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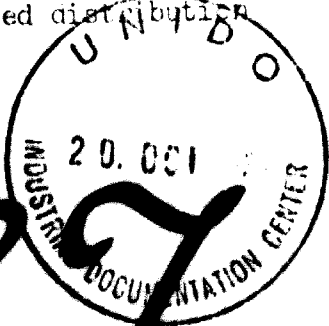
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ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL SERVICES
IN
PHILIPPINES

Technological Division
Industrial Institutions Section

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

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FOREWORD

The present report is one in a series of thirty-four country studies in Asia, Africa and Latin America, which attempt to identify those public and semi-public institutions important to the organization and administration of industrial development. This is not a study of the substantive aspects of the Philippine economy but rather a review of the institutional framework for industrial development.

The study was undertaken by the Centre for Industrial Development after the endorsement of this programme by the Committee for Industrial Development during its Fifth Session in May 1965.

To ensure some measure of uniformity in the country reports, the Centre for Industrial Development suggested a general outline for the use of the consultants responsible for the country reports. In accordance with these guidelines, the Philippines report follows a functional breakdown of the institutions involved in industrial development, namely: (a) objectives; (b) planning; (c) research and standardization; (d) promotion and development; (e) public industrial enterprises; (f) finance; (g) manpower and training; (h) extension services; and (i) legal and regulatory provisions.

This report has been prepared with the assistance of Dr. Lawrence W. Bass, who conducted the study in the Philippines in November 1965 as a consultant to the Centre for Industrial Development.

X. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL SERVICES IN THE PHILIPPINES

Background

1. The Philippines consists of an archipelago of 7,100 islands with a total land area of 30 million hectares and roughly 30 million people. The population density is about 100 persons per square kilometre, which is less than many other Asian countries. The population is growing rapidly at a rate of 3.3 percent per year. Literacy is about 72 percent. Unemployment is 6.5 percent. The breakdown of employment into major categories is as follows (33):

TABLE I

Employment by Industry, 1956 and 1962

	Number Employed (thousands)		Percentage Increase
	<u>1956</u>	<u>1962</u>	<u>1956 - 62</u>
Agriculture, Forestry, and Fishing	4,548	5,898	29.7
Mining	31	39	25.8
Construction	198	236	25.8
Manufacturing	962	1,052	9.4
Commerce	803	912	13.6
Transport, Storage, and Communication	245	316	29.0
Services, including Government	859	1,123	30.7
Not Reported	56	27	- 51.8
Total	7,702	9,603	24.7

2. Manufacturing is becoming more prominent as a source of national income. During the period 1956 to 1962 it increased at an annual rate of 8 percent, while Gross National Product rose by only 5 percent. Its share in national income grew from 14.5 percent in 1956 to over 18 percent in 1962 (33).

3. Total receipts from manufacturing operations are broken down into major industry classes in Table 2. Those that showed the largest increase in employment in the period 1956-62 are: electrical machinery 204 percent; metal products 101 percent; textiles 79 percent; and beverages 72 percent (33).

TABLE 2
Income from Manufacturing, 1960
(Values in Hundreds of Thousands of Pesos)

Foods and Beverages	10,947
Tobacco Products	1,899
Textiles and Footwear	3,815
Wood and Cork Products	1,693
Paper, Paper Products, Printing and Publishing	1,967
Leather and Rubber Products	1,275
Chemicals and Petroleum and Coal Products	5,831
Non-Metallic Minerals and Metal Products	3,598
Machinery	2,300
Miscellaneous	397
Total	33,722

I. POLICIES, AIMS, AND OBJECTIVES

4. The Macapagal Plan - "The Five-Year Integrated Socio-Economic Programme for the Philippines fiscal year 1963 to 1967," (43) as detailed in the published address by the President to Congress on 22 January 1962, projected an average yearly increase of 6 percent in domestic production, going from the rate of 5.5 percent in the period 1956-60 to 7 percent in 1967. By mid-1967 it should, therefore, have increased by 50.9 percent of its 1960 level.

5. The increase in national income in various sectors is forecast as follows, in millions of pesos at 1960 prices:

TABLE 3

	<u>National Income in millions of Pesos</u>					
	<u>1960</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
Agriculture	3,472	3,702	3,835	3,973	4,116	4,257
Industry	1,970	2,542	2,819	3,126	3,467	3,850
Construction	324	408	450	498	550	607
Basic Facilities, Trade, and Services	4,488	5,433	5,604	5,809	6,067	6,448
Total National Income	10,524	12,085	12,708	13,406	14,209	15,162

6. Attainment of these objectives will require, according to government estimates, the following gross fixed investment during the five-year plan, in millions of pesos at 1960 prices:

TABLE 4

Required Fixed Investment For Five-Year Plan

	<u>Millions of pesos</u>	<u>Percent</u>
Agriculture	809	6.71
Mining	399	3.31
Manufacturing	3,929	32.57
Construction, Including Public Works	2,429	20.15
Transportation and Communication	4,000	33.19
All Other Sectors	490	4.07
Total Gross Fixed Investment	12,053	100.00
Net Additions to Inventories	640	
Grand Total	12,693	

7. Investment in mining and manufacturing will need to rise in percentage of total fixed investments from 27 percent shown in 1956-59 to about 36 percent during the five-year period. (43) Increase in the basic industries - metals, chemicals, pulp and paper, integrated textile mills, etc. - are needed

to supply raw materials for expansion of light industries, replacing imports. Large investments are required in roads, power, irrigation, transportation, and communication, for which the government plans to put up directly, a total of 2,809 million pesos. With a favourable investment climate, the private sector should contribute a total of 9,244 million pesos in fixed investment plus 640 million pesos for inventory increase.

8. To provide the 12,693 million pesos of capital, gross domestic savings, including reinvested earnings of foreign enterprises, are expected to amount to 11,385 million pesos or 89 percent. The rate of gross domestic savings will have to increase gradually from 12.7 percent of gross income to about 16 percent in 1967. The plan looks to foreign investment to provide the remainder.

9. Imports of consumer and capital goods and various services called for amount to \$U.S. 4,271 million. Exports of commodities, chiefly raw materials, should reach \$U.S. 2,944 million during the five-year period. This programme is designed to create nearly 11,620 jobs, reducing unemployment to 5.5 percent. The pattern of employment is expected to change as shown in Table 5.

TABLE 5
Pattern of Projected Employment

	<u>Percentage of Employed Labour Force</u>	
	<u>1959</u>	<u>1967</u>
Agriculture	61.7	48.5
Manufacturing and Mining	12.0	20.2
Construction	3.1	3.0
Facilities, Trade and Services	23.2	28.3

10. Private consumption expenditures are expected to increase by 45.2 percent to an annual level in 1967 of 13,512 million 1960 pesos as compared with 9,304 million in 1960.

II. PLANNING OF INDUSTRIAL DEVELOPMENT

11. History (43). The Joint Preparatory Committee on Philippine Affairs in 1938 issued "Recommendations on Economic Adjustments During the Ten-Year Transition Period Prior to Political Independence." This was not a formal development plan but it recommended projects for improving technical training, transportation, conservation of natural resources, agricultural practices and institutions, manufacturing tariff schedules, public revenue systems, and health conditions.

12. Following the war, several plans were formulated for economic rehabilitation:

- (a) Joint Philippine American Commission, "Recommendations on Economic and Financial Adjustments for Economic Recovery";
- (b) Hibben Memorandum on a Five-Year Investment Plan, 1948-52;
- (c) Beyster Programme for Philippine Industrial Rehabilitation and Development;
- (d) Government Programme of Economic Rehabilitation and Development, 1949-53 (Cuadras Plan, 1948);
- (e) Philippine Agricultural and Industrial Development Programme, 1950-54 (YULO Plan).

13. By 1955, although the reconstruction had not been completed, it is considered that the country had entered the economic development planning period, and the following five plans have been framed successively:

- (a) Rodrigues Plan for 1955-59 involved a continuing planning and programming concept and was approved by the President in 1954 but was not implemented;
- (b) Puyat-Remualdez Plan for 1957-61 was based on a public investment schedule and a schedule of total capital formation;
- (c) Hoy Plan for 1957-61 was drafted by the legislative branch;
- (d) Locsin Plan for 1959/60 to 1961/62 was a later version of a three-year production programme appended to (b);

- (e) The Macapagal Plan, "Five-Year Integrated Socio-Economic Programme for the Philippines" 1963-67 (43) was adopted as the official programme. The target was for development in terms of broad orders of magnitude in private and public sectors. Rates of economic growth were projected at 5.5 percent between 1962 and 1963, and 7.0 percent between 1966 and 1967. The total investment target is 12,693 million pesos of which 3,929 million pesos, 32.6 percent, is directed to manufacturing.

III. MACHINERY FOR PLANNING, IMPLEMENTATION AND EVALUATION (1)

14. The National Economic Council, created in 1955, serves as the economic planning arm of the government. It is empowered by statute to formulate national economic policies and to prepare comprehensive economic and social development programmes. It has the organization shown in Chart 1. The plans, after approval by the President and/or Congress, are implemented by government executive departments, corporations, financial institutions, or by chartered cities and other local governments.
15. The National Economic Council is vested by law with the function of evaluation. It also has the duties of reviewing and making modifications of all existing economic development programmes at least once a year and of submitting periodic reports to the President and to Congress on the progress in economic planning and implementation, and on needs for legislation and changes in administrative policies, objectives, and practices.
16. In 1962 the incoming President created by executive order, the Programme Implementation Agency (50) which assumed and exercised not only the implementation function, but also those of planning and evaluation. Its organization is shown in the adjacent Chart 2. "As a clearing house where public and private projects can be technically and systematically co-ordinated, the PIA serves as a three-way forum. First, it translates the over-all production and investment targets set by the National Economic Council into complementary packages of projects geared toward achieving those goals. Second, it becomes a forum in which the different capital projects of the various government agencies can be integrated and co-ordinated. Third, it provides a clearing house where private investors can bring their investment projects to determine how these might be co-ordinated with public projects."

CHART 1

National Economic Council - Organization Chart
 (Original organization as of 1 July 1955)

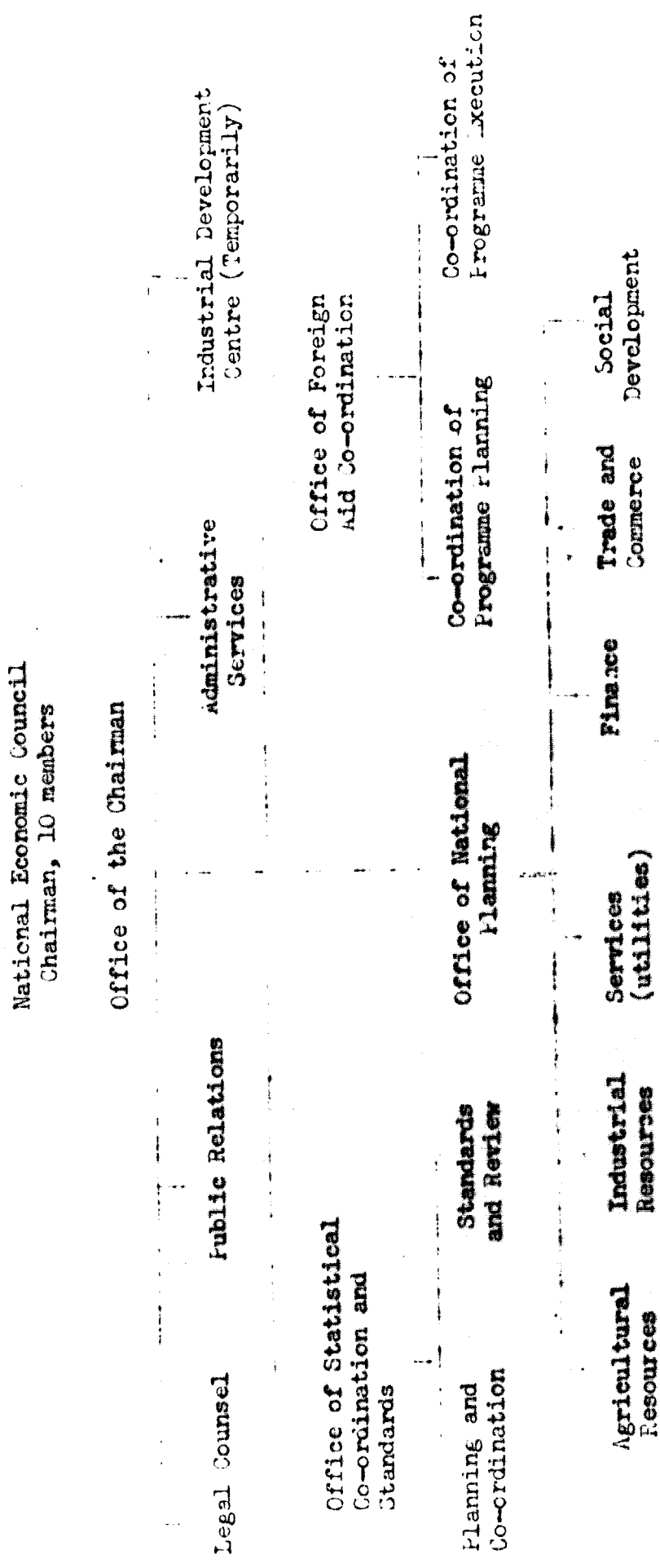


CHART 2

Programme Implementation Agency (50)
Organization Chart. December 1963

The President

Consultants ----- Director-General

Deputy

Director-Generals

Presidential Economic
Operations Centre

----- Administrative Services

Planning and
Research Offices

Project Development
and Evaluation Offices

Programming Offices

Planning and
Statistical Office

Industrial Project
Development and
Evaluation Office

Programming
Office for
General Fund

Legal and Policy
Research Office

Agricultural Project
Development and
Evaluation Office

Programming
Office for Capital
Transfers Fund

Management Services

Infrastructure Project
Development and
Evaluation Office

Programming
Office for
External Funds

Developmental Services
Project Development and
Evaluation Office

Manpower Project
Development and
Evaluation Office

IV. RESEARCH AND DEVELOPMENT, STATISTICS, TESTING AND STANDARDIZATION

17. The importance of science to the growth of the Philippine economy was recognized by Congress in 1954 by the creation of the Committee on Science and Technology in the House of Representatives and the Committee on Scientific Advancement in the Senate. In July 1958, the Science Act was passed and implemented; it created the National Science Development Board for over-all co-ordination, integration, and support of scientific and technological research activities of Government and in the private sector. This Act also created the Philippine Atomic Energy Commission, which led to installation in 1959 of a research reactor and auxiliary laboratories (1).

18. Data on research expenditures by the government for fiscal year 1959-60, as broken down by departments or agencies, are shown in Table 6. (34,35,37,38)

TABLE 6

Research Expenditures by the Government for 1959-60

	<u>Amount</u> <u>(1,000 pesos)</u>	<u>Percent</u>
Department of Agriculture and Natural Resources	6,175	51.2
Department of Education	125	1.0
Department of Health	124	1.0
Department of National Defence	294	2.4
Department of Public Works and Communications	454	3.8
Government Owned or Controlled Corporations, Including Government Banking Institutions	1,395	11.6
National Science Development Board	3,494	28.9
Others	4	0.1
Total	12,065	100.0

19. Of the total of 12,065 million pesos in fiscal year 1959-60, 10,633 million or 88.1 percent was spent for applied research and development, and only 11.9 percent on basic research. The applied research and development expense break-down by field of study is shown in Table 7 (34, 35, 37, 38):

TABLE 7

Classification of Applied Research Expenditure, 1959-60

	Amount (1,000 Pesos)	Percent
Agriculture and Related Fields	6,043	56.8
Economic Research	1,374	13.0
Industrial Research	1,451	13.6
Medical Research	1,237	11.6
Other, Including Military and Engineering Research	528	5.0
Total	10,633	100.0

20. The figures for personnel engaged in government research activities, broken down by agency, for fiscal year 1959-60 are shown in Table 8 (34,35,37, 38):

TABLE 8

Personnel Engaged in Government Research Activities in 1959-60

	<u>Scientists and Engineers</u>	<u>Supporting Staff</u>
Department of Agriculture and Natural Resources	604	731
Department of Education	11	29
Department of Health	8	18
Department of National Defence	11	24
Department of Public Works and Communications	70	101
Government-Owned or Controlled Corporations	65	157
National Science Development Board	203	359
Others	1	-

21. The following quotation (65, page 31) presents the views of the Chairman of the National Science Development Board as to the future requirements: (My considered opinion after assessing the carefully arrived at opinions of my advisers, is that sometime during the next 10 years the ceiling for scientific research in this country can be reached, and that ceiling would require a maximum of 80 million pesos of science development

funds annually, with 1,200 scientific research projects going on simultaneously as compared with the present 100. We have proposed to the President of the Philippines an initial 4-year program of science development with 50 million pesos annually for supporting 800 research projects simultaneously. We believe that with annual increments of 5 million pesos thereafter, the desirable quota of 1,200 scientific research projects would be reached and covered with the necessary funds 10 years from now."

22. National Science Development Board (NSDB) (11). This Board was created under the "Act to Integrate, Co-ordinate, and Intensify Scientific and Technological Research and Development and to Foster Invention; To Provide Funds Therefore; and For Other Purposes." It has an eleven member Governing Board, under a Chairman with cabinet rank, and acts as the policy-making body on scientific matters. The Board prepares the national programme for science and technology, which is submitted to the National Economic Council to become a part in the over-all development programme of the government.

23. In the post-war era scientific research has become more oriented toward applied research, whereas pre-war it had been in the nature of survey and fundamental studies. The more immediate needs of the country demand that industrial research and development should be given higher priority by government agencies. This policy is followed by the National Science Development Board and its implementing agencies. The undertaking and support of fundamental research are, therefore, being left to public and private universities and colleges and to the National Research Council of the Philippines, a semi-government organization which also serves the government in an advisory capacity.

24. NSDB adopted the following guidelines for priority areas of industrial research in the 1962-67 R and D programme:

- (a) Increased utilization of natural resources to replace imports;
- (b) Upgrading and expanding export products;
- (c) Utilizing waste products of agriculture and industry for consumer goods and export commodities;

- (d) Developing scientific and technological manpower, and promoting research in social sciences and science consciousness.

To carry out these priorities, distribution of government R and D funds was allocated in the following applied areas:

	<u>Percent</u>
Agriculture and Natural Resources	20
Industry and Engineering	20
Medical and Allied Sciences, Food and Nutrition	10
Social Sciences, Pure and Fundamental Research	5
Training of Scientific Manpower and Research Administrators	40
Promotion, Publication, Survey, Conferences, and Other Services	5

25. A comprehensive policy was established to create research consciousness in both private and public sectors. It included, in addition to more general objectives, such responsibilities as: to initiate and bring about establishment of standards, quality control measures, and documentation facilities; to accept specific project proposals from private and foreign sources; to grant scholarships; to grant additional compensation awards, bonuses, or prizes to deserving researchers and inventors; to extend travel grants and to promote technological meetings; to appoint science attachés abroad.

26. National Institute of Science and Technology (NIST) (11. 14. 16). This institute, under the supervision of NSDB, was reorganized in 1958 from the former Bureau of Science established in 1901. It undertakes industry-oriented research and development and offers consultative services to the government and private enterprises. It receives support from the government, its budget having averaged about 3 million pesos in recent years. It has a staff of roughly 450. In fiscal year 1963-64 it had a budget of 3,711,000 pesos, an increase of 20 percent over the preceding year.

27. NIST activities divide into the following major classifications: basic research 5 percent, applied research 70 percent, and development 25 percent. There are eight technical operating units, in addition to the administrative staff and Legal Division: (1) Agricultural Research Centre; (2) Biological Research Centre; (3) Food and Nutrition Research Centre; (4) Industrial Research Centre, comprised of the Chemical Research and Engineering Research Laboratories; (5) Medical Research Centre; (6) Tests and Standards Laboratories; (7) Scientific Instruments and Technical Services Division; (8) Science Documentation and Library Division.

28. Philippine Atomic Energy Commission (PAEC) (11,14). This Commission, created in 1958 by the Philippine Science Act, is supported by the government. Surveys, studies and research are carried out to promote and co-ordinate the use of atomic energy in agricultural, medical, and industrial problems. It renders technical advice to researchers, provides training opportunities and facilities, extends services for the repair of instruments, and helps in the importation of isotopes.

29. Other institutions engaged in research on applications of isotopes are: the University of the Philippines (UP), the Philippine General Hospital Radioisotope Laboratory, the UP College of Agriculture, the Bureau of Plant Industry, and NIST.

30. Abaca Development Board (14). This is a government agency centered on use of raw materials for handicraft manufactures.

31. Bureau of Animal Industry (14,20). This Bureau of the Department of Agriculture and Natural Resources maintains development laboratories for utilization and processing food products of animal origin.

32. Bureau of Mines (14). This Bureau of the Department of Agriculture and Natural Resources has a laboratory for assay of mineral products, geological surveys, and utilization of mineral ores.

33. Bureau of Plant Industries (14,21). This Bureau maintains a Laboratory Services Division. It has the following sections: Abaca Industrial Research Laboratory, Physical Properties, Chemical Properties, Plant Products Utilization, Food and Industrial Biology, and Industrial Chemistry and Chemical Engineering.

34. Fisheries Commission (14). This Bureau of the Department of Agriculture and Natural Resources conducts research on fisheries technology and utilization of marine products.
35. Forest Products Research Institute (14,60,61,62). This institute operating in conjunction with the UP College of Forestry, was created by law in 1959 to undertake research and development to improve techniques of wood processing and production, utilization of wastes, and development of new forest product industries.
36. National Cottage Industries Development Authority (14,31), under the Ministry of Commerce and Industry, is carrying out studies in various technical areas to assist small-scale manufacture on improvement and standardization.
37. National Development Company (14,40). This organization, in which the government is the major stockholder, includes a technical department which conducts industrial research in areas in which its investments lie or are projected.
38. Philippine Coconut Administration (14). This government agency was created in 1953 and operates under the Department of Agriculture and Natural Resources. Its research is on the improvement of the copra industry and utilization of coconut by-products.
39. Philippines Inventors Commission. This agency is in the process of organization.
40. Philippine Sugar Institute (14). This is a semi-public corporation organized in 1951. It is supported jointly by the government and sugar planters and millers. There is a five-member Board of Directors, of whom the majority represent the sugar planters. Research on the utilization of sugar cane by-products and wastes and on agricultural aspects are undertaken co-operatively with large sugar centrals.
41. Philippine Tobacco Administration (14). This agency, supported by government funds and taxes from tobacco planters, carries out studies on tobacco products, including by-products and wastes.

42. Textile Research Project. This programme is now being formulated.
43. University of the Philippines (UP) (14). This is the largest government supported university. It established an Office of Research Co-ordination in 1959, which implements Research and Development projects through its Natural Science Research Council and Social Science Research Council. Most of the industrial research projects are undertaken by the Colleges of Agriculture and Forestry, Pharmacy, Engineering, and Fisheries.
44. International Rice Research Institute (10). This is a privately endowed institute established four years ago by grants from the Ford Foundation and the Rockefeller Foundation. Its programme is concentrated on rice, chiefly on agricultural problems.
45. Research and Development by Private Manufacturing Industry (34, 35, 37, 38). The National Science Development Board in recent years has been making a survey of technical activities of private industry. The figures mentioned below were obtained for 1959 by questionnaires sent to 403 establishments, of whom 383 replied. Fifty-eight firms reported that they engaged in research and development activities, and 56 of them employed a total of 241 scientists and engineers for this purpose, with 303 supporting personnel. Total expenditures for research and development by 58 firms was 4.03 million pesos. Those segments of industry accounting for major amounts were: foods 39 percent, rubber products 18 percent, chemicals 17 percent, electrical equipment 9 percent, petroleum and coal 5 percent, and non-metallic mineral products 5 percent.
46. Standards. In addition to standardization activities being carried out by government agencies, the Standards Association of the Philippines, Inc. (19), was established in 1955 as a non-profit organization. It is composed largely of scientists, technologists, business executives, private businesses and industrial firms, and trade and industry associations. Its members pay subject fees to support the activities. It prepares and promotes adoption of standards, specifications, and codes, and acts as a national clearing house for standards.

47. Patents (41, 42). The Philippines Patent Office is under the Department of Commerce and Industry. It investigates applications and grants patents for 17 years on inventions and for 5 years on designs and utility models; the latter may be extended for two additional five-year periods.
48. Market Research. The Country Report for the 1965 ECAFE Conference on Industrialization (14) lists 58 market surveys and studies carried out under government auspices since 1955.
49. The Project Implementation Agency (44,45,46,47,51,52,53) has conducted and released numerous studies on various Philippine industries, such as pulp and paper, motor vehicle assembly, and household appliances.
50. The Department of Commerce and Industry has issued reports (22,23,24,27) on such areas as coconut, sugar, forest products, abaca, mineral products, and tobacco.
51. Market research projects are also being undertaken by private consultants.

V. INDUSTRIAL PROMOTION

52. The Department of Commerce and Industry (25,26) was created in 1947 "as a separate and independent executive agency to promote, develop, regulate, and control the conduct of Philippine commerce and industry." It now has twelve bureaus and offices and a total staff of 3,640 employees. Its senior officials are the Secretary, the Undersecretary of Commerce, and the Undersecretary of Industry. Its subdivisions are as follows: Bureau of Commerce, Sugar Quota Administration, Securities and Exchange Commission, Philippines Patent Office, Weather Bureau, Co-operatives Administration Office, Bureau of Census and Statistics, National Cottage Industries Development Authority, Rice and Corn Board, Bureau of Fiber Inspection Service, Civil Aeronautics Board, and Bureau of Standards.
53. The scope of activities of the Department is summarized as follows in its Eighteenth Anniversary Souvenir Brochure: Provides economic intelligence to boost foreign trade; encourages and co-ordinates foreign trade missions; participates in international conferences to promote foreign trade; sponsors special trips abroad to foster foreign trade relations; negotiates trade

agreements; participates in international trade fairs and expositions; undertakes commercial diplomacy; conducts local commercial and industrial conferences; re-examines economic legislation and trade laws; prepares and certifies economic bills; renders financing assistance to retailers; encourages development of basic industries through tax exemption privileges; promotes local products through regional trade fairs and expositions and permanent display centers; protects retail business against alien domination; preserves rights of inventors and manufacturers through patents; guides local investment into priority lines; disseminates trade information; conducts seminars and training programmes; and encourages formation of non-agricultural co-operatives.

54. National Cottage Industries Development Authority (31). This agency of the Department of Commerce and Industry was created by law in June 1962, and has a board of five members appointed by the President. It now has a staff of 750 regular employees, of whom about 300 are in the main office, including the laboratory. It operates ten regional institutes with a total of 450 employees, including 30-40 engineers.

55. Activities for fiscal year 1963-64 as summarized in the Second Annual Report, included the following: registering 9,065 cottage industries and awarding character loans totaling 500,000 pesos to 2,700 applicants; evaluating 26 categories of handicrafts and issuing specifications, and inspecting 45 other products; establishing many display centers around the country; launching a nationwide survey of cottage industries; conducting 302 training courses to train 33,267 cottage artisans; participating in international trade fairs to promote sale of cottage products; organizing, registering, servicing, endorsing, and giving financial assistance to 22 co-operatives; and organizing 10 regional institutes.

VI. MACHINERY FOR ADMINISTERING PUBLIC INDUSTRIAL ENTERPRISES

56. Government policy for encouraging industrial development during the period 1962-1966 is expressed in the following quotations from the Macapagal Plan (43): "We believe that economic development is principally a task of private enterprise and not of government. The government's role is to create a favourable environment that will provide the inducements necessary, in terms of policies and measures needed, to foster economic growth and stability...The first requirement for government is to ensure the judicious application of public investment programmes to the establishment of basic facilities such as roads and irrigation systems, transportation and communications networks, hydroelectric power, harbour facilities, and the development of land, forest and mineral resources...The second requirement for government is the establishment of a complement of policies designed to induce the maximum of internal domestic savings and the maximum of external financing in order to sustain the over-all investment requirements of the economic development programme."

57. Hence the main activities of the government have been to improve the infrastructure and to create a favourable investment climate. The steps taken to encourage the financing of industrial ventures are summarized in the following section. The operations of the National Development Company as a minority participant in equity to encourage desirable industries are also mentioned there.

VII. INDUSTRIAL FINANCING

58. Loans and Investment Council (30). In March 1963, this Council was created by the President under Executive Order No. 36 to co-ordinate investment policies of government financial institutions. It has a membership of eight, under the chairmanship of the Minister of Finance. Other members are the heads of the following agencies: Commerce and Industry, Programme Implementation Agency, Central Bank, Development Bank, Philippine National Bank, Government Service Insurance System, Social Security System.

59. Development Bank of the Philippines (DBP) (4, 5, 6, 7). It was created in 1958 "to provide credit facilities for the rehabilitation and development and expansion of agriculture and industry, the reconstruction of property damaged by war and the broadening and diversification of the national economy, and to promote the establishment of private development banks in the provinces and cities." Its predecessor was the Rehabilitation Finance Corporation opened in January 1947. In the combined operations of the two organizations over a period of 19 years, a total of about 2.5 billion pesos has been channeled into the economy.

60. DBP provides capital for the establishment and expansion of growth industries. It grants industrial loans, agricultural loans, real estate loans, disaster loans, loans to local governments for income producing or self-liquidating projects, and loans and subscriptions to capital stock of rural and private development banks. It also makes loans to small entrepreneurs in agriculture, commerce, and industry. It operates many branches in the provinces.

61. During the fiscal year ending 30 June 1965, DBP approved 11,883 loans, which along with other forms of financial assistance totaled 218.3 million pesos. Industrial loans and equity financing, with 1,242 loans, amounted to 107.5 million pesos. Loans and subscriptions to the capital stock of 130 rural banks accounted for 6.8 million pesos, and stock subscriptions, advances, and re-discounts to 67 private development banks totaled 13.7 million pesos.

62. National Development Company (15) was originally organized in 1919 to pioneer in essential industrial developments for which private capital was lacking. It was given wide powers "to engage in commercial, industrial, mining, agricultural and other ventures necessary or contributory to the economic development of the national and public interests; finance industrial plants and factories for the manufacture or processing of Philippine raw materials, or for the operation of public utilities necessary or incidental to the promotion of domestic and foreign trade; and organize subsidiary companies." It organized and/or financed many government corporations still

existing, such as Cebu Portland Cement, Rice and Corn Administration, National Power, People's Homesite and Housing, Insular Sugar Refining, National Resettlement and Rehabilitation Administration, and National Shipyards and Steel.

63. At the end of June 1965, its funds totaled 275.5 million pesos (up from 61 million pesos in assets 12 years ago). Its operations during 1965 yielded a net profit of 3.2 million pesos. Its paid-in capital is 29.4 million pesos, out of 50 million pesos authorized.

64. The preference of NDC is to acquire only minority interest in enterprises, 40 percent equity for example, so that Philippine capital, either alone or with foreign capital and know-how, may own the majority interest and would manage the enterprises. NDC representation on the Board would be proportionate. Any NDC investment would later be for sale to the original or other Philippine investors.

65. NDC has made most of its investments in textile mills, shipping, mining, etc. It has a list of new projects under consideration.

66. National Cottage Industries Development Authority (31). This agency in its second year of operation had distributed character loans of roughly 500,000 pesos among 2,657 individual cottage industries.

67. The National Investment and Development Corporation (NIDC) (Subsidiary of the Philippine National Bank) (17). When the National Bank was re-organized in 1955, it was granted special powers to extend long-term credit and equity financing to support projects contributing to economic development. In 1963, NIDC was established to permit the Bank to pursue these functions without jeopardizing the confidence of its depositors. Its funds come from the National Bank and borrowings from domestic and foreign sources. With authorized capital of 100 million pesos, paid up capital of 26.07 million pesos, and borrowings from foreign banks of 58.5 million pesos, during its second year of operation it had assisted 58 projects with medium and long-term loans of 45.1 million pesos, equity financing of 21 million pesos, and guarantees of 120.5 million pesos. In general, its assistance is to medium and large-scale ventures, for which it is felt that a dearth exists for investment capital.

68. Programme Implementation Agency (54, 56, 59). This agency compiles data on financial aspects of various industries.

VIII. MANPOWER AND TECHNICAL TRAINING

69. Technical Training. The urgent need for educational development is analyzed in an article in the Philippine Economy Journal (9) by the Chief Educational Supervisor, Office of the Secretary of Education.

70. Data from the Bureau of Private Schools and the University of the Philippines reveal: according to G.Y. Zara, Vice-Chairman and Executive Director, National Science Development Board (63), that of roughly 200,000 graduates with the baccalaureate or first professional degree in the decade 1949-59, only 18,440 or 9.2 percent were in engineering, 8,360 or 4.2 percent in natural and biological science, and 29,220 or 14 percent in the field of health. The average numbers of graduates yearly were 1,800 in engineering, 836 in sciences, and 3,000 in health.

71. No statistics on the demand for technically trained personnel have been collected. Government plans for industrial development obviously will result in increasing needs for engineers and scientists, as will also the projected increases in health services for personnel trained in that field.

72. The National Science Development Board has primary responsibility for development of scientific and technological manpower (36, 39, 40). It is undertaking the following programmes: (a) awards, scholarships, and fellowships; (b) strengthening the educational system at all levels through technical and financial help to various projects; (c) incentives to outstanding researchers or inventors (being transferred to the new Philippine Inventors Commission); (d) preparing background for legislation improving employment conditions of technical and scientific personnel in government agencies; (e) upgrading personnel in NSDB; (f) assistance for delegates to international conferences.

73. A Science Talent Search, begun by NSDB in 1958, during the past year awarded 224 full scholars, 274 partial scholars, and 32 replacement scholars. Under the Graduate Training Programme, NSDB awarded in 1965, 56 local scholarships and 14 foreign scholarships. At the secondary level, in 1964, the government organized the Philippine Science High School.

74. NSDB has also collaborated with public and private agencies to improve science teaching at all levels. Projects include training institutes, curriculum studies projects, and improvisation of scientific apparatus.

75. NSDB negotiates, on a government level, grants for training and observation from the Colombo Plan, NRC-AID, UNICLF, UNESCO, IAEA, and WHO.

76. Management Training. The Programme Implementation Agency of the government conducts seminars and training courses for the private sector (13,64). Applicants are limited to officials, senior employees, businessmen, and professionals. The seminars during July-September 1965, included the following topics: government policies regarding the setting up of business projects; status of Philippine industries; preparation of feasibility studies; appraisal of business projects; local sources of financing; foreign sources of financing; foreign sources of plant machinery; foreign sources of technical services; and foreign trade potentials. A total of 417 participants from the private and public sectors have attended the 11 seminars which have been held in various parts of the country since 1963.

77. "The Economic Development Foundation was established 1 August 1964, as a private, non-stock, non-profit, non-political service organization dedicated to the development of private economic enterprises in the Philippines." (8) It was set up to take the place of the government agency called the Industrial Development Centre, dissolved in February 1964, in the field of project identification, promotion, and development. The organization in April 1965, had a staff of 67, including officers, of whom nearly two-thirds were professionals. A five-man team of Americans was in residence as consultants. The business community contributed a capital fund of 345,000 pesos, and at the end of 1964 the National Economic Council and US AID released a 3 million peso loan to capital, the earnings to provide supplementary income. In addition to techno-economic feasibility and project evaluation studies, EDF provides training courses and seminars in management techniques and supervisory control, in such subjects as project management, industrial engineering, financial management, and machine shop management.

78. The Philippine Chamber of Industries Incorporated, (18) which was founded in 1950, during the last year sponsored an industrial mission to Europe, holds seminars and an annual convention of manufacturers and producers, and has recently sent a staff member to Japan for a training course on assistance to smaller enterprises.

IX. INDUSTRIAL ADVISORY AND EXTENSION SERVICES

79. Very small industries are being served by the National Cottage Industries Development Authority (31). The services, which are carried to the local level through branch operations, include assistance on product design and standardization, techniques, marketing, and finance.

80. While there are various types of assistance from public agencies available to medium and large industrial enterprises, there is no organized programme to carry out technical and managerial services on a broad scale. This need is recognized in the government and steps to fill the gap are being considered.

X. LEGAL AND REGULATORY MATTERS (43)

81. Tax Exemption. Over the last two decades there have been numerous acts passed to grant some degree of tax exemption and other benefits to encourage industrial development.

82. Marginal and Sub-marginal Industries. Various provisions have been enacted regarding exports of marginal products on a commodity-to-commodity trade basis.

83. Control of Capital. The "Securities Act" regulates the sale of securities.

84. Imports of Capital Goods. Restrictions have been removed on the sale of foreign exchange through authorized agent banks.

85. Location of Industrial Enterprises. Municipal boards and city councils have authority to adopt zoning regulations.

86. Licensing of Factories. All trade-named businesses must register with the Bureau of Commerce and renew registration every five years.

87. Control of Raw Materials. In general, exports are not restricted. Imports are exempted by the Central Bank from special time deposits.

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