1.1. General Works

General works devoted exclusively to Irian or to Irian as part of the island New Guinea are few in number. Although 30 years old, the best, even today, is Klein (1953-54). This work is a collection of 33 essays, counting some 1560 pages. They deal with all the various aspects of the island's natural and cultural history and the problems and prospects of its resources, and offer a valuable survey of the scientific knowledge and literature available at that time. The work replaced an earlier, equally valuable attempt by the same author at giving a comprehensive survey, which was sponsored by the Molukken-Instituut and appeared under a slightly different title (Klein 1935-38). The two works will be quoted as Klein's Nieuw-Guinea and Klein's Nieuw Guinee respectively, followed by the date of appearance of the relevant volume.

A simpler and more popular work is Vademecum (1956). Another important source of general information is the annual reports to the United Nations (Annual Reports 1949-61). These reports have been published in both Dutch and English. They contain a mass of precise administrative and statistical information on quite a variety of subjects. In addition, mention should be made of two popular works for general orientation, the first a picture book (Dutch and English text) compiled by Van Kampen (1961), the second by Kasberg (1956).

During the West Irian dispute the staff of the Indonesian armed forces, or Staf Penguasa Perang Tertinggi Republik Indonesia, published a source book of general information on soils, flora, fauna, agriculture, animal husbandry and forestry in West Irian (Apandi et al. 1962). A little later the University of Indonesia published a book with data on the geography, demography, prehistory, history, the ethnography of various ethnic groups, culture change and Messianic cults of the peoples of West Irian based on secondary sources (Koentjaraningrat and Harsja W. Bachtiar 1963).

Finally - and mostly for curiosity's sake - mention should be made of the fairly numerous Special Reports of the Allied Forces, S.W. Pacific area, Allied Geogr. Section. These documents were compiled from various earlier sources for the information and orientation of the advancing allied military forces on their campaign against the Japanese. After the war piles of these confidential reports were found in various parts of the one-time New Guinea war theatre. Most of them have disappeared in local archives and private collections. A number of these documents have been listed in Galis 1962:16ff. The most valuable parts of these documents are the maps contained in them. As the papers themselves are resumes of mainly second-hand information we will rarely refer to them.
1.2. Bibliographies, Serials and Periodicals

1.2.1. Bibliographies

A comprehensive bibliography of Irian, the arrangement of which, unfortunately, is purely alphabetical and not systematic, was compiled by Calis (1962). An English translation of an earlier, less extensive edition of the same work was published by Yale University, New Haven, in 1966 under the title Bibliography of West New Guinea (135 pp.). Bibliographical data on Irian are also found in An ethnographic bibliography of West Irian: A Bibliography (1936-37, the last in 1955-56. During the war (1942-46) the journal was published in an attractive form that it may be of some use to know that of the mimeographed issues of this private institution should not be confused with that of the government foundation, WOTRO, Stichting voor Wetenschappelijk Onderzoek van de Buitenlandse Handel van Ned. Nieuw-Guinea, (Hollandia: De Buitenlandse Handel van Ned. Nieuw-Guinea, (beginning in 1959, on the occasion of the Star Mountains Expedition, this firm decided to put out the new issues in a more modest format than the previous ones. They are all announced as continuations of volume X, new series, whatever the category to which they belong: Anthropology (2 issues comprising 3 articles), Botany (7 issues, containing 24 articles), or Zoology (9 issues, containing 38 articles).

The first journal devoted exclusively to Irian was Tijdschrift Nieuw Guinea (abbreviated as TNG), 's-Gravenhage: Stichting Studiekring voor Nieuw-Guinea, 1936. This was published in an attractive form that it may be of some use to know that of the mimeographed issues of this firm appeared first in 1936-37, the last in 1955-56. During the war (1942-46) the journal did not appear. In 1957 it was replaced by Nieuw-Guinea Studien ('s-Gravenhage: Stichting Studiekring voor Nieuw-Guinea, 1936-62). It also replaced a mimeographed three-monthly journal published in Irian, namely Het B.B.-blad, Hollandia: Dienst van Binnenlandse Zaken, Interne Voorlichting, 1955-53.

A periodical containing an extensive body of general information is Schakels/Schakels NNG. 's-Gravenhage: Rijksvoorlichtingsdienst, 1950-62. This is a series of government publications designed to give information on the Netherlands' overseas territories, i.e. Suriname, the Netherlands Antilles and Netherlands New Guinea. Initially Schakels appeared in the form of mimeographed pamphlets published by the Rijksvoorlichtingsdienst (Government Information Service) in cooperation with the Ministry of Overseas Territories. Some time after 1954 the Ministry took the responsibility for the publication of Schakels upon itself alone. From then on the various issues appeared in print and were well illustrated. The issues dealing with Netherlands New Guinea were marked Schakels NNG. Unfortunately, this marking was sometimes omitted, so that it may be of some use to know that of the mimeographed issues published by the Rijksvoorlichtingsdienst the following numbers deal with Netherlands New Guinea: 20-36, 38, 41, 42, 44, and 47-52 are devoted to Netherlands New Guinea: 55, 59, 62, 65, 67, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, and 95-97. Of those published by the Ministry of the Interior, numbers 20-36, 38, 41, 42, 44, and 47-52 are devoted to Netherlands New Guinea. It is without interest to know that the authors invited to publish in this information series were often specialists in their respective fields.

A popular, politically oriented magazine concerned with Irian was Nederlandse Maatschappij voor Wetenschappelijk Onderzoek in de Tropen. The name of this private institution should not be confused with that of the Treub Maatschappij since decolonization has become a fact. Later, the Treub Maatschappij agreed to make the serial available for the publication of the results of expeditions sponsored by other bodies, such as, primarily, the Koninklijk Aardrijkskundig Genootschap. Nova Guinea was published by Brill (Leiden), which firm in 1936 became the owner of Tijdschrift Nieuw Guinea ('s-Gravenhage: Vereeniging "Oost en West", 1934-71). In Irian this private institution should not be confused with that of the government foundation, WOTRO, which, this time, was not collected into volumes, though the issues published announce on the page facing the title page that they form part of the relevant volume of the new series. The same happened when in 1939, on the occasion of the Star Mountains Expedition, this firm decided to put out the new issues in a more modest format than the previous ones. They are all announced as continuations of volume X, new series, whatever the category to which they belong: Anthropology (2 issues comprising 3 articles), Botany (7 issues, containing 24 articles), or Zoology (9 issues, containing 38 articles). Among the serials and periodicals devoted to Irian the only one of a purely scientific nature is Nova Guinea. It was started for the purpose of publishing the results of the first expedition to New Guinea dispatched by the Maatschappij ter Bevordering van het Natuurkundig Onderzoek in de Nederlandsche Kolonien, also called the Treub Maatschappij. The official name of the Treub Maatschappij (in English: Society for the Advancement of Physical Research in the Netherlands' Colonies) has since been changed into Maatschappij voor Wetenschappelijk Onderzoek in de Buitenlandse Handel van Ned. Nieuw-Guinea, also called the Treub Maatschappij NNG. Unfortunately, this marking was sometimes omitted, so that it may be of some use to know that of the mimeographed issues published by the Rijksvoorlichtingsdienst the following numbers deal with Netherlands New Guinea: 55, 59, 62, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, and 95-97. Of those published by the Ministry of the Interior, numbers 20-36, 38, 41, 42, 44, and 47-52 are devoted to Netherlands New Guinea. It is without interest to know that the authors invited to publish in this information series were often specialists in their respective fields.
West Irian: A Bibliography


These official and semi-official serials were stopped at the transfer of administration of Irian to Indonesia. Since 1970 some new serials have appeared in Irian, the most important of which is Irian, Bulletin of Irian Jaya Development (abbreviated as IBJD, Jayapura: University of Cenderawasih (UNCEN since 1972), Institute of Anthropology).

Other serials are Asmat Papers (Jayapura: UNCEN, 2 vols., M.T. Walker (ed.), 1974), a publication of reports of field work by staff and volunteers made possible by the Rockefeller 3d Fund grant, and An Asmat Sketchbook (Jayapura: Diocese of Agats-Asmat, F. Trenkenschuh (ed.)). This is a compilation of missionary notes on various aspects and the history of Asmat culture and society as we as those of some of their neighbours, including notes on the history of missionary activities in the area. Between 1970 and 1977 six volumes have appeared (which also included contributions by non-missionaries). Note: It is not uncommon to find Asmat Sketchbook mentioned as being published in either Asmat or Jayapura, but the cover states that copies are available from Crosier Missions, Box 709, Hastings NE, 68901 USA.

Another periodical to be mentioned here is Majalah Universitas Cenderawasih (abbreviated as MUNCEN or MUC, Jayapura: UNCEN, from 1963).

1.3: Maps

For an introduction to the problems of map making in Irian, see: Kint, Scherpber and Van Asbeck (1954). On the subject of nautical conditions and maps the reader should consult the Zeemansgids (1951) and its updates. Some additional charts, for instance, of the seashore of the province of Irian (see the map on p. 6). The work had to be discontinued, and the task of filling in the relevant geographical names on the maps already completed had to be abandoned. This is a great pity, because the provisional maps published were of good quality. Deplorable, too, is the fact that a reprint of these maps (which had a very restricted circulation) was not made. A renewed systematic aerial survey followed. It resulted in a collection of coloured maps on a scale of 1:100,000, published by the Topografische Dienst at Delft (Netherlands) under the caption: Kaart van Nederlands Nieuw-Guinea op de schaal 1:100.000. Of the planned number of about 300 maps, some 200 had been completed when in 1962 the Dutch withdrew from Irian (see the map on p. 6). The work had to be discontinued, and the task of filling in the relevant geographical names on the maps already completed had to be abandoned. This is a great pity, because the provisional maps published were of good quality. Deplorable, too, is the fact that a reprint of these maps (which had a very restricted distribution) is now impossible.

For practical purposes the best maps now available are those published by the Topografische Dienst at Batavia in 1938 which is included in vol. III of Klein's Nieuw Guinee (1938). On this point cf. also Pannekoek (1937-38 and 1938-39).

An advantage of the older maps is that they mention a great many names of settlements or rivers. However, a number of these were rather haphazardly selected or were the result of misunderstandings caused by linguistic difficulties. We should not blame the makers too much on this point. Really blameworthy are the producers of later maps who copied the names on the maps of these military explorers without inquiring whether these villages still occupied the same spot (village migration is frequent in these parts) or whether the names used needed correction. Aerial observation and subsequent map-making has hardly ever been complemented by adjustment, on the basis of terrestrial observation, of the locations of settlements and other geographical features and the names under which they are currently known.

A case in point is that of the maps produced during the war by the USA Armed Forces and collected and distributed as Netherlands New Guinea Terrain Intelligence (1943). Based partly on aerial photography, partly on older maps and other information of all sorts, these maps were better in various respects than the old ones, but nonetheless far from ideal. Besides, they were not public property. Originally, they were marked as confidential, and though after the war no one seems to have taken this seriously, they became increasingly rare as most of these maps disappeared into private collections.

After the war, in 1953, the Dutch Government published a new map drawn by the Topografische Dienst at Delft on a scale of 1:1,000,000. It certainly had its merits (as every new map has), but still suffered from many of the shortcomings of its predecessors. A renewed systematic aerial survey followed. It resulted in a collection of coloured maps on a scale of 1:100,000, published by the Topografische Dienst at Delft (Netherlands) under the caption: Kaart van Nederlands Nieuw-Guinea op de schaal 1:100,000. Of the planned number of about 300 maps, some 200 had been completed when in 1962 the Dutch withdrew from Irian (see the map on p. 6). The work had to be discontinued, and the task of filling in the relevant geographical names on the maps already completed had to be abandoned. This is a great pity, because the provisional maps published were of good quality. Deplorable, too, is the fact that a reprint of these maps (which had a very restricted distribution) is now impossible.

For practical purposes the best maps now available are those published by the American Army Map Service, Washington D.C.: Corps of Engineers US Army; sheets SA 53, Blak; SB 53, Kaoanao; SA 54, Altape; SB 54, Ambunti; SC 54, Torres Strait.
### Bibliography

#### Annual Reports

1. **1949-61** Annual Report on Netherlands New Guinea for the year ... presented by the Netherlands Government to the Secretary General of the United Nations pursuant to art. 73(e) of the Charter, The Hague: Ministry of Overseas Territories [later the Ministries of the Interior and of Foreign Affairs successively].


#### Ethnographic bibliography

1. **1968** An ethnographic bibliography of New Guinea, 3 vols, Canberra: ANU, [for publications on Irian Jaya cf. Index].


12. **Netherlands New Guinea Terrain Intelligence**

13. **1943** Netherlands New Guinea Terrain Intelligence, Intelligence Branch Office, Chief of Engineers, Special Report, Strategic Engineering no. 93.

II

CLIMATE, GEOLOGY, AND SOILS

11.1. Climate*

For a general description of the Irian climate the reader is referred to Braak (1954). Since 1954 a considerable amount of more detailed information has been made available in the Publicaties en Mededelingen van het Meteorologisch en Geophysisch Bureau (Bureau for Meteorology and Geophysics) at Hollandia, the first of which appeared in 1957. They were continued until a few years (exact data are impossible to give) after the departure of the Dutch (1962).

Much general information can be found in the Bureau’s Publication no. 13 (Bureau for Meteorology 1962). The observations derive from 10 stations, namely: Hollandia (Haven), Hollandia (Sentani), Biak (Moker), Manokwari (Rendani), Mapia, Sorong (Jefman), Kaimana, Tanah-Merah, Merauke (Mopa) and Balim (Wamena), and give information on: monthly means of air pressure, air temperature, vapour pressure, relative humidity, wind speed, cloud amount, precipitation, duration of sunshine and number of days with thunder for 10 stations. Included are data for each year together with a five-yearly mean, and extreme values of the temperature and the number of days on which a specified amount of precipitation or a specified temperature was exceeded.

Other publications of the Bureau deal with precipitation and sunshine and global radiation respectively in more detail. These include on precipitation, Publications nos 2, 3, 5, 6, 7, 8-12, 17-19, Mededeling no. 1, and two maps (Bureau for Meteorology 1952-64, 1958, 1959b, 1959c, 1960a and 1960b), and on sunshine Publications nos 1 and 4 (Bureau for Meteorology 1957 and 1959a). After 1963 data concerning global radiation in Wamena (1959-61) and Sentani (1957-60) were published (Publications nos 15 and 16).

* By T.B. Ridder, staff member of the Royal Meteorological Institute at De Bilt, Netherlands, and formerly a staff member of the Bureau for Meteorology and Geophysics at Hollandia.