Department, Secretariat, Colombo.**

CEYLON

Today

PUBLISHED BY THE CEYLON GOVERNMENT INFORMATION DEPARTMENT

March, 1956

Vol. V No. 3

All Editorial correspondence should be addressed to the Assistant Information Officer, Information Department, Senate Building, Colombo 1

Twenty-five Years of Service

THE Prime Minister, the Rt. Hon. Sir John Kotelawala, recently completed 25 years of distinguished and devoted service to Ceylon. The event was celebrated in a fitting manner, first by the unveiling of a portrait of the Premier done by David Paynter, the well known Ceylonese artist; and later by a public banquet attended by over 500 people.

On this latter occasion, Sir John was also presented with a book entitled "This Man Kotelawala", in which several men and women, living in this country or overseas, have dwelt on the notable aspects of Sir John's life and character.

At the unveiling ceremony, Sir Arunachalam Mahadeva described Sir John as the man most fitted to guide the destinies of Ceylon. He said :

"We are in a new era of progress. The country is throbbing with a new life. And under his wise guidance there is fruitful activity in every field of life, of social endeavour and cultural development. And in these days when internal disorder and civil strife are preventing ordered progress in other countries and making life in those countries intolerable, Sir John has seen to it that our citizens can go about their vocations undisturbed by disorder, strikes and civil commotion. It is his strong personality and the conviction that

he will react vigorously for the maintenance of law and order that has ensured the peaceful tenor of our existence during these 2½ years. Ceylon has a great reputation abroad as a country where law and order is respected and peaceful conditions prevail. No subversive elements will dare, while Sir John is Prime Minister, to attempt to create trouble and chaos.

Memorable part

"And in the field of international relations; Sir John has played a memorable part and has made Ceylon respected in the councils of the nations. As the sponsor of the Colombo Powers' Conference and of the Afro-Asia Conference at Bandung Sir John has become a world figure. He has displayed great qualities of statesmanship at these conferences in composing differences, and his presence at these conferences has been responsible in a large measure for their success. Sir John deserves well of us. He has served Ceylon loyally and well. The peace and prosperity which we enjoy are largely of his making and we are deeply grateful to him for it. May Sir John long be spared to serve our motherland with the same zeal and devotion as in



The Governor-General proposing the toast of the Prime Minister at the public banquet which was held at the Galle Face Hotel to mark the completion by Sir John of 25 years in active politics.

the past, making the welfare of the wage-worker and the welfare of the tiller of the soil the cornerstone of his policy."

At the public banquet accorded to Sir John Kotelawala, the Governor-General, Sir Oliver Goonetilleke, ranked the Ceylon Premier among the first ten of the world's great leaders, and hailed him as the "chief architect of resurgent Sri Lanka". In the long history of this land, no son of Sri Lanka had secured greater recognition abroad for our country than Sir John. After eight years of independence, he could re-state his oft-repeated submission that Ceylon was the best achievement ever of the United Kingdom, nay of any world power, in colonial trusteeship.

Tributes were also paid by Sir Arunachalam Mahadeva; Mr. N. E. Weerasooriya, Q.C.;

Mr. J. R. Murray; Sir Razik Fareed; and Dr. R. L. Spittel.

The Prime Minister, in his reply, said:

"Everywhere I look this evening I see countless happy faces of people I have met and known for years, who, by their presence here tonight, have more or less given assent to those wonderful tributes that have been paid to me by six of my oldest friends. I want you to believe me when I say that this is the greatest day of my life.

"There have been great days before, but in the fullness of time I wonder whether I shall have occasion to think of a greater day than this when this vast lawn has been filled to overflowing by people who desire to honour me on my attaining the twenty-fifth year of my political life. You represent all

communities, all creeds, and all classes in this Island of ours; so that when I contemplate this vast sea of heads around me, I cannot help feeling that the whole of Ceylon, and not just one prescribed portion of it, is my constituency. That is a glorious feeling for any Prime Minister to experience, and the pride you have given me tonight is something which I cannot adequately express, because your demonstration of goodwill signifies your confidence in me, and no public figure can expect a greater tribute on the attainment of the silver jubilee of his political life".

Co-operation—Key to his Success Story

ADDRESSING His Excellency, Sir John said: "Your reference to my achievements makes me look back upon the years. I cannot now quite remember what made me take to politics. But

whatever the cause was, I derived as much exhilaration from it as from the game of polo and other ball games for which apparently I was growing too old at the time, and in the process I have discovered other lessons and other virtues in this never-a-dull-moment game of politics, which has provided me with an opportunity for service to my people and my country. You, in your goodness, have made much of what I have been able to do. You have made me the hero of a success story, but one cannot succeed by oneself, and one of the earliest lessons I learned, both in my personal and my political life, was the necessity of co-operation. If I have been a success as Minister of Transport and Works, it was through co-operation with people, and my success was as much theirs as mine. If, likewise, I have been a success in my larger sphere of activities as Prime Minister, it has been rendered possible through

The Governor-General, Sir Oliver Goonetilleke, looks on, while the Prime Minister receives from Mr. P. Nadesan a commemorative volume entitled "This Man Kotelawala".





The Prime Minister, the Rt. Hon. Sir John Kotelawala, with the Silver Casket that was presented to him at a public banquet that was held in Colombo in February to mark his Silver Jubilee as a Parliamentarian.

co-operation from my colleagues, my fellow-workers and from my fellow-countrymen. All honour to them, for theirs has been the toil, while mine, perhaps, has been the glory.

“I have practised co-operation both at home and abroad—especially after I became Prime Minister and assumed responsibility for external affairs. I believe in one nation for Ceylon and one world for the nations, if ever that is possible. It is my firm conviction that if the nations of the world come to know one another better, they will learn to co-operate with one another better—even despite different ideologies—and that there will be better prospects of peace for humanity”.

Recent Achievements

SPEAKING further the Prime Minister said : “It was just the other day that we were admitted to the United Nations. That was good news, indeed, but we have had more good news during the past few days. Firstly, there was the very welcome news of the visit of the Queen Mother to Ceylon to spend three whole weeks with us next year. The previous day’s papers announced that the American Government has decided to give

Ceylon a sum of twenty-five million rupees for economic development. This morning’s papers announced details of the aid which the American people are extending to us. We have been promised enough milk food every year, for the next three years, to give a glass of milk every school-day of the year to every child. The total value of the aid is around sixty million rupees and I am happy to say that this is aid without strings, in keeping with the doctrine I have enunciated in the past that we will accept aid only if both the giver and the receiver expect nothing but goodwill from each other. This is the result of co-operation between countries. We have already had co-operation on these lines under the Colombo Plan from our Commonwealth colleagues.

“I have already said that I believe in one nation for Ceylon. That is the rest of my political testament. D. S. Senanayake gave us independence and opportunity as a nation. It is left to us to build up a nation, but we cannot do so if we think of ourselves as members of different groups or communities.

“It is these different groups and communities that are the components of one Ceylonese nation. We must be Ceylonese first and anything else afterwards”.

Rice Cultivation in Ceylon

Dr. M. F. CHANDRARATNE

IN 1954, Ceylon imported 480,000 long tons at a cost of 340 million rupees. At an extraction rate of 68 per cent this quantity corresponds to 34.35 million bushels of paddy. The 1946 Census reveals the existence in Ceylon of a physical extent of 900,000 acres of aswed-dumized paddy land; of this extent, annually nearly 620,000 acres are cropped in the *maha* season, and about 310,000 acres in *yala*, aggregating an annual sown acreage of 930,000 acres. With the existing acreage, to secure self-sufficiency a yield of nearly 67 bushels per acre becomes necessary.

Twenty-six per cent of farming families own no land. Tenant cultivators operate under a system which entitles the landlord to a share—usually half—of the harvest. The share cropper may incur the total cost of an improved practice, and derive only a fraction of the profit. Moreover, insecurity of tenure discourages the permanent improvement of holdings, the use of fertilizers that leave residual benefits and the ownership of any but the most inexpensive of implements. The average size of a holding in Ceylon is 0.8 acre. Less than 4 per cent of the holdings exceed five acres, and over 65 per cent are under an acre. When the fragmentation of a holding reaches its physical limit, a system that involves a rotation of ownership, and often of tenancy, becomes operative. Government has been acutely conscious of the need for improving the peasant's position, and passed in 1953, the Paddy Lands Act, No. 1, which was designed to minimize the evils of share cropping and uncertain tenancy. Moreover, rural indebtedness has been combated by the establishment of a network of Co-operative Agricultural Produce and Sales Societies which provide loans to farmers, supply

subsidized fertilizers, seeds and implements, and purchase farmers' produce at guaranteed prices.

Climate

RICE is grown extensively from sea level to about 3,000 ft.; the mean annual temperature in this area varies from 82°F. to 70°F. Cultivation at higher elevation is relatively unimportant.

Annual rainfall ranges from 40 in. to over 200 in. Three-fourths of the Island with an annual rainfall not exceeding 75 in., constitute what is inappropriately termed the "dry" zone. The dry zone receives the bulk of its rain in the north-east monsoon (October-December). Precipitation in the wet zone, which occupies the south-west corner of the Island, is more uniformly distributed. Approximately half the country's rice acreage is accommodated in each zone.

Rice in the dry zone is irrigated from a multiplicity of reservoirs or "tanks" in which water accumulated by surface catchment is stored. These tanks, over 10,000 of which dot the dry zone, are of great antiquity; some of them date to the fourth century B.C. In the north-east monsoon, it is possible to mature a rice crop with 3-acre feet of irrigation water. In the south-west monsoon, which is drier, 5-acre feet become necessary.

The wet zone, in which a large part of the rice acreage is almost completely rainfed, is Ceylon's problem area. Lack of control over the water supply in this region (a) makes the rice crop

precarious, (b) prevents efficient weed control, and (c) creates drainage difficulties.

Cultivation

THE Ceylon peasant often uses methods traditional to South-East Asia. Tillage may be done with a hand hoe or with a wooden "plough" which possesses no mould-board and performs no soil inversion. In rare instances, the wet soil may be puddled by churning under the feet of buffaloes. These primitive practices are being rapidly replaced by modern methods. About three thousand iron mould-board ploughs have been issued to farmers by Government annually in recent years. In areas where the topography permits, the bullock is giving way to the tractor. The use of the tractor is, however, confined to preparatory tillage and seeding. Harvesting machinery suitable for Ceylon conditions does not appear to be available. The breeding of non-lodging strains and the achievement of satisfactory field drainage must precede the successful use of combines.

By far the larger part of Ceylon's rice acreage is direct sown with sprouted seed, but an expanding fraction is being transplanted. Yield benefits of 40-120 per cent are claimed for the practice of transplanting, and in the last year, an increase of 45,000 in the transplanted acreage was recorded.

Fertiliser use

CEYLON rice soils are mostly alluvial, and vary from light sands deficient in organic matter to heavy clays. These soils have not yet been completely mapped for fertilizer response but broad recommendations are possible. The response to the nitrogen is general, and when the supply of phosphate is adequate, the curve of response continuous to rise up to a maximum at about 60 lb. nitrogen per acre. Deep placement of ammonium sulphate in the reduction layer of the soil is more profitable than surface application. Ceylon varieties appear to prefer late

applications of nitrogen, and the most marked responses have been obtained with dressings in the tillering phase, and just previous to inflorescence initiation.

In Ceylon, increases of 40 per cent in the yield of rough rice from applications of 40 lb. phosphoric acid per acre are common. In isolated areas, however, this fertiliser makes little impression on yield.

Recorded responses to potash are rare in Ceylon, although deficiency symptoms have been noted in the wet zone of the Island. In the light, sandy soils of the Eastern Province, however, applications of 30 lb. potash per acre have provided yield increases of 20-43 per cent.

The provision of a Government subsidy of 33½ per cent on rice fertilizers has promoted the extension of the practice of manuring. In the year 1953-54, an increase of 96,400 in the acreage fertilized has been recorded.

Tests of introduced Varieties

THE reservoir of genes in Ceylon rices is depressingly small, and early attempts at straight selection had been relatively unfruitful. Within the last five years, several hundred introductions have been tested on a scale not previously attempted in this country. The extensive testing of introductions aimed primarily at exploring their use in hybridization programs. A small fraction of these introductions, however, showed unsuspected promise, and during the period 1951-52, the issue to growers of seven introduced purelines was announced: *Ptb16* from India, *Mas* and *Bengawan* from Indonesia, *MYAC104*, *HMC12* and *HMC20* from Burma, and *Siam 29* from Malaya. Of these, *Ptb16* and *Mas* warrant particular mention. The spread of *Ptb16*, a fine-grained, vigorously tillering rice, equally suited to well-drained, dry-zone soils and to wet-zone swamps, has been phenomenal. Within three years of its issue, it has covered several thousand acres.

Mas is probably the most outstanding paddy that Ceylon has yet seen. It possesses wide adaptability and produces a profusion of first-order tillers which ripen simultaneously. It, however, stores badly.

Ceylon Program of Rice Hybridization

HYBRIDIZATION did not form an integral part of this country's rice improvement program until 1949. Apart from the general purpose of increasing variability, three objectives dominated Ceylon's hybridization projects, viz.—

- (a) the genetic control maturity, particularly in relation to photoperiod sensitivity ;
- (b) the isolation of strains suited to the rapidly rising standards of cultivation ; and
- (c) the elimination of conspicuous defects in purelines already under issue.

In a country like Ceylon, where cultural levels have been traditionally low, the evolution of strains suited to those levels would have been the consequence of continued conscious or natural selection. The long cultivation of unmanured crops in a tract, for instance, would result in the isolation of strains that are in equilibrium with the soils of that tract : only as much nutrients are removed as are replenished by natural processes. With the recent rise in cultivation standards, the need for varieties with higher fertilizer response has arisen.

Breeding for fertilizer response in Ceylon initially took the form of a *japonica-indica* hybridization project, parallel with the one sponsored by the International Rice Commission.

The *japonica-indica* crosses made at Peradeniya, exhibited varying degrees of sterility. These sterility barriers were partially surmounted by backcrosses to the *indica* parent, but the elimination of sterility was accompanied by the disappearance of *japonica* characters. As far as Ceylon's limited experience goes, the *japonica*

indica hybridization project has been relatively unpromising. A more profitable approach appears to be the search within the *indica* group for fertilizer-response genes that have survived selection. Conspicuous advances have already been made in this direction in Ceylon. Marked fertilizer-variety interactions have been noted in tests of Ceylon material, and at least one variety, viz., *Murungakayan*, has exhibited striking response. Four selections made within this variety, 3,302, 303 and 304, are already widely distributed.

As may be expected from the poor quality of indigenous material from which they have been derived, the defects in local purelines are many and marked. Poor milling and susceptibility to grain-shedding, lodging, blast, floods, and salinity, are some of the conspicuous defects. All local lines lodge badly, and the per cent breakage when milled raw is often high. The breakage figures for some of the indigenous rices are given below :

Names of Varieties	Per cent Breakage
Vellai Ilankalayan ..	.. 43.0
Kurulutuduwi ..	.. 35.4
Perillanel ..	.. 32.5
Pachchaiperumal ..	.. 24.8
Heenati ..	.. 17.1
Mawi ..	.. 16.9
Kaluheenati ..	.. 16.4

Lodging and milling defects are being remedied by crosses with Burmese varieties. *HMC12*, one of the Burmese parents, has a per cent breakage of only 1.8.

Grain shedding before harvest contributes to low yields. Two notoriously bad shedders, *Panduruwi* and *Pachchaiperumal*, have received particular attention. The percentage shedding in these two lines range from 9 to 13. *Vellai*

Ilankalayan, which has a percentage shedding of under 4, has been successfully used in breeding for shedding resistance in spite of the apparent association of age with the non-shedding character. The hybrid H. 2 retains most of the virtue of *Pachchai-perumal*, and has a shedding percentage approximating *Vellai Ilankalayan*. A series of non-shedding lines ranging in age from 5 to 6 months have been isolated from the *Panduruwi* × *Vellai Ilankalayan* crosses.

Ear length, through its effect on grain yield per tiler, exercises a profound influence on yield. None of the local purelines have an earhead exceeding 23 cm. Some of the Indonesian parents used in hybridization have ears over 30 cm. long. These Indonesian varieties are, moreover, strong-strawed and shedding resistant.

Diseases of paddy are rarely troublesome in Ceylon, but blast is a serious hazard. Crosses with Indian strains, particularly Co-4, aim at the transfer of blast resistance to local lines.

Individual rice tracts have their special problems. Floods, when the rains are heavy, and salinity in dry weather afflict the coastal belt. Two purelines are on issue in this area: *Devaredderi* 26081 which resists floods but is damaged by salt, and *Pokkali* which succumbs to floods but is salt-resistant. Crosses between these two lines aim at the synthesis of a form that tolerates both floods and salinity.

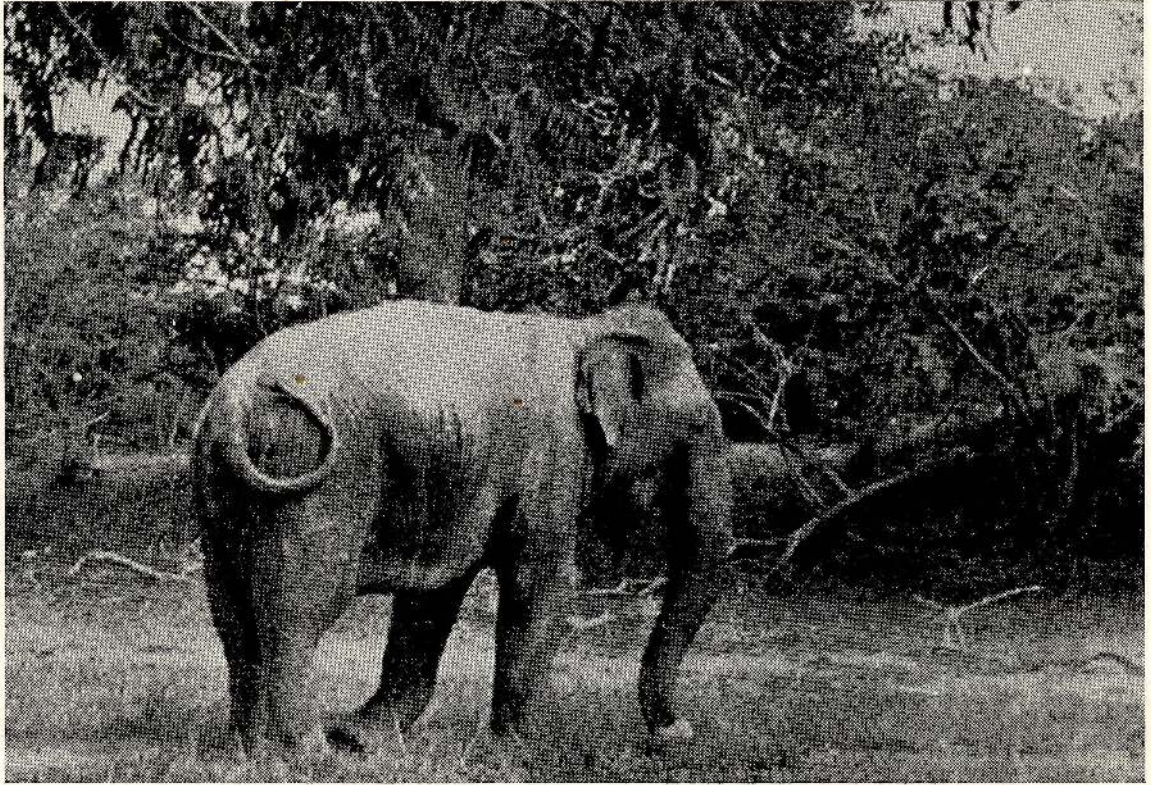
Japanese Rice Techniques

THERE has been, in recent years, a growing interest in the methods that permit the Japanese farmer to secure rice yields more than double the average for any Asian country. In 1953, the Minister of Agriculture and Food issued instructions that Japanese techniques be

intensively investigated and their local applicability determined. These methods, the essentials of which include perfect weed control and heavy manuring, have been extensively tested by the Department of Agriculture. Some of the yields obtained on Government Farms are reproduced below :

Province	Centre	Pureline	Age in months (Sowing harvesting)	Yield (bushels/acre)
Central	.. Nalanda	.. Mas—M24	4½ ..	80
	Kundasale	.. do.	4½ ..	113
North-Western	.. Maha-Iluppalam	Vellai Ilankalayan—28061	4 ..	63
	do.	.. Murungakayan—303	4 ..	74
	do.	.. Sulai—301	3½ ..	54
	do.	.. C—12	4½ ..	82
Sabaragamuwa	.. Wagolla	.. Ptb. 16	6 ..	66
	Karapincha	.. do.	6 ..	52
Eastern	.. Karadian-aruru	Vellai Ilankalayan—28061	4 ..	76
	Vakaneri	.. do.	4 ..	59
Southern	.. Ambalantota	.. Sinnanayan 398	3½ ..	64
	Tissa	.. do.	3½ ..	82
Uva	.. Bathmedilla	Vellai Ilankalayan—28061	4 ..	53
	Okkampitiya	.. do.	4 ..	62

The poor performance in some of the early trials was due to the low response of most indigenous rices to fertilizers. The Department's plant breeders have selected a range of high-response pure lines suitable for use with Japanese methods, and have made the spectacular spread of these techniques possible. Raised nurseries, row planting rotary weeders, and top-dressing with ammonium sulphate are rapidly replacing traditional peasant practices.



A wild elephant standing in the shade of a forest tree

Wilpattu National Park

ESME RANKINE

WILPATTU means "the land of the *villus*", deriving its name from the natural lakes (Sinhalese, *Vila*; Tamil, *Villu*) abundant in its area. It lies in the country along the north-western coast of the Island, in an uneven rectangle between two rivers. The approach to it is from the 27½ mile-post along the Puttalam-Anuradhapura road, first along 5 miles of minor road and then along a further 8 miles to the Maradan-maduwa Bungalow, the bigger and better known of the two bungalows in the park. The other, the Kali Villu Bungalow, can still be reached only by jeep. In extent the National Park is 252 square miles.

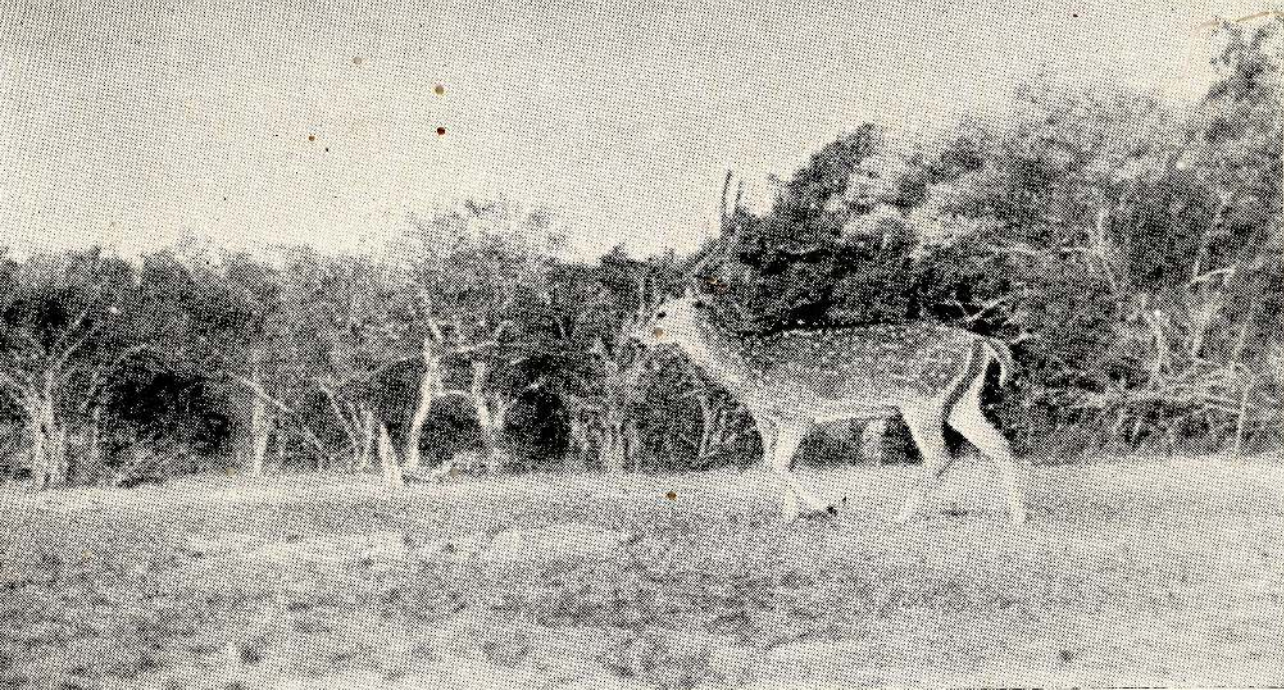
The Administration Report of the Wild Life Department gives with exactitude its topography: "Wilpattu possesses features both unusual and interesting. The coast-line on the west, fronting Portugal Bay, presents an appearance which is not seen elsewhere in Ceylon. Here are bare reddish cliffs, vertical or stepped, 20 to 50 feet high, rising abruptly from narrow beaches. Parallel to and very close to the coast and backing the cliffs runs a continuous range of hills, 50 to 225 feet high, between the mouths of the two rivers Moderagam Aru and Kala Oya. The highest hill in this range is Kudiramalai. Through gaps, about 18 miles apart, in this natural hill

barrier these two rivers have found their way to the sea: in between no inland water can reach the sea and, therefore, no rivers or streams exist. To east (inland) of this coastal barrier of high ground the land falls away to low elevation of 10 to 40 feet, and then, at distances of 3 to 8 miles from the sea, gradually rises again to the 100-foot contour. In this broad pan, averaging 12 miles long and 6 miles wide, lies the western group of 31 *villus*. All but two of them contain fresh water: many are very shallow. The rise in the land level continues as one proceeds further and further inland. Between the 100-foot contour and the more easterly 200-foot contour, the lateral interval averages 3 miles. In this intervening area is the second or central group of *villus*, 13 in number: the largest, Kokkare

Villu, contains salt water and has a maximum depth of 10 feet. Between the 200-foot and the 300-foot contours, an average width of 2 miles, is situated the third, or eastern group of 8 *villus*: the most elevated of them, Lunuwila, at about 225 feet, contains salt water. The arrangement of the *villus* inland of the coastal hill barrier takes, therefore, the form of three groups situated at successively higher elevations from west to east, the number of units in each group diminishing as the level rises, the whole topped by a salt lake. In the *villu* area the soil is either red earth or sand. Nearly, but not quite, enclosing it on three sides is a fertile crescent of heavy earth and clay where, formerly, were tanks and irrigation canals, fields, permanent habitation and temples of brick and stone. But in the *villu*

A bear photographed in the Wilpattu Park





A spotted deer runs across the plain in the Reserve

area no vestige exists of any permanent settlement by civilized man: on the other hand, there are prolific remains of the stone tools and pottery of pre-historic man. One may, therefore, safely assume that during Sinhalese times the *villu* area was, as it is now, a habitat of Wild Life."

Historical Background

KING GEORGE V is reported to have said, on entering the Kruger National Park in South Africa, worldwide in fame and popularity, "The wild life of today is not ours to dispose of as we please—we hold it in trust for those who come after". Ceylon is probably unique in its claim to a historical background of wild life protection that goes back without interruption throughout the 2,000 years of its past. Not only was there a ban on killing, but veterinary science was studied and practised by royal decree, and the voluntary feeding of wild animals and birds was considered a meritorious occupation. Sinhalese chronicles and inscriptions bear abundant witness to the fulfilment of these duties.

Their inspiration was undoubtedly religious, but the protection was real, notwithstanding the extensive opening up of land under large irrigation and agricultural projects, up to the time of the European occupation.

Although Game Sanctuaries existed, the first legislative measure of protection, the Game Protection Ordinance, was not established till 1909. An amended Ordinance was introduced in 1926, lapsed, was taken up again in 1934, was passed in 1937, and promulgated on March 1, 1938. It was called the Fauna and Flora Protection Ordinance. The demarcation of the Wilpattu and Ruhuna (Yala) Sanctuaries as National Parks dates from this period. Administration, however, continued to be in the control of the Forest Department till 1949-50, when, for the first time, separate financial provision was made in the Budget for a Department of Wild Life. On December 1, 1950, the new department was officially invested.

The area allotted to the National Reserves in the Island—the term includes Strict National Reserves and Intermediate Zones as well as

National Parks and is distinct from "Sanctuaries" although this latter term is commonly applied—totals 665,340 acres. This measurement has remained statutorily unchanged, although inroads made by various development schemes, proposed and already operative, have in fact reduced, and will further reduce its practical purpose. The distinction is that a Strict National Reserve allows admission only for scientific purposes, while an Intermediate Zone, as its name implies, is intended as a buffer for the National Park, and shooting is permitted on a licence during the Open Season. The National Park is open to the public "to study and observe the fauna and flora" and no shooting is at any time permitted within its boundaries. A Sanctuary, on the other hand, may include private land and within it "any form of human

activity may be permitted except hunting and shooting".

Wilpattu and Ruhuna, up to four years ago possible only to jeep-owners, have early associations with Game Sanctuaries. Ruhuna was first declared a Game Sanctuary in 1898; Wilpattu in 1902. It is a matter for comment, in view of these associations, that one of the earliest activities of the new department of 1951 was the discouragement of long-established poaching habits, particularly in Wilpattu, where 26 old poaching sites were discovered within the area of the so-called National Reserve.

Accessibility

IT is obvious that if a National Park is to serve its purpose the primary consideration must be

A watch-hut overlooking a water-hole at Wilpattu



its accessibility. To this end there must be, in order of importance, (a) roads, (b) accommodation. In fairness to the department it must at once be stated that, with the limited grant available, results in this short period have been astonishing. Yala is a comparatively small area of 52 square miles, with Tissamaharama 8 miles away and Hambantota 20, and with a much better access road than has Wilpattu, which perhaps accounts for its greater popularity; Wilpattu on the other hand is 252 square miles in extent, with no nearby accommodation other than the two bungalows within the Park itself and with the minor approach road in a most hazardous condition. It may be remarked here that, once within the park barrier, the difference in the road surfaces cannot but be noticed—which seems a strange thing, considering that the Village Committee has only 5 miles of road length to look after and the Park has something like 250, including jeep tracks! Nevertheless the figures for Wilpattu show the number of visitors for 1951 as 133, for 1954 as 776; while the revenue earned on admission fees and jeep hires is shown as Rs. 646 and Rs. 4,929.30 respectively. (The figures for 1955 have not yet been published.) It is obvious that with greater motorability and extended living accommodation the revenue earned in the Park will be proportionately greater; that revenue must mean improvements, and improvements will increase popularity. To quote the Warden of the Kruger National Park, commenting on the reasons for its own popularity: "To ensure permanence, or relative permanence, National Parks must be popularized: made attractive to the visiting public". To attract, they must be made easy of access. Then, and only then, can firm public support for their inviolability be aroused.

Pleasant Place

WILPATTU is a pleasant place. The bungalow is comfortable, and reasonable without being luxurious in its appointment. It is now possible

to travel by car, except in very wet weather, from the Maradanmaduwa Bungalow to the central group of *villus*, 13 in number, with their great natural beauty and abundance of bird life, the chief attraction to visitors. The rest have still to be reached by jeep; but as the departmental jeep can be hired, this is not really a deterrent. The gradually increasing stream of motor vehicles *without* guns has accustomed the wild life in the jungles to the knowledge that no harm will come to them, and they will come out on to the roads or into the open glades—another of the physical attractions of Wilpattu—and pose for you, often disdainfully, letting you look your fill. But the human voice and the moving human form outside a vehicle will send them leaping for cover. The ancient enmity between man and beast is too deep a memory.

It is noteworthy in this connection to observe the curiously different behaviour of animals within the National Park and those in the immediately adjacent Intermediate Zone, where shooting is permitted in the season!

But even if your luck is out—and it has to be out indeed for this to happen—and you see no animal at all, there is that about the natural loveliness of this "Elysium on earth" of Bell's outcry of thanksgiving when he first saw Wilpattu in 1896, that in itself rewards. "That wondrous hush which pervades and sanctifies nowhere blesses more gently than in these forest lovelinesses, where man and nature live together in peace, by man's intervention secure from man. Wilpattu is only a very small acreage by comparison with the 9,000 square miles of the Kruger National Park in South Africa, or the Yellowstone Park in the United States, or the Banff National Park in Canada: but within its restricted compass it can exhibit to the visitor almost the whole range of the faunal wealth of this Island. Wild flowers and vegetation is apt to be passed by, unless one is oneself inclined to botany; and it is with the shock of new discovery that one sees the staff collection, numbering presently about 200 and constantly being added to, of



A herd of deer at the Wilpattu National Park

expertly taken Kodachrome colour transparencies of the wild flowers of the National Park and over 500 botanical specimens, mounted and classified. The Report economically understates: "Much valuable and interesting information about the Dry Zone flora was gathered in the course of this work".

Other Discoveries

NEITHER is this aspect of scientific appraisal confined to the natural features. In the less trodden areas one may be shown other discoveries, of traces of human habitation, ruined tank bunds, expanses that once were fields; in the *villu* area remains of stone tools and pottery of pre-historic man, so profusely

scattered that they may be picked up with ease; evidence of a coastal line now some miles inland; "near desert" conditions presently forming through erosion, and the means proposed to save the land; a hill of solid chert, 300 feet high and about $\frac{1}{2}$ a mile wide, unique in the Island, on its summit a buried *dagaba* and strewn pedestals of rock and chert with rain-filled sockets in which pillars stood, now a plainly visible elephant road; an important discovery of a group of ruins, the existence of which had passed out of living memory, crowning a large, isolated rock, with the *dagaba*, strangely, still intact and below it inscriptions of the 5th century naming the king who built it. "The Archaeological Department inspected and surveyed the site, and took estampages of these and other inscriptions found in the park."

Wilpattu is not only a place of beauty for the delectation of visitors. There is a positive contribution being made there to the content of scientific knowledge concerning the history and geology, as well as the study of animal and vegetable life, of this our Island. The national enrichment of this aspect of the department's work need not be stressed.

Words read in the Administration Report of the department in the second year of its existence ran through one's mind " . . . there is ample scope for initiative and resource ; and the opportunities for exploration, study and observation, are considerable ; but the life is one of loneliness, isolation, and danger ; food is an ever-present problem, and sometimes, privation has to be endured ; travelling is hard, and vigilance cannot be relaxed at any time if encounters with dangerous animals at close quarters are to be avoided : the men who do well under these conditions are the men with aptitude for the work of this department ".

The visitor has no share in these hazards. Living comfortably in the Park bungalow, escorted in jeeps or cars along roads made motorable by, in many cases, the manual labour of the staff themselves ; observing the life of the jungles in perfect safety because the "protection" of both animals and men inherent in the term National Park is in this case real : it is difficult to associate this apparent holiday atmosphere with the lives of these men when they are not showing visitors around. One sees, a serious application of its purpose, contained in the clause relating to the functions of the department that reads " . . . the study of all aspects of the lives of wild animals, the discovery of changes in their living conditions and populations and the equilibrium of nature generally, and the taking of remedial measures for their preservation and protection ".

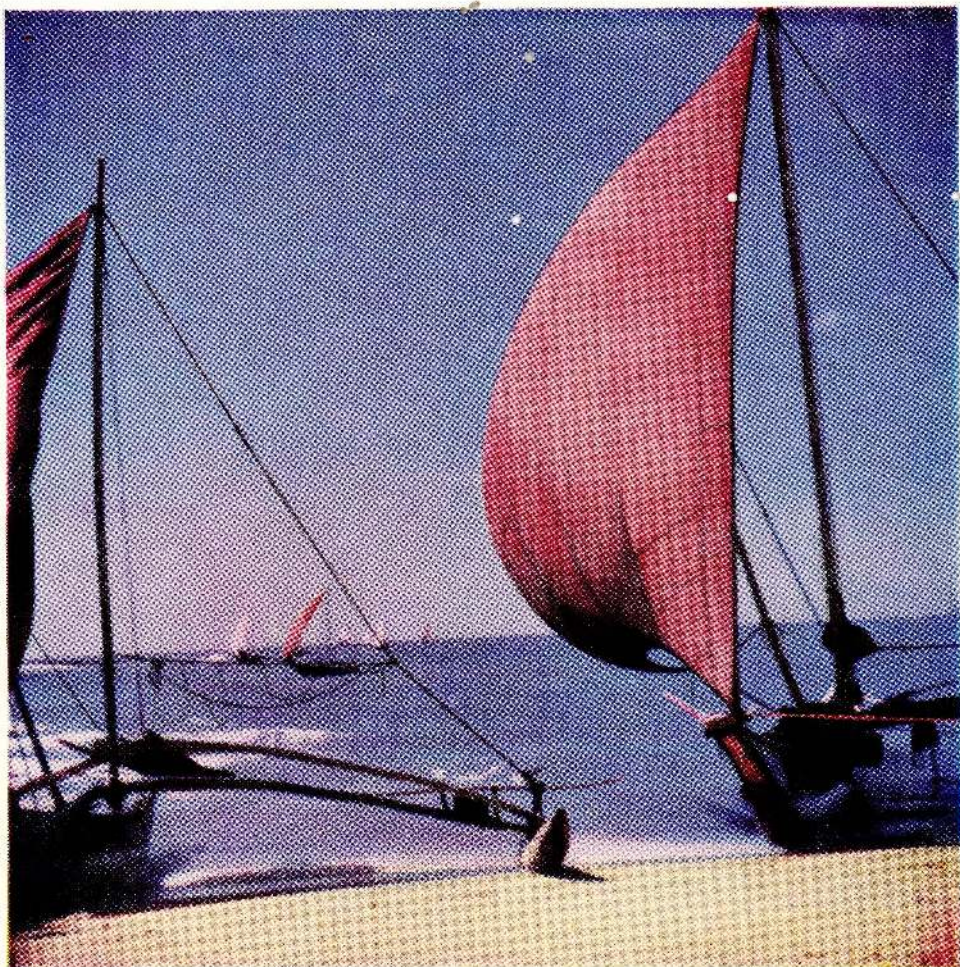
Eye-witness Accounts

"THE study of all aspects of the lives of wild animals . . .", That this is actively and skilfully

adhered to is evident in the eye-witness accounts of such secret matters as the mating of elephants ; a python strangling its prey ; animal techniques of attack and defence, their habits, the routine of their lives ; the photograph of a leopard asleep, a parading peacock, the shyest and most wary of birds—taken not with telefoto lenses and extraordinary photographic appurtenances, but by the guards themselves, with box-cameras and jungle-craft.

"A pleasuring ground for the benefit of the people" was the declared purpose for the establishment in 1872 of the first National Park in the world, the Yellowstone National Park in Canada. In the 12th century the Sinhalese king Nissanka Malla reigned in Ceylon and inscribed on stone his edict, repeating it throughout his kingdom : "ordering by beat of drum that no animals should be killed within a radius of 7 *gav* of the city of Anuradhapura, he gave security to animals : he gave security to the fish in the great tanks . . . and he also gave security to birds". In the Colombo Museum now is a stone pillar taken from the Abhaywewa Tank, now known by its Tamil name Basavak Kulum, dated by Dr. Muller to the reign of King Kasyapa V, in the first half of the 10th century, with an inscription on it regulating the fishing in the Abhaywewa Tank. Constantly in the chronicles and in the Buddhist literature of the past, back to its earliest records, one finds injunctions laid down and impressed by law regarding the protection and preservation of "the birds of the air and the beasts of the field and in the waters under the earth"—in Christian parlance. But "wild life protection is not a matter of legislation only : laws have no perpetuity". The perpetuation of Wild Life Reserves and the honouring of their intention can be ensured only by widespread interest in their preservation, "for the benefit of the people, their education, and their enjoyment."

(The photographs on pages 10, 11 and 12 are by Christopher Wickremasinghe.)



Fishing Boats

The Walawe Ganga Scheme

D. W. R. KAHAWITA

THE Prime Minister, the Rt. Hon. Sir John Kotelawala, recently inaugurated work on the Walawe Ganga reservoir scheme, the second multi-purpose project to be undertaken in Ceylon after the country gained her Independence.

The Walawe Ganga is one of Ceylon's large rivers. It enters the sea on the southern coast near Ambalantota, 10 miles west of Hambantota. It is watered by the rains that fall on Horton Plains, which in turn feed the beautiful stream that flows beside Belihul Oya Rest House. The famous Haputale Gap and the Pass are also in the hinterland of its watershed. All the hills, valleys and tanks that you see as you climb Haputale Pass form the rain collecting area of Walawe Ganga. What you see from this Pass are the 900 odd square miles of land, partly in jungle, tea, rubber, paddy and chena cultivations.

200,000 Acres

ALL the rain that falls in this area finally finds its way to Walawe Ganga and then to the sea at Ambalantota. In a year as much as 1,150,000 acre-feet of water flow into the sea and with it much of our top soil.

To give you an idea of what an acre-foot of water means—if an area of one acre is inundated to a depth of one foot, then that volume is called one acre-foot of water. Now you can imagine what 1,150,000 acre-feet of water would mean. If this quantity of water can be stored and used for the development of the land, we could cultivate nearly 200,000 acres of paddy for one crop a year, and produce 6,000,000 bushels of paddy. In money it would mean 72,000,000 rupees worth of food, which we now import from China, Burma, India and elsewhere.

If this water can be used to generate hydro-electric power, we could produce as much power as is now produced under Laxapana, light our

houses, operate our radios, cook our food, wash our clothes, iron it and work the machinery of tea and rubber factories by means of it. Yet hitherto, all the potential wealth has gone to sea.

The site selected by the Irrigation Department engineers is located in a small village called Embilipitiya, at the 104th mile post on the road from Pelmadulla to Ambalantota. At this point the river that had its rise at Belihul Oya, Horton Plains and Haputale Pass, enters the plain through a narrow valley, which offers many advantages for the construction of a dam.

Huge Dam

AT this point the river receives rain from 634 square miles of land and has an unfailing annual supply of 1,150,000 acre-feet of water. The Irrigation Department engineers have decided to hold the water here and irrigate the lands below for growing rice as the main crop with cotton, tobacco, chillies, onions, &c., as subsidiary crops. At the same time it is possible to generate 6,000 k.w. of electric power for distribution in the surrounding country.

The entire engineering enterprise is no small task. How will this be done? At the Embilipitiya site the river will be dammed by an enormous earth embankment 100 ft. high at the river section and 17,000 ft. long. This earth embankment will be so huge that it will carry a road atop wide enough to take two lanes of traffic and still have sufficient room for parking.

An earth embankment is not safe unless there is a means of directing the floods or surplus water over it. For this purpose the engineers have provided a concrete dam in the central section of the earth dam. This massive concrete structure is 1,000 ft. long and 120 ft. high.

To pass the flood water there will be nine radial gates, each 40-ft. long and 30 ft. high, which can be raised and lowered from a bridge on the top of the concrete structure.

When these gates open, as much as 260,000 cubic feet of water per second can be passed from the reservoir to the river below.

Power House

WHEN a river of this magnitude is dammed completely it will tend to silt the reservoir so formed upstream. To minimise the effect of silting and to prolong the life of the reservoir a set of gates is provided at the foot of the dam through which the siltbearing water can be passed from the reservoir to the river below. These gates are opened and closed from a gallery located below the water line and in the belly of the dam. The operation of these gates during flood will control the amount of silt deposited in the reservoir bed.

Having controlled the water of the river the next step is to use this water to benefit the country. How will this be done? On the right bank of the river and at the right hand end of the concrete dam is located the power house, which will convert the energy in the flowing water into hydro-electric power.

This water, after passing the turbines (machinery that converts the energy to generate electricity) will be passed on to a "yoda ela" to take the water far out to irrigate the land commanded by the "yoda ela". Some of the water from the turbines will be passed back into the Walawe Ganga to be picked up at the Liyangahatota Anicut, which was constructed nearly 50 years ago to feed the channel system under this scheme.

Headworks

IN addition to the sluices and the inlet works to supply water to the hydro-electric turbines and the irrigation channel, there will be an outlet

for the water supplied for domestic purposes to the towns along the southern sea-board and to the new cities that will come up when the scheme is completed.

On the left bank of the river there will be a giant tower, rising above the water level, to control the water and pass it to a second "yoda ela" on the left bank of the river. This channel or "yoda ela" will take the water towards Hambantota to irrigate the lands to the east of Walawe Ganga. These form what the irrigation engineers call "the headworks" of the project.

In addition to the headworks there will be a supply system. This will consist of the right bank "yoda ela", which will take the waters towards Tangalla and in a length of 28½ miles will irrigate 28,500 acres for a *maha* and a *yala* paddy cultivation. This channel, in its course towards Tangalla, crosses an important tributary of Walawe Ganga called Hulandulu Oya. Since there is plenty of water and electricity energy available, the engineers have decided to create a secondary reservoir across Hulandulu Oya.

This reservoir, beside its own water supply, will be augmented by the waters of Walawe by a pumping scheme to pump the water from a lower level to a higher level. From here it is proposed to make a high level channel commanding 5,000 acres of *maha* paddy and 5,000 acres of *yala* crops consisting of cotton, sugarcane, chillies, onions, tobacco, &c. The main channel will continue towards Tangalla, Beliatta, &c. to bring new prosperity to the people living in this area.

The development of irrigation facilities in a region offers facilities for the development of the highlands also. These highlands are required to build homesteads, to develop civic settlements, and provide other social and economic amenities. To this end another 15,000 acres of land have been set apart for development. This vast development of 48,500 acres on the right bank of the Walawe will become possible by collecting the rain that falls in the hill country above Embilipitiya.

The development of the left bank of the river will be less because there is already a large development scheme on there, under Ridiyagama Tank; and in order to conserve the resources of the existing schemes a large area of land will have to be left undeveloped. However, a left bank channel will take the water very near Hambantota, irrigating 12,000 acres in a length of 36 miles.

A short distance away from the main dam and below it the Walawe Ganga is fed by another large tributary called Mau Aru. This river gets its water from the rain that falls around Koslanda, Wellawaya, and the Hambegamuwa Wewa—the large sheet of water one sees towards the south as one climbs Haputale Pass.

Assured Supply

TO make use of this water which now goes to waste, another secondary reservoir has been designed above the point where this tributary crosses the left bank "yoda ela" of Walawe Ganga reservoir. With the water so impounded it is proposed to irrigate an additional 6,000 acres for a "maha" paddy cultivation, and at the same time hold back a certain volume of stand-by water to take over a part of the left bank channel irrigation load.

By this means it has been possible for the engineers to increase the hydro-electric power potential of the Walawe Scheme. Here again, irrigation development will make it possible to open up another 5,000 acres for highland development. Thus the left bank scheme as contemplated will enable 18,000 acres of new irrigable land and 5,000 acres of highland to be developed.

In addition to the new acreage that will be brought under cultivation by the implementation of Walawe Ganga reservoir, 15,000 acres of the existing paddy fields in the valley will have an assured water supply for two cultivations a year, where only one cultivation is possible now.

When all these benefits are combined and all the land in the valley is developed, this scheme is

going to change the entire social and economic aspect of "Ruhunu Rata".

From the point of settling and rehabilitating the people in the region, it will offer new and ample opportunities for something like 100,000 persons in agriculture and allied employment. To cater to the needs of such a large population, new cities, towns, villages, &c., will have to be built, providing all modern amenities.

What will it cost the country to achieve this object? In a project of this magnitude where execution will have to be spread over a number of years, it is not possible to make a sure forecast of expenditure. However, according to the present trend in world markets, the cost of labour, materials, machinery, &c., the estimated cost of the development scheme, spread over a period of eight years is 220 million rupees. No doubt a large amount of money to be spent on a single project; but in an undertaking of this nature what matters is not the money spent but the benefits to the nation.

Granting that the expenditure of 220 million rupees is justified, one would naturally ask what will be the return? The main development under this project is the cultivation of rice and the generation of power. Therefore the main sources of income should be under these two groups.

Food Crops

FROM the food production point of view, there will be 2,580,000 bushels of paddy produced every year, which represents a little over 15 per cent increase in the annual production of rice in Ceylon. Since the import of rice amounts to about two-thirds of our requirements, the production of such a large quantity of rice will take the country a step further towards self-sufficiency. In addition to this very tangible money crop a variety of subsidising food crops can be grown under this scheme, thereby securing a better balanced diet for the people of Lanka.

(Continued on page 32)

Vocational Training in Ceylon

THE responsibility for the organization and administration of vocational training is divided Ministry-wise, the Ministries responsible being the Ministry of Education, Ministry of Labour, and the Ministries under whose jurisdiction lie the various Works Departments that employ labour.

The Ministry of Education is responsible for pre-vocational education in the junior and senior secondary schools and for technical education in the Ceylon Technical College. The responsibility of the Ministry of Labour lies in the field of apprenticeship and other vocational training programmes mainly devoted to preparing persons for employment in private industry, and in the matter of co-ordination of vocational training in general. The other Ministries referred to are responsible in so far as their departments run training schemes of a pre-apprenticeship or an apprenticeship character to meet their own particular needs. Some of these Ministries and departments are listed below :

Ministry	Department	
Transport and Works ..	(1) Basic Technical Training Institute	Pre-apprenticeship
	(2) Railways	
	(3) Port Commission	Apprenticeship
	(4) Public Works Department	
	(5) Government Factory	
Lands and Land Development	(1) Survey Department	Apprenticeship
	(2) Irrigation Department	
Home Affairs ..	(1) Department of Cottage Industries	Apprenticeship

Scope of Vocational Training

(A) *In Schools.* Pre-vocational education is being gradually introduced into Schools, especially the junior section where the ages of pupils range from 11 to 14. At the end of this stage, a fitness test is held to decide those who are qualified to proceed to a Senior Secondary education. The Junior Technical Schools however are intended for boys with a bent towards a technical type of education. In course of time,

selection for these Technical Schools will be partly based on the cumulative school records and it is not the intention to admit to these Schools only the failures of the Standard 8 fitness test.

(B) *Technical Colleges.* Under the Colombo Plan, three Junior Technical Colleges will be established in the near future. One at Galle will probably be started in January, 1956, while those for Jaffna and Kandy are in the initial stages of planning.

The courses of instruction planned for these Colleges are—

1. *A full-time Two-year Course.* The first year will be a general wood-metal course with allied subjects intended to test and train the aptitudes of the students. In the second year, specialization will begin and at the end of the course these students will be available to industry as apprentices.

2. *Part-time Courses.* These are for apprentices in industry who will be released for day classes.

3. *Evening Classes* for tradesmen and others who wish to improve their proficiency and skill in the trades in which they are employed.

The Courses offered are—

(a) *Basic Courses :*

1. Engineering, fitting, turning and machining.
2. Carpentry, joinery, cabinet-making.
3. Electric wiring.
4. Motor mechanics and auto-electricity.
5. Commercial practice.

(b) *Allied Subjects.* These will be Language, Trades Calculation, Technical Drawing, Technology and General Elementary Science. If and when the demand arises, other courses such as radio, plumbing, and surveying, will be included in the curriculum of the Schools.

Numbers

THE plan is to take in the first year 80 full-time pupils and another 80 in the second year, giving a total of 160 at any time in a College. The numbers attending the part-time and evening courses will naturally be in relation to the demand for training.

Staff and Equipment

THE first steps will be to make use of the services of persons who have had a training abroad. It is hoped to induce competent persons from industry to join the staff of the College.

Equipment is being supplied under Colombo-Plan aid. The Galle Junior Technical School is being equipped on a co-operative basis by the United Kingdom, Canada, Australia, and New Zealand. The Jaffna and Kandy Schools are being equipped with aid from New Zealand.

Apart from the pre-trades training in the junior and senior secondary schools, no separate organizations exist for training skilled or semi-skilled workers below the age of 14 years. The Education Ordinance requires that no persons under the age of 15 years should remain out of school and since labour legislation prevents the employment of young persons under 14 years of age in shops and offices, as a practical rule no person under 14 years of age is generally taken as an apprentice.

(c) *For Adults.* The training systems in operation are limited in scope and methods since they are confined to the individual needs of the establishments concerned and as supplementary training, except where it is given within the plant, as for example, at the Government Railway Workshops, is hardly ever given.

Problems of Co-ordination

THE main task here is to set up minimum standards of training and to co-ordinate such training so that the standards of skill attained would be both of a desirable and uniform standard. The need for co-ordinating machinery

was realized some time ago, but it was only recently that the Inter-Departmental Co-ordinating Committee on Apprenticeship was established for implementing such co-ordination.

Representation on this Committee includes the interested departments of Government as well as private industry. Its objects are—

- (a) to lay down standards of training required for different types of occupation ;
- (b) to decide the numbers required to be trained from time to time in any occupation ;
- (c) to allocate among different departments and firms the numbers to be trained from time to time for different occupations ;
- (d) to lay down standards for tests of trainees on completion of their training and for those claiming to be skilled, and to issue certificates of competency ; and
- (e) to advise generally on all questions related to technical training and apprenticeship training.

This Co-ordinating Committee has established six sub-committees which deal with the needs and problems of the electrical, motor engineering, printing, metal work, building, and wood work trades. The secretariat for these sub-committees is provided by the Department of Labour.

Co-ordination has only just begun and will be further extended. Moreover, the recommendations made by the above-mentioned sub-committees are on a voluntary basis and it remains to be seen whether legislation for their enforcement would be necessary. It is also too early to say how institutions which dealt with training in the past will react to these recommendations.

The courses of training recommended by these sub-committees are limited to the training of apprentices in the various skills required by the trades ; they do not contain courses for improving or up-grading workers already employed. Nor do the recommended courses deal with the problems of recruitment or training of teachers

and instructors. The Education Department has set up, under the Colombo Plan, an institution for training vocational instructors needed for the workshops set up under the schemes of the Education Ministry for pre-vocational and pre-trades training. In the field of apprenticeship employers undertaking the training of apprentices are expected to have competent foremen or charge-hands who would be able to impart the necessary on-the-job instruction, while the instructors at the Ceylon Technical College would be expected to give the necessary related supplementary instruction. It is expected that the Ceylon Technical College will be able to cope with the problems of training vocational teachers and instructors for apprentices as and when the need arises for such personnel. The Government has already embarked on a mission in TWI under an agreement with the I. L. O. and it is expected that, as the mission progresses, the Government would be able, through the spread of TWI, to improve the efficiency of supervisors in general and this, it is hoped, would bring about an improvement in the standard of supervision in the field of apprenticeship as well.

The schemes of apprenticeship recommended by the sub-committees of the Co-ordinating Committee deal with both theoretical and practical instruction. The general principle is that practical instruction will be given at the employers' workshops and that employers would release their apprentices with full pay for a day or half a day per week for supplementary related instruction at the Ceylon Technical College or a similar technical institute. The supplementary instruction at this technical institute will be both theoretical and practical, but with emphasis on theoretical instruction. In most cases it is proposed to hold tests on the termination of training and to issue certificates of competency to those who qualify. The tests will be compulsory for those who come under the recommended schemes but will be optional to any person claiming to possess any particular skill. Certificates will be issued to such persons

as well. It is expected that when this system of examination and certification has been in operation for a few years, it would be possible to establish minimum standards of skill in the occupations brought under review by these sub-committees.

The only continuous employment information programme in existence at the moment is the Employment Information Programme set up under the aegis of the Employment Service Mission of the I. L. O. in 1951-52. This Programme is based on information collected from about 550 establishments and covers about 60 different types of industrial activity. The occupational break-down of the information is rather broad since the operations service and maintenance occupations come under one group and the administrative, technical, clerical and sales occupations under the other, both groups being also broken down by sex.

Added to this Programme is information collected regularly from the Employment Exchanges; and the Inter-Departmental Co-ordinating Committee proposes to collect annually data on the numbers of skilled workers and of apprentices in those trades so far selected by the Committee for consideration.

Private industry is given representation on advisory Councils attached to such training establishments as the Ceylon Technical College and the Basic Technical Training Institute and co-operation exists on the one hand by those training establishments offering to train workers needed by private industry and on the other by private industry's willingness to absorb some of the trainees turned out by those establishments. At present there are no national schemes for apprenticeship; but when the work of the Inter-Departmental Co-ordinating Committee on Apprenticeship becomes effective, such schemes, it is anticipated, would grow into existence. The Ministry responsible for the work of this Co-ordinating Committee is the Ministry of Labour.

(Adapted from an article in the 'Labour Gazette' of October, 1955)



A 9 h.p. motor boat from Denmark which is being used to demonstrate improved fishing techniques to fishermen on Ceylon's east coast. An FAO expert (jumping from boat) is carrying out the demonstrations and teaching local fishermen to use Norwegian worm-bait, made of plastic material

Developing Ceylon's Fisheries

IN spite of the rich fisheries surrounding its shores, Ceylon's fishing industry, apart from two experimental trawlers, had long been carried on with primitive equipment. As a consequence, fresh fish was scarce and dried fish had to be imported to help meet the demand.

Under a project initiated some four years ago, the Government of Ceylon has reorganized its Fisheries Department and undertaken the development of its fishing industry with the assistance of the Food and Agriculture

Organization of the United Nations (FAO) and the Colombo Plan, which is providing personnel and substantial equipment to the value of \$2 million. The first stage of this development programme was for an FAO expert to survey the types of boats in use in different areas. No mechanized boats were in use at the time. The second was experimental work with engines provided by FAO and sold to fishermen at half price, after proper training in their use and in improved fishing methods. The third stage was reached recently when the Canadian Government

provided 40 engines under the Colombo Plan to be allocated for purchase at cost by small craft operators, after installation under the supervision of an FAO expert.

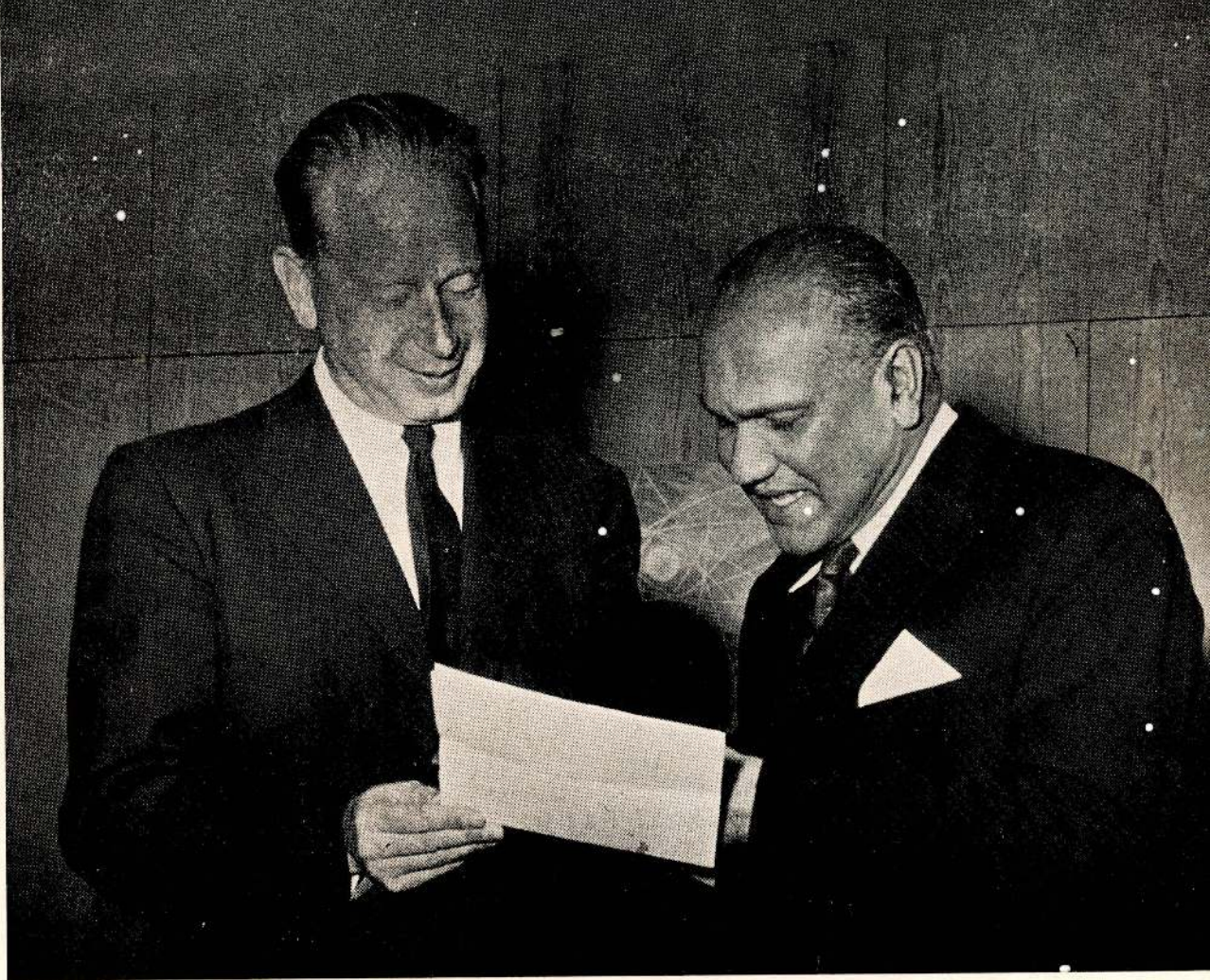
Throughout all these stages the FAO experts enjoyed the enthusiastic support of the Government and worked closely with officials of the Colombo Plan. Local personnel has been trained in the maintenance of both the larger fishing vessels and small mechanized craft owned by inshore fishermen, while improved gear and mechanical equipment has been introduced for all types of fishing. Various programmes of experimental fishing have also been undertaken, inland fisheries and fish culture encouraged

and developed, and training courses set up for local fisheries officers.

The fourth and final stage is now in sight, when the need for engines which has thus been created can be met by normal commercial methods. Encouraged by the results obtained, in the form of increased catches through improved gear and by mechanization which enables them to cover wider areas, fishermen are paying the Fisheries Department the full cost price of available engines (between Rs. 2,500 and Rs. 3,300), making a down payment of one-third and paying the balance over two years without interest, and they are clamouring for more engines on the same terms.

Ceylonese fishermen load their craft and get ready to begin a day's fishing





Sir Senarat Gunewardene presents his Letters of Credence to the Secretary-General of the United Nations, Mr. Dag Hammarskjöld

Foreign Affairs

HIS Excellency the Governor-General, Sir Oliver Goonetilleke, declaring open the Royal Agricultural and Food Exhibition at the Colombo Racecourse on January 25, read the following message from Her Majesty the Queen :—

“On the occasion of the opening of the Royal Agricultural and Food Exhibition I send my warmest good wishes to you and to the Government and people of Ceylon. The affection and regard with which my husband and I were received in your beautiful country

barely two years ago are still fresh in my mind. The prosperity of Ceylon has depended and still depends upon the orderly development of its agricultural resources, and I trust that this Exhibition may usher an era of progress in agriculture and with it the continued stability and prosperity of Ceylon”.

Among the participants at the Exhibition were the Governments of United States, India, and Japan, who had their own stalls to exhibit their activities,

The Exhibition had as its main object the presentation to the nation of twenty-five years of agricultural development in the Island.

Queen Mother to open C-Plan Exhibition

HER Majesty Queen Elizabeth, the Queen Mother, has accepted an invitation from the Government of Ceylon to visit Ceylon during the early Spring of 1957. Her Majesty has agreed to open the Colombo Plan Exhibition and thereafter to spend approximately three weeks in the country.

This will be Her Majesty's first visit to the Island and the third visit of a member of the British Royal Family since Independence.

P. M.'s Message to India

THE following is the text of a message sent to the Prime Minister of India by the Rt. Hon. the Prime Minister of Ceylon on the occasion of the Sixth Anniversary of the Republic of India, January 26, 1956 :—

"I have great pleasure in sending you on behalf of the Government and people of Ceylon sincere good wishes on the occasion of the Sixth Anniversary of the Republic of India".

P. M.'s Message to Australia

THE following is the text of a message sent to the Prime Minister of Australia by the Rt. Hon. the Prime Minister of Ceylon on the occasion of the Anniversary of Australia Day, January 26, 1956 :—

"On the occasion of the Anniversary of Australia Day the Government and people of Ceylon join me in sending you our sincere felicitations and good wishes for the coming year".

New German Envoy to Ceylon

THE Government of the Federal Republic of Germany has, with the concurrence of the Government of Ceylon, decided to appoint

Dr. Theodor M. Auer as Envoy Extraordinary and Minister Plenipotentiary to Ceylon in succession to His Excellency Dr. George Ahrens.

Dr. Theodor M. Auer was born on January 24, 1899, at Kiel. In 1926 he was attache in the Foreign Office and in April, 1930, Secretary of Legation in the Foreign Office. From 1940 to 1942 he was Observer at the Armistice Delegation for Economics at Casablanca. In May, 1941, he was promoted Counsellor of Legation, 1st Class. Since June, 1953, he has been attached to the Foreign Office.

New Portuguese Minister to Ceylon

THE new Portuguese Minister to Ceylon, Dr. A. B. Laborinho, arrived in the Island on January 25 and presented his credentials to His Excellency the Governor-General on February 2. On February 1, he called on the Prime Minister.

Dr. Laborinho is at present Portuguese Minister in Karachi and will be Minister to Ceylon concurrently with residence in Karachi.

K. L. M.—Air Ceylon Service Inaugurated

THE K. L. M.—Air Ceylon Service was inaugurated here on February 9, with the arrival at Ratmalana Airport of the K. L. M.—Air Ceylon Lockheed 749 Constellation. It made its first international flight from Amsterdam to Colombo, with twenty-one distinguished passengers aboard.

The aircraft made a special landing in front of the Air Ceylon hangar, which was bedecked with flags and bunting and carpeted for the occasion.

The Hon. Major Montague Jayawickreme, Minister of Transport and Works, Dr. N. M. Perera, Mayor of Colombo, and Mr. J. L. M. Fernando, General Manager of Air Ceylon, were present amongst the large gathering that waited to give the plane and its passengers a warm welcome.

Amongst the distinguished visitors were Mr. I. J. Algera, Dutch Minister of Transport, and Waterstat; General L. A. Aler, K. L. M.'s President; Lord and Lady Sempill; Ceylon

Ambassador to Rome, Mr. H. A. J. Hulugalle, and Mrs. Hulugalle; Sir Frank Nixon of the London Chamber of Commerce; Mr. C. A. Meakin, President of the Ceylon Association in London; Mr. B. G. van Os van Delden, K. L. M. Vice-President; Mr. J. W. F. Backer, Dutch Director-General of Civil Aviation; Lady Corea; Lady Hore-Belisha; and Mr. F. van Zinniqu Bergman, Secretary of K. L. M.

The Mayor of Rome, Professor Salvatore Reveccini, who was expected to make the trip, was prevented by prior engagements. He sent a message of goodwill and friendship to Ceylon. Also prevented from coming over was the Mayor of Bombay, who had resigned from office.

The freight included rare species of waterfowl—a beautiful pair of Manchurian shellducks. They

were a present to the Prime Minister, Sir John Kotelawala, from the Blydorf Zoo, Rotterdam.

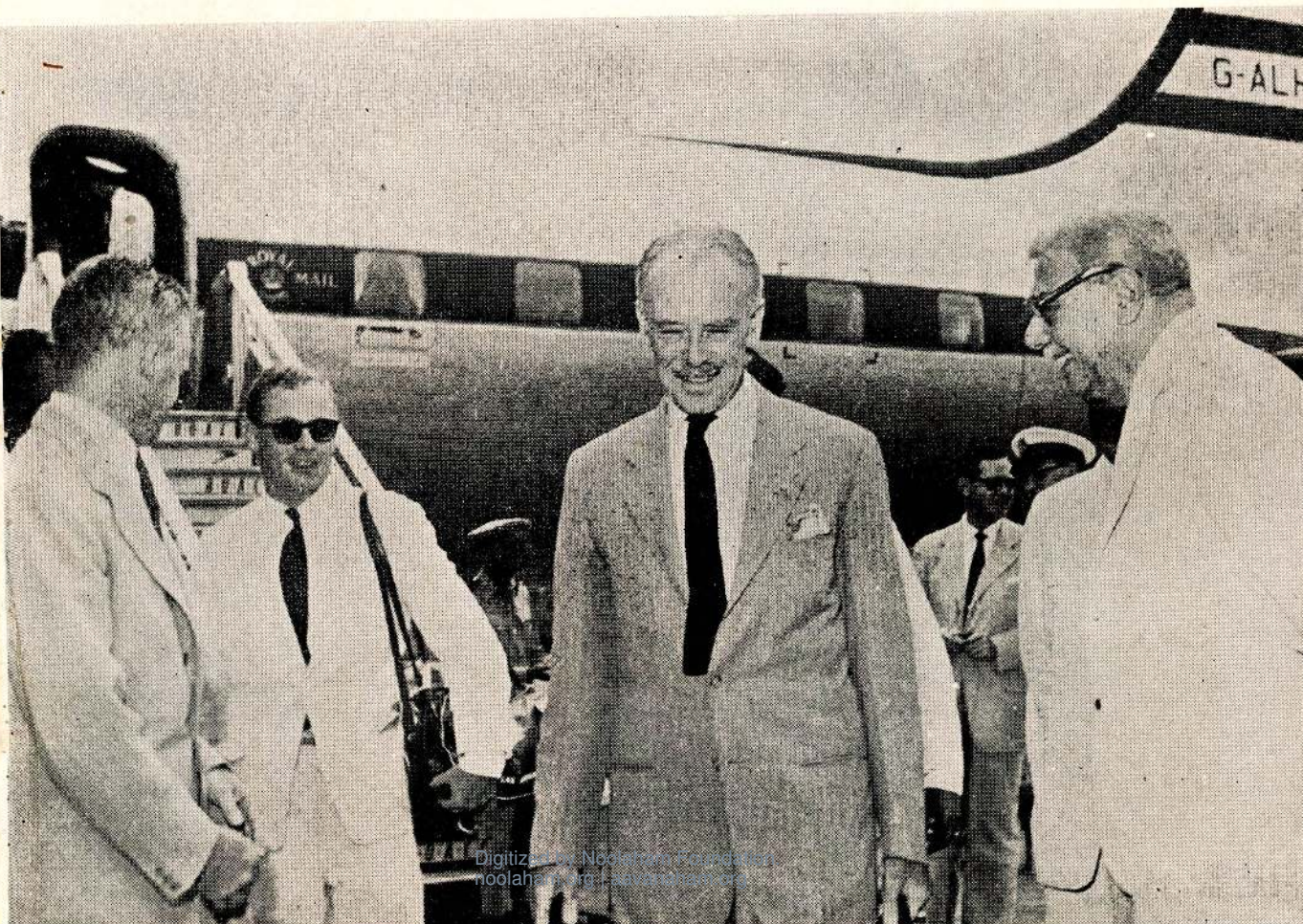
The plane left on its return journey on February 17.

Gift of Milk from the U. S.

THE Government has accepted, on behalf of the people of Ceylon, a gift of 14 million pounds of powdered milk from the people of America. The gift is specially intended for school children and represents a year's supply of milk food necessary to enable a midday glass of milk to be given to every school child in Ceylon during the school year.

This gift is made direct from the people of America to the people of Ceylon and is being transmitted to the recipient quarter through the

The Rt. Hon. R. G. Casey, Australian Minister of External Affairs, who visited Ceylon in March, with (extreme left) Mr. R. A. Peachey, Acting Australian High Commissioner in Ceylon, and (extreme right) Mr. J. Aubrey Martensz, former Ceylon High Commissioner in Australia



Co-operative for American Remittances to Everywhere (CARE). It is expected that, if so desired, the gift will be repeated over a three-year period, which would permit time for Ceylon to build up her own internal resources for the supply of milk.

The Prime Minister has expressed his sincere appreciation of this gesture of goodwill from the people of America to the people of Ceylon.

Ceylon at Mathematical Education Conference

THE Government of Ceylon has nominated Dr. K. S. Gangadharan, Assistant Lecturer in Mathematics, University of Ceylon, to attend the Conference on Mathematical Education in South Asia. The Conference sponsored by the Tata Institute of Fundamental Research, the National Committee for Mathematics in India, the International Mathematical Union, and UNESCO, was held in Bombay from February 22 to 28, 1956.

Ceylon's Representative to Health Congress

THE Government of Ceylon has nominated Dr. V. Rajalingam of the Health Department to attend the Health Congress at Blackpool, England. The Conference under the auspices of the Royal Society for the promotion of Health will be held at Blackpool from April 24 to 27, 1956.

Australian Expert on Citrus Cultivation

THE Australian Government has agreed to make available to local growers the services of an expert in the cultivation of citrus. He is Dr. Kiely of the Department of Agriculture, Sydney, and is due to arrive here shortly.

This was stated by Mr. Gladwin Kotelawala, who returned to Ceylon towards the middle of January after an extensive two-and-half months' observation tour of Australian Agriculture under the auspices of the Colombo Plan.

Mr. Kotelawala, who also made a survey of the Australian dairy industry, discussed the possibility

of Ceylon obtaining more dairy equipment from Australia under the Colombo Plan. He said that Australia was willing to help Ceylon in that respect too.

New Director of the C-Plan Technical Bureau

THE Council for Technical Co-operation in South and South-East Asia has decided to appoint Dr. Nathan Keyfitz as Director of the C-Plan Bureau for Technical Co-operation. The decision was taken at the tenth policy session of the Council on February 16.

Dr. Nathan Keyfitz is a senior official of the Dominion Bureau of Statistics of Canada and is expected to assume office in Colombo on April 17. He succeeds Dr. P. R. Curtin who left Ceylon a fortnight ago on the expiry of his term of office.

Until the arrival of Dr. Keyfitz, Mr. S. A. Shareef, Deputy Director, will act as Director of the Bureau.

Japanese Industrialists arrive for a Survey

FOUR Japanese industrialists, who are experts in the field of small industries, have arrived in Ceylon to conduct a survey of small industrial ventures and to formulate proposals for their improvement and development.

The four experts are Mr. H. Hori of the Society for Economic Co-operation in Asia; Mr. M. Maritomo, chief of the Japanese rural and industrial section; and Messrs. T. Suzuki and Y. Magae, technical officers of the Japanese Ministry of Trade and Industry. They have undertaken the survey in Ceylon under the auspices of the Colombo Plan.

The survey will cover 11 small industries, comprising the manufacture of agricultural implements, paint brushes, galvanized iron goods, chappals and slippers, cutlery, batteries, pens, pencils, plastic-ware, pen-holders and umbrellas.

The purpose of the survey is to find out to what extent these industries can be mechanized and whether they should be operated on a small scale or purely as cottage industries,

Books about Ceylon

Selections from a Bibliography (continued)

LYN de FONSEKA

Greene, Thomas

(Successively Bishop of Norwich and of Ely.)

The Principles of religion explained and proved from the Scriptures. (Translated into Sinhalese by G. de Zoysa.) To which is prefixed a dialogue between a Mohandiram and his friend through the favour of Hardings Giffard. Colombo, 1818.

Greenwood, John

A Naturalist at Hakgala, *Times of Ceylon Christmas Number*, 1938.

Greeving

(Dutch Sub-Assistant Surgeon who served under Major Adam Davie in the ill-fated expedition of 1803, and escaped the massacre by hiding in a dry well. His *Diary* throws light on the circumstances which extenuated Major Davie's conduct on the occasion. It was first printed in the *Colombo Observer*, Vol. XIV, No. 97, page 4 of Saturday, November 18, 1848, under the heading "Massacre of Davie's Detachment", purporting it to be a true translation from the Dutch by J. G. Kriekenbeek.)

"Greeving's Diary", *JCBRAS*, XXVI, No. 71, Pts. III-IV, 1918, pp. 166-180. Note on "Greeving's Diary", By D. P. E. Hettiaratchi, *JCBRAS*, XXIX, No. 77, Pts. I-IV, 1924, pp. 323-327.

Gregory, G.

Revenue Administration in Ceylon in 1801-02. (Interesting as illustrating a Revenue Officer's Policy in that day.) *C.L.R.*, I—1886-87, pp. 399-400.

Gregory, Lady

Sir William Gregory, K.C.M.G., formerly Member of Parliament and sometime Governor of Ceylon. An Autobiography, London, 1890; Second Edition, 1894.

Gregory, Sir William

(Governor of Ceylon, 1872-1877; M.P., Great Britain.)

Autobiography. Edited by Lady Gregory, London, 1890; Second Edition, 1894; Elephant Kraals. *Murray's*

Magazine, September, 1889; reprinted in *C.L.R.*, IV—1889, pp. 103-104; 112, 119-120; (Ceylon) Botanical Gardens. *Trop. Agric.*, 1889-90, p. 809.

Gregson, Fanny

(Mrs. Arthur S. Liesching.)

Letters from Ceylon, London 1893.

Grenier, F. O.

Slavery in Jaffna, 50 years ago. *C.L.R.*, V—1891, pp. 300-301.

Grenier, Guy O.

(Advocate; Retired Registrar, Supreme Court of Ceylon.)

Ceylon Christmas Debates, by C. A. Lorenz, Colombo, 1866; Reprint Edition by —, Colombo, 1924; The Supreme Court of Ceylon—Its 150th Anniversary. *The New Lanka*, III (2)—1952, pp. 21-29.

Grenier, J. A. R.

Tales of Fish and People of the Ceylon Estuary, Colombo, 1955.

Grenier, Joseph

(K.C., Puisne Justice of Ceylon.)

Leaves from My Life, Colombo, 1923.

Grenier, Sir Samuel

• (Attorney-General of Ceylon; Member of the Executive and Legislative Councils, and first Secretary of the Colombo Municipality.)

Report on the Colombo Municipality, 1866-69; Appeal Reports—Part I, Police Courts, 1872-74; Part II—Courts of Requests, 1873-74; Part III—District Courts, 1873-74, Colombo.

Grey, The Rt. Hon. Earl

The Colonial Policy of Lord John Russell's Administration. 2 Vols, London, 1853. (Ceylon discussed

under the Government of Lord Torrington, 36 pages); Despatches from—to the Rt. Hon. Viscount Torrington, 1847-48 (Papers Relative to the Affairs of Ceylon, London, 1849); Despatches from—1850-51 (Papers Relating to the Affairs of Ceylon, London, 1851).

Gribble, Conrad

(Bridge Consultant Engineer, Ceylon Government Railway.)

Stresses in Railway Bridges. *Trans. Engineering Association of Ceylon*, 1951; Report and Recommendations on Ceylon Government Railway Bridges, *Sess. Paper*, VI—1952.

Grice, A. L.

(Asst. Superintendent, Survey Department, Ceylon.)

The Geodetic Levelling of Ceylon (1926-1929) (With T. Y. Price), Vols. I-II, Colombo, 1932; The Definition of Heights, *Trans. Engineering Association of Ceylon*, 1933.

Grierson, Sir G. A.

(Indian Civil Service.)

Legend of the Marriage of a Sinhalese Prince to a Rajput King in the 13th century (Extract from letter to Waskaduwe Subhieti Terunnanse, by ———, dated October 31, 1892), *M.L.R.*, III—1895, p. 292; The Corporeal Relics of the Buddha, *JRAS*, 1906, p. 1002; Sita's Parentage, *JRAS*, 1921, p. 422.

Grieve, Alison

The Great Kandy Perahera, Colombo.

Griffith, Major Geo. Darby

A Journey, Across the Desert, from Ceylon to Marseilles; comprising sketches of Aden, The Red Sea, Lower Egypt, Malta, Sicily and Italy, Vols. I-II, London, 1845. (With Mrs. George Darby Griffith.)

Griffith, W.

The Palms of British East India, *Calcutta Journal Nat. Hist.*, XIX, pp. 311-355; Palms of British India, Calcutta, 1850.

Grigson, E. S.

Coffee Culture in Ceylon—On the Manuring Coffee Estates, Colombo.

Grimblot, P.

Report of the Committee appointed by His Excellency Sir Charles MacCarthy for promoting the objects of the International Exhibition of 1862 (With J. Capper); Sept. Suttas Palis Tire's du Digha-Nikaya, Paris, 1876.

Grimm, George

The Doctrine of the Buddha—The Religion of Reason. Leipzig, 1926.

Grimm, H. Nicholas

Insulae Zeyloniae Thesaurus Medicus Vel Laboratorium Zeylonicum. Amsterdam, 1679. (Published by Pielat.)

Grinlinton, F. H.

Proposals for a Topography and Cadastral Survey of Ceylon, *Sess. Paper XXIV*—1896.

Grinlinton, J. J.

The World's Columbian Exposition, 1893. Final Report on the representation of Ceylon, *Sess. Paper II*—1895.

Grogan, H. T.

Ceylon Dutch Currency, Spink & Son's Monthly Numismatic Circular London, XVI—1908.

Grousset, Rene

In the Foot-steps of the Buddha, London, 1932.

Grubb, Rev. G. C.

"Full Salvation", Being Twelve Addresses delivered in Colombo in February, 1890, and one at Mildmay Conference, London, in June, 1889. Colombo, 1891; Account of a Mission Tour in Ceylon, London, 1891.

Grube, Dr. Ed.

Descriptiones Annulorum novorum mare Ceylonicum habitantium ab honoratissimo Holdsworth collectorum auctore. *Proc. Zool. Soc. London*, 1874, pp. 325-329.

Grunwedel, Prof. Dr. Albert

Das Sechste Kapitel der Rûpasiddhi nach Drei Singhalesischen Pali-Handschriften. Berlin, 1883; Singhalesischen Masken—*Internationales Archiv fur*

Ethnographie, Leiden. Bd. VI—1893, pp. 1–18, 5 Coloured Plates; *Mythologie du Buddhisme.* Leipzig, 1900; *Buddhist Art in India.* Translated from the "Handbook" of—Revised and Enlarged by James Burgess, London, 1901.

Grylls, James Wilyams

The Out-station; or Jaunts in the Jungle. Second Edition, London, 1848; The Late Major Rogers of the Ceylon Rifles, *M.L.R.*, II—1894, pp. 110–111.

Gubernatis, Count Angelo de

(Well known Italian scholar and writer on Mythology.)

Peregrinazione Indiane: India Meridionale e Seilan. (In this work he devotes two chapters to his visit to Ceylon in January, 1886.) Count Angelo de Gubernatis in Ceylon, *C.L.R.*, II—1886, pp. 420–422; 429–430; III—1888, pp. 3–6; 14–16; 23–24; 29–30.

Gude, G. K.

The Fauna of British India including Ceylon and Burma. Mollusca, Vols. II and III, London, 1914–1921.

Gudger, E. W.

The Whale Shark, *Rhinedon typus* in the waters around Ceylon. *Nature*, CXXXI—1933, p. 165.

Guenther, Konrad

Ceylonfahrt—Genua, Neapel, Port Said, Sues, Aden, Colombo und die Bahnlilien auf Ceylon. Frankfurt—A.-M.; 1913; *Einführung in die Tropenwelt; Erlebnisse Beobachtungen und Betrachtungen eines Naturforschers auf Ceylon.* Leipzig, 1911; *Studien einer Vergleichenden biologischen Landschaftskunde (Europa, Morgenland, Brasilien, Ceylon).* *G.Z.*, 1931, pp. 210–227.

Guha, K. D.

(Technical Adviser on Industries to the Government of Ceylon.)

Industrial Problems of Ceylon, *Ceylon Econ. Journal*, VII—1935, pp. 27–36; Some Aspects of Industrial Planning in Ceylon, *Ibid.* IX—1937, pp. 57–64.

Gunapala, E. W.

The Sinhalese Classical Poem *Muvadev Dā Vata.* Translated into English by —, Colombo, 1938.

Gunaratana, Ven. K.

The Golden Discipline, Penang, 1951.

Gunaratna, A. de S.

- Rajapakse Charitaya: A Short Sketch of the Life of Sampson d'Abrew Wijegooneratne Rajapakse, Mudaliyar of the Governor's Gate and Justice of the Peace for the Island, Colombo, 1892.

Gunaratna, D. F. de S.

The Cultivation of the Grape Vine in the Experimental Garden, Anuradhapura, *Trop. Agric.*, XXVI—1906, p. 158.

Gunaratna, E. W.

A Short Account of the Education and Public Life of Dandris de Silva Gunaratna, Mudaliyar of the Governor's Gate (The "Ceylon Macaulay"), Colombo, 1951.

Gunaratna, V. F.

(Public Trustee, Ceylon.)

Why I am a Buddhist, *The Buddhist Annual of Ceylon*, II (1)—1923, pp. 58–62; Justice in Ancient Ceylon, *The Ceylon Law Students' Magazine*, II (1)—1931.

Gunaratna, V. T. Herat

(Medical Officer of Health, Department of Health, Ceylon.)

Some Aspects of the History and Development of Public Health in Ceylon, *Trans. of the Society of Medical Officers of Health, Ceylon*, XV—1955, pp. 26–39.

Gunaratnam, S. C.

(Manager, Farm School and Experimental Farm, Jaffna.)

The Propagation of the Mango in Jaffna (With W. R. C. Paul), *Trop. Agric.*, LXXXVIII—1937, pp. 86–91; 331–337; The Betel Vine in the Northern Province (With W. R. C. Paul and A. V. Chelvanayagam), *Ibid.* LXXXIX—1937, pp. 281–298; Mango Stocks (With W. R. C. Paul), *Ibid.* XC—1938, pp. 34–35; The Cultivation of the Mango in Dry Zone of Ceylon, *Ibid.* CI—1945, pp. 227–231; CII—1946, pp. 95–100; A Survey of Agricultural Conditions in the Trincomalee Division, *Ibid.* CX—1954, pp. 81–87.

Gunasagaram, S. J.

The Hindu New Year, *The Tamil*, I (5)—1955.

Gunasekara, A. M.

(Mudaliyar of the Governor's Gate ; Chief Translator to Government ; Sinhalese Scholar and Lexicographer.)

A Comprehensive Grammar of the Sinhalese Language—Adapted for the use of English Readers and prescribed for the Civil Service Examinations, Colombo, 1891 ; An English-Sinhalese Dictionary, Balapitiya, 1925 ; A Sinhalese-English Dictionary—Balapitiya, 1915 ; A Dictionary of the Sinhalese Language, Vol. I, Part I, Colombo, 1935 (Co-Editor with Wilhelm Geiger and others) ; *Jñānādarsaya* ("The Mirror of Knowledge"), A Magazine of Arts, Science, and Literature, Edited by —, Vols. I-X, Colombo, 1896-1911 ; Library of Sinhalese Classics, Vols. I-II, Colombo ; *Kusajātaka Kāvya*, Edited with Paraphrase, Notes, Glossary, &c. ; The Derivation of the *Kælē-Bāsa* Names of Some Animals (Appendix :—*The Veddas*—By C. G. Seligmann, pp. 451-454) ; Pre-historic Ceylon, *Ceylon National Review*, No. 2—1906, pp. 130-148 ; The Ring Finger, *Ceylon Antiquary*, I (1)—1915, p. 64 ; Kelani Vihāra and its Inscription, (With H. C. P. Bell), *Ibid.* I (III)—1916, pp. 145-161 ; "The Tree of Ten Thousand Images", *Ibid.* I (IV), 1916, pp. 256-257 ; Derivation of "Tuppahi", *Ibid.* II (I)—1916, p. 63 ; Contributions to the *JCBRAS* include :—Dharna, XXIII, Pt. IV, N. & Q., No. 22, pp. liii-lv ; Nagadipa, XXIV, N. & Q., No. 5, pp. CXX-CXXIV ; Palikada or Halikada, XXVI, No. 70, pt. I, 1917, N. & Q., pp. 45-47 ; Sabaeans and Yavanas, XXIII, N. & Q., No. 26, pp. lxii-lxvi ;

Sinhalese Terms of Relationship, XXIII, No. 67, N. & Q.—1914, pp. XIX-XXII ; The *Nāgās* of Ceylon, XXIV, N. & Q., No. 3, pp. CXXVI-CXXIX ; The *Yakkhas* XXIII, No. 67, 1914, N. & Q., pp. XLVII-XLIX ; Time of Day for Planting, XXIII, No. 67—1914, N. & Q., p. xxxviii.

Gunasekara, B.

(Mudaliyar of the Governor's Gate and Chief Translator to the Ceylon Government.)

A Contribution to the History of Ceylon, Translated from "Pūjāvaliya", Colombo, 1895 ; A Contribution to the History of Ceylon, Extracted from the "Pūjāvaliya", to which are added a List of Native Sovereigns from Vijaya to Paṇḍita Parākrama Bāhu of Dambadeniya and a Glossary (In Sinhalese), Colombo, 1893 ; The *Rājāvaliya*, or a Historical narrative of Sinhalese Kings from Vijaya to Vimala Dharma Suriya II, to which are added a Glossary and a List of Sovereigns, Colombo, 1900 (Sinhalese Edition of *Rājāvaliya* was published in 1899). [Both English and Sinhalese Editions, *Ibid.* Reprinted by the Information Department, Ceylon, 1954.] Glossary of Native and Foreign Words occurring in official correspondence, Colombo, 1893 ; Two Sinhalese Inscriptions : I—Inscription at Ruwanweli Dāgaba ; II—Inscription at Pepiliyana. *JCBRAS*, VII, No. 25—1882, pp. 181-207 ; Three Sinhalese Inscriptions—Text, Transliteration, Translation and Notes : I—Lankatilaka Inscription ; II—*Kuḍumirisa* Inscription ; III—Devanagala Inscription. *JCBRAS*, X—No. 34, 1887, pp. 83-105 ; Translation of the Treaty (of February, 1857) regarding the right of patronage of the Portuguese Crown over the Churches in the Orient, between . . . Pius IX and . . . the King of Portugal, Colombo, 1885.

(To be continued)

THE WALAWE GANGA SCHEME

(Continued from page 19)

From an employment point of view it will provide gainful employment in the cultivation of crops, operation of the project and the subsidiary industries that will be created as a result of the resources available for settling 22,750 families. The assurance of employment is particularly important in this region on account of the rapidly increasing population. Indirectly, employment will be available in the various commercial and industrial undertakings that will spring into being as the population moves in.

On the Land

ELECTRIC power, which in this case is a cheap by-product, will be available in the region at a very low cost and thereby reduce the imports of paraffin and liquid fuels. With electricity available in the rural areas it will help to improve the living conditions of the people.

Above all, the facilities provided by the project will put on the land some 22,750 self-respecting and intelligent families with better opportunities to earn a decent living and to contribute to a prosperous and stable nation.

Printed at the
Government Press, Ceylon