

COMPREHENSIVE REPORT

•

ECONOMIC AND ENGINEERING  
DEVELOPMENT OF BURMA

•

PREPARED FOR THE  
GOVERNMENT OF THE UNION OF BURMA

VOLUME I

AUGUST 1953

KNAPPEN TIPPETTS ABBETT MCCARTHY  
ENGINEERS

IN ASSOCIATION WITH  
PIERCE MANAGEMENT, INC.

AND  
ROBERT R. NATHAN ASSOCIATES, INC.

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VOLUME I

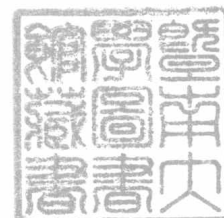
INTRODUCTION  
ECONOMICS AND ADMINISTRATION  
AGRICULTURE AND IRRIGATION  
TRANSPORTATION

AUGUST 1953

KNAPPEN TIPPETTS ABBETT McCARTHY  
ENGINEERS

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KNAPPEN - TIPPETTS - ABBETT - MCCARTHY  
ENGINEERS

(KNAPPEN TIPPETTS ABBETT ENGINEERING CO.)

62 WEST 47TH STREET

NEW YORK 36, N.Y.

PLAZA 7-8001

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GERALD T. MCCARTHY  
WILLIAM Z. LIDICKER  
JAMES H. STRATTON

PLEASE REPLY TO  
SOUTH EAST ASIA OFFICE  
P.O. Box 1484  
PROME COURT  
RANGOON, BURMA  
SOUTH 556 & 572  
CABLE ADDRESS:  
"KNAPENG RANGOON"

*August 7th, 1953*

THE HONORABLE U WIN,  
Minister for National Planning and Religious Affairs,  
Prome Court, Prome Road,  
RANGOON, BURMA.

DEAR SIR,

The Consultants take pleasure in transmitting to you the accompanying "Comprehensive Report on the Economic and Engineering Development of Burma."

It is the earnest hope of all who have contributed to the preparation of the Report that it will be a trustworthy guide to social and industrial progress that will endure and strengthen through the years to come.

The Consultants desire to express their thanks and appreciation for the honor and opportunity afforded them to participate in the bold, creative, and historical measures being set in motion by the Union of Burma to secure for her people the full enjoyment of their rich resources.

Respectfully yours,



*General Manager*



## FOREWORD

### AUTHORITY

This Comprehensive Report is being submitted to the Government of the Union of Burma as the concluding service in the fulfillment of the contract dated August 8, 1951, and terminating on August 8, 1953, between the Government of the Union of Burma and Knappen Tippetts Abbett Engineering Company of New York City. As provided in the contract, the Knappen Tippetts Abbett Engineering Company has associated itself with Pierce Management, Inc., of Scranton, Pennsylvania, Coal and Metal Mining Engineers, and Robert R. Nathan Associates, Inc., Washington, D.C., Economists. The dollar costs under this contract are being paid by the Technical Cooperation Administration of the United States.

Article I, Section C, subsection 1c of the contract provides that "at the conclusion of the term of this contract, the Consulting Engineer will present a written report recommending a comprehensive, integrated program for the over-all development of the resources of Burma and governmental and private measures in addition to those which may already have been taken, designed to place such program into operation . . ." The recommendations shall be made "in the light of the desire of the Government to improve the productivity, production, and standard of living of the people of Burma as rapidly as possible and to achieve a diversified and balanced economy appropriate to the national and economic independence of Burma." This Report is now presented in fulfillment of that requirement.

### SCOPE

The responsibilities of Knappen Tippetts Abbett Engineering Company and its associates under the contract fall into six categories:

1. Surveys and Reports
  - a. Preliminary Survey and Report.
  - b. Project Surveys and Reports.
  - c. Comprehensive Report.
2. Preparation of Applications for Financing.
3. Services Relative to Specific Projects.
4. Continuous Engineering, Consulting, and Economic Advisory Services.
5. Purchasing Services.
6. Training of Burmese technicians.

Under category 1a, Knappen Tippetts Abbett Engineering Company, following a preliminary survey of the resources and the national economy

of Burma, submitted a written Preliminary Report on January 31, 1952. Subsequently, a large number of detailed reports on specific projects have been submitted. Many services have been rendered relative to specific projects; continuous engineering, consulting, and economic advisory services have been rendered and on occasion purchasing services have been performed. A number of Burmese technicians have assisted in the work, and have received training in various engineering and economic fields and in office procedures. No preparation of applications for financing has been requested.

In the foreword to the Preliminary Report it was observed that "because of the shortage of time and insufficient primary information, it has not been possible to achieve the degree of precision or balance in the proposed program which it is hoped will characterize the Final Report . . . Likewise these limitations have prevented the establishment of a final order of priorities for projects and final judgements concerning policies." This Comprehensive Report recommends a balanced program of public and private investment for the entire economy, together with measures to train the necessary skilled, professional, technical and managerial workers, indicates the feasibility of the program, recommends priorities and indicates the measures necessary to carry it out.

### ORGANIZATION

The following principals have visited Burma to initiate and supervise the survey, furnish consulting and advisory services during its course and assist in the preparation of the Preliminary and Comprehensive Reports:

Ernest F. Tippetts, Partner, Knappen Tippetts Abbett Engineering Company.  
Robert W. Abbett, Partner, Knappen Tippetts Abbett Engineering Company.  
Gerald T. McCarthy, Partner, Knappen Tippetts Abbett Engineering Company.  
James H. Pierce, Chairman, Pierce Management, Inc.  
John S. Marshall, President, Pierce Management, Inc.  
Robert R. Nathan, President, Robert R. Nathan Associates, Inc.

The General Manager of the survey is Homer B. Pettit, and the Deputy General Manager and Chief Engineer is John B. Alexander.

The following have served in Burma as Consultants:

Economic Geologist: Stuart St. Clair.  
 Economist: Louis J. Walinsky.  
 Editorial: Donald P. Barnes.  
 Hydroelectric Engineer: Frank P. Fifer.  
 Industrial Engineers: Donald F. Othmer,  
 Lawrence E. Peterson.  
 Mining Engineer: Evan Bennett.  
 Transportation Engineer, Ports and Waterways:  
 Francis B. Wilby.  
 Transportation Engineer, Railways, Highways,  
 Airways, and Communications: Ewart G.  
 Plank.

The following have been members of the field staff:

Frank D. Ahern, Construction Engineer.  
 Carleton W. Bacon, Communications Engineer.  
 Thomas H. Baker, Highway Engineer.  
 B. A. Blanchard, Management Administrator.  
 Charles MacA. Carman, Industrial Engineer.  
 J. B. Chadwell, Office Manager.  
 Donald E. Cupp, Industrial Engineer.  
 E. W. Englebright, Railway Engineer.  
 Everett E. Hagen, Industrial Economist.  
 Sam Hancock, Mining Engineer.  
 Pitt W. Hyde, Mining Engineer.  
 Joseph A. Jordan, General Civil Engineer.  
 Kenneth A. Lambert, Mining Engineer.  
 Irving H. Licht, National Income Economist.  
 Homer E. Montgomery, Office Manager.  
 Howard S. Nelson, Agronomist.  
 Jack W. Ninneman, Aerial Survey Engineer.  
 Henry R. Norman, Ports and Waterways  
 Engineer.  
 Arnold A. Olsen, Chief Driller.  
 Philip A. Parry, Industrial Engineer.  
 C. M. F. Peters, Mining Engineer.  
 Ernest J. Petersen, Chief Draftsman.  
 Arthur R. Reitter, Irrigation Engineer.  
 Benjamin P. Robinson, General Civil Engineer.  
 Alfred A. Strauss, Industrial Engineer.  
 Shigeharu Takahashi, Agricultural Economist.  
 William W. Tamplin, Economic Geologist.  
 George M. Tapley, Hydroelectric Engineer.  
 Eugene P. Tubman, Construction Engineer.  
 Peter N. Vukasin, Economic Analyst.  
 Paul A. White, Industrial Engineer.  
 Donald Wilhelm, Jr., Industrial Economist.  
 Kenneth B. Wolfskill, Highway Engineer.  
 George O. Zalkind, Ports and Waterways  
 Engineer.

The following members of the home office staffs  
 have devoted a large part of their time to the survey  
 during the period of the contract:

Volney A. Poulson, Project Engineer.  
 A. J. Creshkoff, Project Economist.

## ACKNOWLEDGEMENTS

Heartfelt appreciation is expressed to the Hon.  
 U Nu, Prime Minister of the Government of the  
 Union of Burma, whose effective consecration to pro-  
 moting the welfare of Burma has been an inspiration  
 to the survey group and whose steady support of the  
 aims of the survey has facilitated the work throughout  
 the contract period. Gratitude is expressed also  
 to all of the Ministers of the Government, whose  
 unfailing courtesy and cooperation has opened the  
 resources of their agencies to the survey staff members  
 and greatly increased the effectiveness of their work.

All of the Ministries and other agencies of the  
 Government of the Union of Burma from whom  
 information and other help has been sought have  
 been extremely cooperative, as have the personnel  
 of the Special Technical and Economic Mission  
 of the United States Technical Cooperation Adminis-  
 tration in Rangoon, the personnel of the various  
 missions of the United Nations and its affiliated  
 organizations, and a large number of other indi-  
 viduals and firms. Because of the many sources  
 from which aid has been received, the absence from  
 Burma as this Report is being prepared of some  
 persons who earlier served as members of the field  
 staff, and human error, it has been necessary to  
 omit from acknowledgement the names of some  
 from whom important aid was received. To all  
 of these as well as to the individuals hereinafter  
 listed are extended the deepest appreciation of the  
 associated firms and their staffs.

### OFFICE OF THE PRIME MINISTER

U Win Pe, Secretary.

### Economic and Social Board

U Hla Maung, Executive Secretary.  
 U Ba Sein, Joint Secretary.  
 U Kyaw Sein, Statistician.

### MINISTRY OF NATIONAL PLANNING

U Tin Pe, Secretary.  
 J. S. Furnivall, Planning Adviser.  
 U Maung Maung Kyaw, Executive Officer,  
 Burmese Economic Aid Committee.  
 U Kyaw Khaing, Census Commissioner.  
 R. C. Barber, Officer on Special Duty.  
 Lt.-Col. Ba Han, Officer on Special Duty.

### Central Statistical and Economics Department

U Tha Tun Oo, Deputy Director.  
 U Thet Tun, Assistant Director (Economics).  
 U Nyunt We, Assistant Director (Economics).  
 Daw San Shin, Assistant Director (Statistics).  
 And the entire staff of the department.

**Economic Planning Commission**

U Tun Tin, Secretary.

**Social Planning Commission**

U Aung Min, Chairman.

U Ba Kin, Secretary.

U Ko Ko, Member.

**MINISTRY OF AGRICULTURE AND FORESTS**

U Chit Pe, Secretary.

**Agriculture Department**

U Khin, Director.

U Ba Tin (2), Deputy Director of Agriculture.

U Ba Thein, Economic Botanist.

U Ohn Tin, Engineer.

**Agricultural and Water Resources Development Corporation**

U Hpu, Chief Executive Officer.

**Directorate of State Credit**

U Hla Maung, Director.

**Agricultural Department: District Agricultural Officers**

Mandalay: U Khin, Senior D.D.A.  
U San Pe, Asst. Econ. Botanist.  
U Aung Khin, S.A.A.

Magwe: U Ba Wan, D.D.A.  
U Thant, A.D.A.  
U Khin Maung Tint, S.A.A.

Meiktila: U Shwe Tha Htwe, D.D.A.  
U Ba Thein, A.D.A.  
U Po Htoo, A.D.A.  
U Kyaw Sein, S.A.A.

Toungoo: U Maung Gale, A.D.A.

Pyinmana: U Shein Maung, Dy. D.A.  
U Aung Khin, A.D.A.  
U Soe, S.A.A.  
U Hla Shein, S.A.A.

Myaungma: U Hla Baw, A.D.A.  
U Aye Thwin, S.A.A.

Bassein: U Thein Maung, D.D.A.  
U Sein, A.D.A.  
U Aung Min, A.D.A.  
U Khing Maung (5), S.A.A.

**Forest Department**

Mr. C. Kyaw Khine, Conservator of Forests.

U San, Conservator of Forests, Working Plans Circle.

Mr. Taw Kyi Saing, Conservator of Forests, Sittang Circle.

U Thein, Conservator of Forests, Chindwin and Northern Circles.

U Aung Baw, Conservator of Forests, Hlaing and Utilization Circle.

U Tun Ngwe, Conservator of Forests, Research and Training Circle, Ahlone.

U Thein Han, Acting Conservator of Forests, Working Plans Circle.

Mr. C. Kwet Kaw, Conservator of Forests, Timber Research and Agency Division, Ahlone.

U Aung Tin, Divisional Forest Officer, Delta Division.

U Saw Ohn Yin, Superintendent of Wood Working Shop.

Mr. Thomas, Construction-in-charge, Saw Mill No. 3, Kemmendine.

**Irrigation Department**

Mr. L. J. McLean, Chief Engineer.

U Bi, Superintendent Engineer.

Mr. A. C. Munro, Personal Assistant to Chief Engineer.

U Maung Maung Lay, Works Officer.

**Fisheries Bureau**

U Ba Kyaw, Fisheries Officer.

U Aung Myint, Secretary, Fishing Cooperation.

**State Timber Board**

U Hman, Chairman.

Mr. Tan Chein Hoe, General Manager.

U Tin Gyi, Director of Marketing and Milling.

U Aung Baw, Director of Extraction.

U Tun Gyaw, Zone Manager.

U Tha Htay, Manager, Saw Mill No. 2.

U Shein Toe, Acting Manager, Ahlone.

U Soe Maung, Chief Accounts Officer.

U Aung Tun, Statistical Officer.

**MINISTRY OF COMMERCE**

U Ba San, Secretary.

U Than Nwe, Assistant Secretary.

**State Agricultural Marketing Board**

U Thet Su, Chairman.

U Kyin Sein, General Manager.

U Maung Maung, Chief Movement Officer.

U Chit Tin, Executive Officer (Movement).

U Tin Chaing, Executive Officer (Direct Handling).

Mark Yain Kee, Chief Accounts Officer.

U Thet Zin, Executive Officer, Akyab.

U.E. Thein, Executive Officer, Bassein.

U.E. Cho, Executive Officer, Moulmein.

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Mr. W. J. Goddard, Joint Registrar.

U San Nyunt, Assistant Registrar, Moulmein.

**Civil Supplies Management Board**

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U Ba Thi, Textiles Marketing.

U Than Sein, Chief Accounts Officer.

U Sein, Senior Accounts Officer.

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C. P. Michael, Assistant Secretary.

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U Ba Hli, Dean, College of Engineering.

Murray D. Harwood, Visiting Professor,  
Sanitary Engineering.

Daniel D. Streeter, Jr., Visiting Professor,  
Mechanical Engineering.

U Tun Thin, Professor of Economics.

Mr. Saw William Paw, Head of Commerce.

U Ko Lay, Principal, Mandalay University.

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U Kyaw Nyun, Secretary.

B. K. Bose, Additional Secretary.

U Kyaw, Assistant Secretary.

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U Aung Soe, Financial Commissioner.

U Thi, Secretary to Financial Commissioner.

**Income Tax Department**

U Lu Gale, Commissioner of Income Tax.

U Ko Ko Lay, Income Tax Officer.

**Customs House**

U Ba San, Collector of Customs.

U Nyunt, Assistant Collector of Customs.

Mr. Morris, Customs Officer, Mergui.

U San Lwin, Auditor General.

U Ba Khin, Accountant General.

**Union Bank of Burma**

U San Lin, General Manager.

U Tin Tun, Deputy General Manager.

Dr. Clay Anderson, Adviser.

U Khin Maung Gyi, Deputy Controller.

U Maung Maung Hla, Economist.

Daw Tin Yi, Economist.

**MINISTRY OF HOME AFFAIRS**

U Khin Maung Pyu, Chief Secretary.

**MINISTRY OF HOUSING AND LABOR**

K. F. Ho, Secretary.

U Sein, Chief Inspector of Factories.

U Khint Maung, Director of Labor.

J. C. Koop, Statistical Officer.

U Tha Din, Labor Officer, Moulmein.

U Kyaw Sein, Director of National Housing  
Board.

U Tun Sein, Assistant Executive Officer.

**MINISTRY OF INDUSTRIES**

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E. R. Grey, Assistant Secretary.

**Directorate of Industries**

U Saw Tun, Deputy Director.

Dr. Kyaw Htin, Industries Officer.

Saw Rally Bain, Assistant Superintendent,  
Cottage Industries.

U Chit Hlaing, Supervisor, Weaving Loans,  
Moulmein.

**Government Cotton Spinning and Weaving Factory**

U Kyaw Sein, General Manager.

C. C. Holmes, Former General Manager.

Charles N. Smith, Assistant Manager.

Clayton A. Cook, Superintendent.

U Ba Kin, Head Accountant.

U Khin Maung, Technical Adviser.

S. K. Burman, Ibcon Consultant.

A. D. Patraval, Ibcon Consultant.

**Electricity Supply Board**

U Tun Ohn, Chief Administrative Officer.

U Aye, Hydroelectric Survey Engineer.

U Kyi Khin, Assistant Hydroelectric Engineer.

**MINISTRY OF INFORMATION**

U Thant, Secretary.

U Maung Maung Than, Deputy Secretary.

U Saw Aung, Acting Deputy Superintendent,  
Govt. Printing and Stationery Office.

U Sa, Manager, Govt. Book Stores.

**MINISTRY OF LAND NATIONALIZATION**

U Ba Htay, Secretary.

U Ohn Shwe, Deputy Secretary.

**Burma Survey Department**

U Hla Khin Maung, Director.

**Office of the Commissioner of Settlement and Land Records**

U Ba Htin, Acting Assistant Commissioner.  
U Thaw, Superintendent, Land Records, Moulmein.

**Land Nationalization Department**

U. E. Maung, Chief Executive Officer.  
U Ohn Pe, Executive Officer.  
U We Lin, Executive Officer.  
U Thant, Executive Officer.  
U Tun Tin, Executive Officer.  
Thakin Tun Tin, Executive Officer.  
Mr. A. Barrow, Administrator of State Colonies.

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Rapheal Peter Thaung, Secretary.  
U Kyaw Myint, Assistant Secretary.  
U Kyaw Pe, Executive Engineer, Loikaw.

**MINISTRY OF MINES**

U Kyaw Thein, Secretary (also Director-General, Mineral Resources Development Corporation)  
Mr. E. Harrison, Assistant Secretary.  
Dr. A. N. Ghosh, Director, GUB Metallurgical Research.  
U Pu, Mining Adviser.  
Dr. Ba Thi, Acting Director, Geological Department.  
U Min Din, Geologist.  
Kon Hock Chaw, Mining Engineer.  
Dr. Kyaw Myint, Geologist.  
U Ba Maung, Statistical Officer.

**MINISTRY OF PUBLIC WORKS AND REHABILITATION**

U Saw Lwin, Secretary.  
U Hone Wah, Assistant Secretary.

**Buildings and Roads Department**

U Ba Maung Chain, Chief Engineer.  
U Tha Dok, Acting Chief Engineer (March-June, 1953).  
U Kyi Mun, Personal Assistant to Chief Engineer.

**Executive and District Engineers**

U Thet Tun, Mandalay.  
U Ko Ko, Meiktila.  
U Shwe Chan, Monywa.  
Lin Gyin Kho, Pegu.  
G. N. Naidu, Prome.  
J. H. Martin, Shwebo.  
Mr. Gian Chand, Tharrawassy.  
Mr. P. H. McLean, Kyaukme.

**Superintending Engineers**

U Aung Tun, Mandalay.  
U Maung Maung, Pegu.  
U Hla Maung, Prome.  
U Kyaw Nyunt, Sagaing.  
U On Nyun, Tenasserim.  
U Tha Tin, Electrical and Mechanical Code.  
U Maung Gale, Maritime Circle.

**Rehabilitation Centre, Aung San Village**

U Win Maung, Director of Training.

**MINISTRY OF RELIEF AND RESETTLEMENT**

U Ba Win, Secretary.  
U Khin Maung, Assistant Secretary.

**MINISTRY OF SHAN STATE**

U Kin Maung, Secretary.  
U Nyun, Principal Works Offices.  
Sao Khun Mong, Superintending Mechanical and Electrical Engineer.  
U Thaung Pe, Resident, Shan States, Toungyi.  
Sao Tun E, Ex-Resident, Shan States, Toungyi.  
Mr. Anthony, Secretary to Resident, Shan States, Toungyi.  
Sao Sai Long, Sawbwa, Ktung.  
U Tun Pe, Executive Engineer, Loilem, Shan State.  
U Po Ngwe, Executive Engineer, Western Shan State.  
Saw Htun Yin, Executive Engineer, Loilem District.  
Saw Mya Thi, Executive Engineer, Taunggyi District.  
Saw Tun Pe, Executive Engineer, Eastern Shan State.

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G. S. Dillon, Secretary.  
U Ba Sein, Deputy Secretary.  
Dr. S. Suvi.  
Dr. Ahad.  
U Chit Thoung.

**MINISTRY OF TRANSPORT AND COMMUNICATIONS**

U Shwe Mra, Secretary.  
D. T. W. Bartlett, Deputy Secretary.

**Road Transport Department**

U San Ni, Chief Executive Officer.  
U San U, Superintendent of Motor Vehicles.

**Union of Burma Railways Board**

E. Barnard, Chairman.  
U Tun Thwin, General Manager.



**Union of Burma Railways Board—contd.**

U Sett Kaing, Secretary to General Manager.  
 U Kyi Win, Chief Engineer.  
 U Yone Mo, Chief Engineer (Mechanical).  
 U Aye Maung I, Traffic Manager.  
 U Han Tin, Controller of Railway Accounts.  
 Saw McCarthy Gyaw, Statistical Officer.  
 U Shwe Thane, Deputy Chief Engineer (Permanent Way).  
 U Hla, Deputy Chief Mechanical Engineer (Locomotive).  
 G. E. C. Peters, Deputy Traffic Manager (Transportation).  
 U Thein Nyun, Deputy Controller of Railways Accounts.  
 Mr. Daniels, District Mechanical Engineer.  
 Mr. Johnson, Locomotive Inspector.

**Inland Water Transport Board**

U Tsau Un Gyi, Chief Accounts Officer.  
 Captain Kyaw Din, Traffic Superintendent.

**Union of Burma Shipping Board**

U Ba Chan, General Manager.

**Commissioners of Port of Rangoon**

U Kyaw Tha, Chairman.  
 U Aung Saw, Deputy Secretary.  
 Mr. Dass, Chief Accountant.  
 B. B. Crabbe, Chief Engineer.  
 R. I. Warwick, Deputy Engineer.  
 U Khin Maung Gyi, Executive Engineer.  
 Mr. W. H. M. Todd, Traffic Manager.  
 H. C. H. Berry, Master Attendant.  
 J. H. Kirkham, Harbor Master.  
 R. B. Alphonsi, Mechanical Chief Engineer.  
 S. W. Spencer, Port Officer, Akyab.  
 Mr. Dunlop, Port Officer, Bassein.  
 Mr. D. S. Harding Raines, Port Officer, Moulmein.

**Mercantile Marine Department**

J. C. Needham, Nautical Adviser and Principal Officer.  
 Mr. C. W. Hancock, Nautical Surveyor.  
 Mr. W. W. Mortimer, Nautical Surveyor.

**TELECOMMUNICATIONS**

U Ba Choe, Director.  
 Mr. J. F. Evans, Deputy Director.  
 Mr. G. B. Forbes-Mitchell, Divisional Engineer, Wireless.  
 U Maung Maung, Divisional Engineer, Telecommunications, South Burma.  
 W. A. Raymond, Divisional Engineer, Rangoon Telephones.  
 U Kyaw Win, Divisional Engineer, Wireless.

H. N. Laval, Personal Assistant, Traffic.  
 U Myoe Thaw, Personal Assistant, Engineer.  
 U Soe Thin, Assistant Engineer, Electrical.  
 U Myint Aung, Assistant Engineer, Marine Station.  
 U Tha Hla, Assistant Engineer, Transmitting Station.  
 D. S. McMahon, Assistant Engineer, Receiving Station.  
 U Sein Ban, Superintendent, Telecommunications Stores.  
 H. Mainuddin, Superintendent, Central Telegraph Office.  
 A Aung Tah, Sub-Divisional Officer, Prome.  
 U Yoe Maung, Sub-Divisional Officer, Rangoon.  
 U Tun Zan, Attached Officer, Wireless.  
 U Nyint We, Assistant Superintendent, Instrument Room.  
 U Kyaw Wan, Office Superintendent.

**Union of Burma Airways**

U San Thein, Chairman.  
 U Taw, General Manager.  
 O. W. Ah Hee, Chief Accountant.

**Department of Civil Aviation**

U Kyaw Tha, Director.  
 U Kyaw Tun, Assistant Director.

**CIVIL ADMINISTRATION**

U Soe Tint, Commissioner, Arakan Division.  
 H. Keeley, Former Commissioner, Arakan Division.  
 W. J. Carrott, Commissioner, Sagaing Division.  
 U Mo Myint, Commissioner, Tenasserim Division.  
 U Kyaw Zan, Deputy Commissioner, Akyab.  
 U Thaung Lwin, Deputy Commissioner, Moulmein.  
 U Maung Maung, Deputy Commissioner, Pegu.  
 U Thaung, Deputy Commissioner, Tharrawaddy, Warden of the Oilfields.  
 Dr. Tun Aung, Civil Surgeon, Moulmein.

**AMERICAN EMBASSY**

Mr. W. J. Sebald, Ambassador.  
 Mr. R. A. Acly, Counsellor.  
 Mr. A. B. Franklin, 2nd Secretary.  
 Mr. W. S. Anderson, Jr., Economic Counsellor.  
 Mr. J. H. Boulware, Agriculture Attaché.  
 Mr. J. R. Ward, Labor Attaché.  
 Mr. A. E. Bergeson, 3rd Secretary.  
 Mr. James Boyce, Burma American Institute.  
 Mrs. Zelma Graham, U.S.I.S.  
 Miss Caroline Knapp, U.S.I.S.

## UNITED NATIONS TECHNICAL ASSISTANCE MISSIONS

**Office of the UN Technical Assistance Board**

- Mr. F. R. Scott, former Resident Representative.  
 Mr. A. J. Wakefield, Resident Representative.  
 Mr. J. P. B. Ross, former Acting Resident Representative.  
 Mr. F. S. Smith, Assistant to Resident Representative.

**Technical Assistance Administration**

- Mr. Y. L. Wong, Senior Technical Adviser to the GUB on Cottage Industries.  
 Mr. A. S. Windett, Statistical Adviser to the GUB.  
 Mr. M. D. Lieberman, Census Adviser to the GUB.  
 Mr. George T. Jackson, Expert on Public Administration, Adviser to the GUB.  
 Mr. A. C. Marriott, Expert on Civil Supplies.

**Social Services Mission to Burma**

- Dr. J. F. Bulsara, Head of Mission.

**International Labor Office**

- Mr. P. V. K. Ayyar, Head of Mission, Co-operative Expert.  
 Mr. C. R. Crews, Cooperative Expert.  
 Mr. Sheldon Ross, Manpower Survey Expert.  
 Mr. J. I. Saks, Labor Expert.

**United Nations International Children's Emergency Fund**

- Mr. John Barnabas, Chief of Mission.

**Food and Agriculture Organization**

- Dr. I. W. Kelton, Head of Mission.

## UNITED STATES TECHNICAL COOPERATION ADMINISTRATION

- Mr. Abbot Low Moffat, Former Director ECA.  
 Dr. F. N. Trager, Former Director.  
 Dr. R. B. Finch, Acting Director.  
 Dr. T. E. Posey, Economic Adviser.  
 Mr. G. F. Winfield, Program Officer.  
 Mr. R. K. Eyster, Executive Officer.  
 Mr. W. J. Green, Agricultural Officer.  
 Mr. Isom Deshotels, Acting Agricultural Officer.  
 Dr. W. W. Burr, Agricultural Research Adviser.  
 Dr. E. V. Staker, Agricultural Chemist.  
 Dr. J. M. Deal, Entomologist.  
 Mr. R. R. Covell, Land Capability Specialist.  
 Mr. G. L. Reed, Housing Consultant.  
 Mr. R. E. Paulson, Industry Officer.  
 Mr. Mark Cornell, Information Officer.  
 Dr. George Crowl, Geologist.

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 Dr. M. H. Paten, Acting Secretary, Bharat Chamber of Commerce.  
 Mr. Raman, Assistant Secretary, Burma Chamber of Commerce.  
 Mr. W. T. Williams, Assistant Secretary, Burma Chamber of Commerce.  
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PART I

INTRODUCTION



