

Book Reviews

Foreign Aid: Theory and Practice in Southern Asia. Charles Wolf, Jr. Princeton University Press, Princeton, N.J., 1960. xix + 442 pp. \$7.50

This is an important book—and a controversial one. It attempts to devise more rational criteria for allocating aid between programs and among countries. It develops new concepts designed to evolve proximate, quantitative expressions for political characteristics. If it were judged by its success in achieving this all but unattainable aim, the book would be rated lower than if one appreciates its pioneering quality. A reviewer who is on record as favoring attempts to introduce more quantitative concepts into the border lands of social science ["Quality into Quantity?," in *The Comparative Study of Economic Growth and Structure* (National Bureau of Economic Research, New York, 1959)], no matter how tentative the result, cannot fail to applaud the tantalizing effort Wolf has undertaken and pay homage to his boldness, ingenuity, and dogged determination.

Inevitably, this volume will be compared with another recent work on foreign aid, George Liska's *The New Statecraft* (University of Chicago Press, Chicago, 1960). No two books on the same subject could be more dissimilar. The political scientist, undeterred by the inherent indeterminacy of concepts, terms, and policy alternatives, uses a broad brush. Wolf, the economist, looks to the record for guidance to the assumptions that seem to be implied in past policy decisions on allocations. The historical and statistical detail contained in the first six chapters is an invaluable contribution in its own right; it will be appreciated by anyone who has been driven to distraction by the inconsistencies induced by changing objectives and by the perennial tug-of-war between the Administration and Congress. And the lavish documentation is

a prime guide to hopelessly scattered source material.

But for Wolf this is only the beginning. He wants to supplement the hit-and-miss method of allocating the total amount of available foreign aid. Even if one does not fully accept the confining view that "the problem of increasing the effectiveness of the Mutual Security Program is . . . synonymous with the problem of improving the allocation of aid funds" (page 412), it is certainly true that the method of allocation is an elusive one. And "it is indeed hard to avoid the mistakes or repeat the successes of past decisions if the grounds for having made them cannot be ascertained" (page 68). Hence, Wolf sets out to analyze the tortuous course of past aid allocations in South Asia, the region he knows so well from personal experience. He attempts to circumscribe the objectives of foreign aid, with a view to maximizing the political or military returns from given aid inputs. It is a trenchant analysis, logical almost to a fault, which dots more *i*'s than certain readers may care for; but those who follow the author closely will be rewarded by a clearer insight, along with many shrewd observations, even if they are not willing to accept every detail of Wolf's proprietary method of dissection.

It is indeed a subjective approach, perhaps more so than the author himself is able to perceive. But he remains scrupulously honest in his exposition and in discussing the limitations of the models to which his analysis leads him. He attempts to quantify the "productivity" of aid and its ability to achieve certain objectives, specifically to minimize the political vulnerability of the recipients or to maximize their collective military capability. What cannot be measured directly has to be approximated by something that can, and a disconcerting chain of further simplifications proved necessary in the single test provided. The author has few il-

lusions about the empirical usefulness of his models in guiding the policy maker toward better allocations. In fact, frustration awaits any reader who might be tempted to look for practical application. The unique value of the exercise is the insight that is gained by thinking harder and clearer than customary. As in all theory—and no general theory is attempted by the author—the real gain is proportional to the intellectual investment in rigorous analysis; this is not negligible even though, as Jacob Viner pointed out, "for policy . . . conclusions are vital, and often are all that is vital" [*The Long View and the Short*, (Free Press, Glencoe, Ill., 1958)]. In this sense, the last six chapters of the book do not deal with policy, but with the theory of policy, and in a highly original manner.

HENRY G. AUBREY
Council on Foreign Relations,
New York

Radiation. Use and control in industrial application. Charles Wesley Shilling. Grune and Stratton, New York, 1960. viii + 223 pp. Illus. \$6.75.

Atomic energy has brought a new factor into man's environment: nuclear radiation. Applications and uses of radioactive isotopes in industrial processes, in the development and operation of power plants, in the manufacture of radioactive preparations, and in instrumentation grow continuously. Paralleling this increase in the use of isotopes is an increase in the possibility of harmful exposure. Sooner or later all who are concerned with practical medicine have to give intelligent answers to questions, worries, and fears about the real and the imagined dangers that result from atomic radiations. Moreover, the industrial physician, obliged to follow modern technical developments in industrial methods with their imminent dangers for life and health, has to cope with and to help in possible radiation emergency cases.

The present monograph, Number 5 in the series "Modern Monographs in Industrial Medicine," gives the needed information about the real facts and dangers involved in work with isotopes. Five sections and an appendix are devoted to discussions of the physical and biological fundamentals of radia-

tion and radiation effects (including somatic and genetic effects), the prevention and treatment of radiation injury, the methods and means of controlling radiation, and an elaboration on the use of radioactive isotopes in research, medicine, and industry. The presentation is nontechnical, clear, and concise. A glossary and selected references assist and stimulate further studies.

The book reflects the author's great experience; this experience, based on many personal contacts, discussions, conferences, and private studies, enables him to provide information in a logical and perfect form for those who must acquaint themselves with the effects of ionizing radiations on man. It is an eminently practical book.

A. T. KREBS

*U.S. Army Medical Research
Laboratory, and Biology Department,
University of Louisville*

Indian Scientific and Technical Publications. Exhibition 1960, a bibliography. Compiled by the National Library, Calcutta. Council of Scientific and Industrial Research, New Delhi, India, 1960. xii + 393 pp. Rs. 25.

This bibliography, which originated in an exhibition of Indian publications held at the National Library in Calcutta, covers books and periodicals in all the major scientific and technical areas, including certain characteristically Indian subjects, such as ayurveda and yoga and the sago and vanaspati industries. As one would expect in a country at India's stage of economic development, the emphasis in the compilation is on topics in the applied sciences and, in terms of type of materials, on handbooks and textbooks at the intermediate and college level.

The total number of entries is 4800. In Part 1, about 2900 entries represent 13 Indic languages (for example, Hindi, 800; Marathi, 360; Bengali, 350; Tamil, 270; Urdu, 180; Sanskrit, 120). Approximately 10 percent of the entries are translations. Among the subject fields, medicine leads with about 800 publications, followed by agriculture, 400; engineering, 220; physics, 190; general science, 180; astronomy, 150; and so forth. In Part 2, 1900 English titles are distributed among agriculture, 500; engineering, 320; medicine, 190;

mathematics, chemical technology, and physics, about 100 each; the other fields of science and technology are represented by fewer than 100 titles each.

The bibliography is arranged according to the Dewey decimal system and has three voluminous indexes: an author-title index for each part and a combined subject index for both parts. A directory of the contributing Indian publishers rounds out the volume.

As the compilers themselves point out, the merits and shortcomings of this bibliography are inherent in the event that occasioned it. The fragmentary quality of the contributions submitted for the exhibition by the publishers of India is reflected in the compilation, despite attempts of the National Library to fill in the gaps (especially from its own Indic languages collection). The Library plans to correct this deficiency by publishing a supplement at an unspecified later date. A lesser fault is that the reader not familiar with the Indic languages is rather at a disadvantage in scanning Part 1, since no English translation or annotation of the transliterated (Hunterian system) titles is given.

Nevertheless, this is a major and up-to-date bibliography of scientific and technical monographs and serials issued in India. It is a useful adjunct to such bibliographic tools as the INSDOC and UNESCO bibliographies in this field and to the union list edited by Ranganathan. The great majority of the titles listed in this compilation have been published in the last decade; thus, readers are assured of timely and useful information on current developments in this area. The printing, the arrangement, the indexes, and the directory of Indian publishers attest to skill and care given to the preparation of this work.

T. W. MARTON

*Library, National Bureau of
Standards, Washington, D.C.*

Gifford Pinchot: Forester-Politician. M. Nelson McGeary, Princeton University Press, Princeton, N.J., 1960. xii + 520 pp. \$8.50.

To foresters the name of Gifford Pinchot means the man who, above all others, created the profession of forestry in the United States, the man who was instrumental in shaping the present

system of national forests, and the man who made the U.S. Forest Service a model agency. To the conservationist, it was Pinchot who worked hand in hand with Theodore Roosevelt during the glory days of the movement. Pennsylvanians will recall Pinchot as a vigorous, effective, and honest governor who served the commonwealth for 8 years during the '20's and '30's, when vigor, skill, and honesty were far from commonplace in state administration.

This biography reviews Gifford Pinchot's life as a whole for the first time. It is a pleasure to report that Nelson McGeary, chairman of the department of political science at Pennsylvania State University, has given us a full, perceptive, and judicious account, of the sort that Pinchot was wholly incapable of writing.

Pinchot considered himself as having had two separable careers. He described his early work in forestry in the autobiographical *Breaking New Ground*; this career ended in 1910, after President Taft resolved the Ballinger-Pinchot controversy by firing Pinchot as forester. McGeary originally began the present study as a political biography of Pinchot's later years.

"Don't try any sly or foxy politics," Pinchot lectured forestry students at Yale: "A forester is not a politician." Pinchot's own life belied the distinction, at least for any forester in a position to influence public policy. McGeary found it essential to broaden the compass of his biography. The result is an illuminating study in which the several interests and activities in Pinchot's career are effectively interwoven.

Pinchot won two terms as governor despite a lack of certain political skills. Notably, he had neither talent nor taste for compromise. Yet he was by no means an unsuccessful practitioner in government, and his greatest strength in politics stemmed from an unflagging devotion to what he conceived to be the "greatest good of the greatest number in the long run." This happy phrase describes what led him to choose forestry for his profession. As a statement of the underlying objective of national forest management, Pinchot's words have become a cornerstone of public resource policy in the United States.

Pinchot was a skillful and effective administrator, drawing to the Forest