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STUDIES OF POTENTIAL EVAPORATION IN KENYA

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SUMMARY

Values for the Penman estimate of potential evaporation have been computed for several locations in Kenya. Mean monthly and mean annual evaporation rates are displayed on a series of maps and in tabular form. The accuracy, variability and mode of derivation of these evaporation totals are described in some detail.

In addition, the mean daily duration of bright sunshine has been evaluated and mapped for each month of the year. The accuracy of these latter data is also discussed.

The East African Specialist Committee on Applied Meteorology has frequently stressed the desirability of mapping potential evaporation and has strenuously advocated the purchase and installation of the various instrumentation which has made this study possible. The calculations represent the culmination of several years' effort within the Physics Division of the East African Agriculture and Forestry Research Organization.

C O N T E N T S

LIST OF MAPS

1. INTRODUCTION

Estimates of the rates of evaporation from open water surfaces have direct relevance to problems of economic importance for Kenya. Such evaporation data constitute an essential element in studies of crop water requirements; they are basic to catchment area research and management; and they have considerable bearing upon the feasibility of irrigation projects. Recognising the limitations of direct measurements involving evaporation pans, agriculturalists and hydrologists have tentatively agreed that the Penman estimate of potential evaporation (Penman 1948) should be regarded as the most suitable evaluation of open water evaporation for tropical East Africa. The present study was undertaken to evaluate and map, for Kenya, mean monthly and mean annual values of this Penman estimate of potential evaporation (Eo).

The Penman estimate is, in effect, an integration of meteorological parameters; it was found necessary to devote a considerable effort to the retrieval of meteorological records. This retrieval was not complete, and it is acknowledged and regretted that much valuable data could not be obtained for inclusion in the analysis. Very few of the meteorological observatories in Kenya are equipped to measure all the variables which are necessary for the computation of Eo; this report therefore includes a description of the derivation and application of the various techniques developed for the assessment of these unobserved parameters.

In East Africa, the viability of any project dependent upon a component of the water balance is, to some extent, influenced by the extreme values of that component. Reference is therefore made to recent studies of the temporal variability of potential evaporation rates in Kenya, Tanzania and Uganda. An extension of these variability analyses has permitted the calculation of the monthly and annual potential evaporation rates at the upper and lower 90 per cent confidence levels ($P = 0.2$). These 90 per cent confidence values are presented as "extreme values" likely to be exceeded, or fallen short of, one year in ten. For the recently-commissioned observatories, and for those less-well-equipped, estimates of variability have been inferred from adjacent, well-established stations.

Mean monthly and mean annual values of Eo, computed for each suitably-instrumented meteorological station, are presented on maps and in tables. The tabulation also includes the "extreme" evaporation rates and the basic meteorological data. This inclusion

of the basic data will ensure that, should a recalculation of evaporation rates become necessary or desirable - possibly as a consequence of the derivation of new evaporation formulae or because of an improvement in methods of assessing unobserved parameters - then the arduous process of data retrieval will not need to be repeated.

The calculation of monthly evaporation rates involved the determination of monthly values for the mean daily duration of bright sunshine, expressed as hours per day. These data, which are of some limited use to architects and agriculturalists, are tabulated and are also displayed on a series of maps. With slight modification these two series of maps, of potential evaporation and of sunshine duration, should constitute a useful contribution from Kenya to the World Climatic Atlas which is being prepared by the World Meteorological Organization.

This study is complementary to similar investigations undertaken for Uganda by Rijks and Owen (1965) and for Tanzania by Woodhead (1968). The analyses for Kenya and Tanzania were undertaken concurrently, and the similarity of presentation of the parallel reports will, it is hoped, facilitate reference and comparison.

2. PROCEDURE

(a) Preparation of the data

Tables for the rapid computation of the Penman estimate of evaporation have been prepared by McCulloch (1965). This programme yields daily potential evaporation rates expressed as millimetres of water evaporated per day; in consequence, a daily formulation of the basic meteorological data is necessary. For the purposes of the present survey, monthly mean values of these daily parameters were required so that the mean daily evaporation rates could be computed according to McCulloch's programme and the corresponding monthly evaporation totals derived from a multiplication by the number of days in the month.

For an accurate evaluation of Eo, it is necessary that records of the following observations be available:

(i) daily radiation, in units of calories/cm^2/day; measurements by Eppley or Kipp pyranometers are preferred; useful, but less accurate, radiation totals may be obtained from Gunn-Bellani distillometers;

(ii) duration of sunshine, recorded by a tropical model of the Campbell-Stokes instrument and formulated as the ratio of observed to maximal daily sunshine hours;

(iii) mean air temperature, in degrees Celsius, conveniently represented by the arithmetic mean of the daily maximum and minimum temperatures;

(iv) mean temperature of dew point, in degrees Celsius, approximately interpreted as the average of the measurements of temperature of dew point performed at 0900 hours and 1500 hours East African Standard Time (E.A.S.T.);

(v) mean run of wind, expressed in miles per day, as measured by a recording anemometer at an elevation of two metres above a short grass surface.

The major contribution to Eo is from that term representing incoming solar radiation, and it is of radiation measurements that there is the greatest deficiency, both in number and quality. Preliminary studies were therefore undertaken to establish techniques for the assessment of solar insolation from observations of sunshine duration and cloud amount. Computation of Eo was effected only for those meteorological stations at which reliable measurement or estimation of radiation was possible.

The gazetteer, Table I, lists the locations for which Eo has been calculated. The ordering of the entries is determined by the sequence of the reference numbers allocated on a "degree-square" basis by the East African Meteorological Department. The observatories are designated according as the data were obtained from the East African Meteorological Department (E.A.M.D.), the Water Development Department of the Ministry of Natural Resources of the Government of Kenya (W.D.D.) or direct from an agro-meteorological station (Agro-met.) The designation does not necessarily imply that these organisations were responsible for the supervision of a particular meteorological site. The latitude, longitude and altitude of each

observatory are displayed in the gazetteer; the latitude and altitude are necessary for the evaluation of Eo and the positional co-ordinates are required in the preparation of the maps.

Summaries of various climatological data have been prepared by the East African Meteorological Department. Insolation totals for selected East African stations are contained in the radiation tabulations distributed monthly by the World Meteorological Organzation. A list of data sources is included in the reference section of this report.

The mode of derivation of the dominant radiation term is also indicated in Table I. The expressions Eppley, Kipp and Gunn-Bellani Radiation Integrator (G.B.R.I.) denote direct measurement of solar insolation by these instruments; indirect estimates are specified by reference to the primary observation: sunshine or cloud amount. Sunshine records obtained from Jordan instruments have not been included in the analysis.

The Dalton or wind component of the evaporation formula requires a value for the daily wind run at two metres elevation. Reliable measurements by run-of-wind anemometers and by pitot-static recording equipments are signified by the entries "cup counter" and "anemograph". From a study of diurnal wind patterns, relationships have been deduced which permit approximate assessment of wind run from synoptic observations of wind velocity; such estimates are described as "Beaufort."

Air temperature and temperature of dew point were recorded at each meteorological station.

The periods of observation, which were not always continuous, are indicated in Table I. The installation of new equipment at a few meteorological sites has permitted independent evaluations of the radiation terms and also of the wind terms; the durations of these various complementary measurements are entered separately in the gazetteer.

Eighty stations are listed; their distribution, as indicated by the overprinting of station names upon the map of annual evaporation, Sheet 7, is neither so dense nor so uniform as one would wish; large areas of the Eastern, North Eastern and Rift Valley Provinces are devoid of suitable meteorological observatories. Appended to the gazetteer are the details of an additional seven sites

for which records of sunshine duration only were available; such data were utilised in the preparation of the maps of sunshine duration. Details of one Ugandan observatory are also appended; sunshine and evaporation estimates derived for this location were of assistance in the preparation of the corresponding maps for the bordering regions of north-western Kenya.

(b) Techniques of computation

A correlation between insolation and sunshine duration has been derived for East Africa (Woodhead, to be published). Records of the necessary observations were available for fifteen meteorological stations in Kenya, Tanzania and Uganda. A least-squares analysis of a combination of the data from all fifteen stations yielded the relation:

$$Q = Q_A\,(0.23 + 0.53\,(n/N)) \quad \ldots\ldots\ldots (1)$$

$$r^2 = 0.87, \text{ 1938 degrees of freedom,}$$

where Q and Q_A respectively represent the mean daily insolation received by horizontal surfaces at ground level and at the upper limit of the earth's atmosphere, (n/N) is the ratio of measured to maximal duration of sunshine and the data were grouped in ten-day periods. The values of Q_A are those computed by MacDonald (1965) and are based on a solar constant of 2.00 cal. cm^{-2}. min^{-1}.

Routine measurements of cloud amount are undertaken at most of the civil airfields in East Africa. The average of the monthly mean values for 0900 hours and 1500 hours E.A.S.T. was taken as a measure of the daily cloud amount in a particular month. A non-linear relationship between the monthly mean of daily sunshine duration and the corresponding estimate of total cloud amount was established from an analysis of the records for ten suitably-equipped airfield observatories in Kenya (Woodhead 1967). By the application of equation (1) to this cloud-sunshine relation, measurements of cloud amount could be translated into estimates of radiation. Tables relating cloud amount to sunshine duration and to insolation are included in the cited paper.

The estimates of potential evaporation at most of the gazetted locations were derived from radiation totals based on one or other of these relationships. The applicability and accuracy of these formulae are discussed in a following section.

The Casella cup counter anemometer Mark II, registering wind run to 0.01 miles, has been adopted as standard equipment for the agro-meteorological observatories supervised by agricultural

establishments and by The Water Development Department; the East African Meteorological Department has recently installed such anemometers at some synoptic stations. The starting torque of this robust instrument renders it unreliable for wind strengths less than 5 m.p.h. (Meteorological Office, London, 1956). Average annual wind speeds of 6.7, 4.0, 4.9, 3.0, 2.9, 5.6 and 3.6 m.p.h. have been recorded at Muguga, Dagoretti, Kimakia, Kericho, Marigat, Mombasa and Rumuruti respectively. It must be considered probable that, for those months during which lighter winds prevail, values for U, and consequently for Eo, are somewhat under-estimated. The sensitivity of the cup counter anemometer is further reduced because of the increase of frictional forces which occurs when these instruments cannot be adequately serviced.

For those synoptic meteorological stations not equipped with a cup counter anemometer, relationships have been derived which permit a rough assessment, on a monthly mean basis, of the twenty-four-hour wind run from discrete observations of wind velocity. From a study of the diurnal wind patterns recorded by anemographs installed at 10 metres elevation at four observatories in Kenya and Tanzania, the following values were deduced for the ratio, f, of the twenty-four-hour wind run (in miles per day at 2 metres elevation) to the average of the 0900 and 1500 hours E.A.S.T. wind speeds (in knots at 10 metres elevation):-

Dagoretti	:	18.1 ± 1.7
Kisumu	:	15.0 ± 2.6
Sanya	:	22.7 ± 3.9
Dodoma	:	23.5 ± 4.4.

The analysis was restricted to stations equipped with Dines anemographs; the Munro instruments were considered too insensitive at low wind speeds.

For three meteorological stations there are contemporaneous records of both twenty-four-hour wind run and synoptic wind speeeds (deduced from Beaufort observations referred to 10 metres elevation). The three estimates for the parameter, f, were determined as:-

Dagoretti	:	14.4 ± 2.0
Mombasa	:	14.7 ± 1.7
Garissa	:	15.6 ± 2.3.

From these latter data, a mean value for f was deduced:

$$f = 14.8 \pm 2.0 \ ;$$

this value was used in both the Kenya and Tanzania studies for assessing wind run from Beaufort-estimates of wind speed. It will be noted that in no case does the value for f as determined from the anemograph studies differ from this mean by more than 1.8 times the corresponding combined standard error.

For observatories making no wind observations whatsoever, estimates of wind run were derived from the records of adjacent, well-equipped stations. For cup counter anemometers installed at non-standard elevations, the correction formula of Hellman (quoted and tabulated in McCulloch, 1965) was used.

Having measured or assessed the necessary parameters according to the foregoing prescriptions, Eo was computed on a monthly basis for each location. The calculations were facilitated by the use of McCulloch's (1965) tables; in this formulation Penman's (1948) equation was modified to include the altitude dependence of the psychrometric terms as suggested by Ripley. For estimates of open water evaporation, the reflection coefficient of a water surface was assumed equal to 0.05. Insolation estimates were derived from sunshine records in terms of equation (1) and not the Glover-McCulloch (1958) relation. Following McCulloch (1965), the wind run, U, was incorporated into the Dalton term of the Penman equation in the form

$$(1 + U/100).$$

The values for mean air temperature and mean temperature of dew point were calculated to the nearest 0.1 centigrade degrees. The inaccuracies of the thermometers and of the observers and the errors introduced through the psychrometric equations would certainly exceed this figure. In the light of these considerations and recognising that measurements of radiation, the factor which dominates evaporation, are at best accurate to within 5 per cent, certain approximations were permitted for ease of computation.

Values for the "weighting factors" for efficiency of energy conversion and for the long-wave re-radiation term (parameters A, D, G and F of McCulloch's schedule) were obtained by entering the appropriate tables with mean air temperature and mean temperature of dew point approximated to the nearest whole centigrade degree and with station altitude restricted to multiples of 500 metres. The errors consequent upon the adoption of these labour-saving techniques would be not more than 3 per cent. Estimates for the parameter H, involving the saturation vapour pressure deficit, were obtained by interpolating mean

air temperature and mean temperature of dew point to the nearest 0.1 centigrade degrees; considerable errors can arise from less rigorous treatments. McCulloch's (1965) table for H was amplified for convenience of such interpolation. Mean daily evaporation rates were computed to the nearest 0.01 millimetres; monthly and annual potential evaporation totals are tabulated to the nearest millimetre.

For the better-equipped observatories, estimates of potential evaporation were computed, on a monthly basis, for each individual year. Eo was also evaluated, for the long-term stations, for a hypothetical "mean year" obtained by taking average values, over a several-year period, for each of the basic observables for each month of the year. The evaporation estimates deduced for this "mean year" were compared with the corresponding monthly and annual evaporation rates obtained by deriving average values from the results of the analyses performed for individual years. These two assessments of annual potential evaporation agreed to within 2 per cent for each of the considered locations; the seasonal patterns, as evinced by the monthly estimates, were also in close accord. These findings were construed as sufficient justification for the calculation of average evaporation data, for the less-well-equipped stations, from the long-term mean values of the various basic observables.

Potential evaporation rates for Muguga have been computed for several years on both a monthly and a ten-daily basis. Close agreement was found between the monthly evaporation totals derived from a processing of monthly mean values for the basic data and those obtained by summation of the three individual evaporation estimates calculated for the three conventional "ten-day" periods of the same month. It was therefore concluded that no distortion or lack of accuracy would result from analysing the data for all observatories on a monthly basis.

For each meteorological station, the step-by-step computation of Eo was summarised on a standard pro-format. All of the arithmetical operations were performed on electro-mechanical desk calculators. At every stage in the analysis, such as the tabulation of the basic data, the reference to the various tables or the working of the arithmetic, a double checking was imposed. It is hoped that this supervision will have discovered and rectified most calculational errors.

3. THE RESULTS AND THEIR INTERPRETATION

(a) The data : basic and derived

For each observatory, mean monthly values for the various observed parameters are summarised in the tables appended to this report. The legend is identical to that adopted for the gazetteer (Table I). Radiation totals, where available, are presented in units of langleys per day (1 langley = 1 calorie per cm^2). The entry C denotes the mean value for the ratio Q/Q_A, whether derived from sunshine or cloud observations (see section 2b, p.8); should radiation measurements be displayed, values for C are, of course, superfluous. Where, however, estimates of evaporation have been obtained for different periods by alternative methods, as pyrheliometers and distillometers superseded cloud observations for insolation assessment, then there may be found entries for both radiation and C. In such cases the values for C have been derived from either cloud or sunshine records and not from the direct measurements of insolation.

Four potential evaporation estimates are tabulated for each month; these are, respectively, the mean daily evaporation rate and the mean monthly evaporation total, and the lower and upper limits ascribable to the monthly evaporation totals at the 90 per cent ($P = 0.2$) confidence level. The derivation of these extreme values and of the specified "accuracies", for both the monthly and annual totals, will be described in subsequent sections of this report.

(b) Variability of the evaporation and sunshine estimates

Mean values and standard deviations for the daily duration of bright sunshine in each month have been published for several East African stations by the East African Meteorological Department (1962). For individual months, these standard deviations range between 0.5 and 1.3 hours with an average of about 0.8 hours. If it is assumed that the estimates of sunshine duration obtained in different years for a particular month are distributed normally, then at the level of 90 per cent confidence one year's records should determine, on average, the mean monthly duration of sunshine to within $\pm$ 1.0 hours; for the same level of confidence, four years' or ten years' data would reduce this uncertainty to 0.5 or 0.3 hours respectively.

The variability of the Penman evaporation estimates has been investigated for fourteen locations in East Africa (Woodhead, to be published). Of these fourteen observatories, six were in Kenya,

six in Tanzania and two in Uganda. Estimates for four of the Tanzanian stations were derived from records of sunshine duration; radiation data were available for the other ten sites. Evaporation totals had been computed for periods ranging between six and ten years.

For each station, the thirteen distributions of monthly and annual potential evaporation totals were tested for normality according to Fisher's (1954) method of moments. No significant departures from normality were detected, either in the monthly or in the annual data. The computed standard deviations and coefficients of variation were therefore considered suitable parameters for the prediction of the frequencies of occurrence of extreme evaporation rates.

Because potential evaporation estimates were available for relatively few years for any one location, the fractional standard errors of the standard deviations were large, typically 25 to 30 per cent. To a first approximation, the large-scale climatic factors, such as the position of the intertropical convergence zone, which determine the seasonal pattern of evaporation variability may be considered constant over Kenya as a whole in any particular month. With this assumption, a country-wide average value was derived for the coefficient of variation of evaporation for each month of the year. The trend of these average coefficients was considered to be an adequate portrayal of the seasonal progression of variability.

For each of the eight locations in Kenya and Uganda for which variability had been assessed, the average of the twelve monthly coefficients of variation was calculated. These average monthly values and the much smaller coefficients of variation for the annual potential evaporation totals were displayed on separate maps. From these crude mappings, estimates of the annual and average monthly coefficients of variation were inferred for each of the eighty-one observatories for which mean evaporation rates had been calculated.

The country-wide seasonal trend was then scaled to these average monthly coefficients, such that the average for a particular location remained equal to the value derived from the mapping, but the annual cycle conformed to the wider, more representative pattern. By this technique it was hoped to retain the influence of more local features, such as topography and altitude, while more accurately incorporating the climatic factors. The coefficients of variation for the annual evaporation totals required no such treatment.

Estimates for the standard deviations of the monthly and annual potential evaporation rates for each of the eighty-one sites were obtained by multiplying the mean Eo-values by the appropriate rationalised coefficient of variation. Deviations from the mean at the P = 0.2 (90 per cent) level, defined as 1.282 standard deviations for a normal distribution, were evaluated and then added to and subtracted from the mean to yield the entries tabulated as "Eo: 90% Upper" and "Eo: 90% Lower." These values respectively represent the monthly or annual potential evaporation totals likely to be exceeded or fallen short of one year out of ten; or alternatively, in four years out of five the potential evaporation rate would be expected to fall within these limits.

For several long-term stations in Kenya and Uganda the number of deviations actually experienced without the P = 0.2 levels was compared with the number predicted by the foregoing analysis. Values for chi-squared were found to be satisfactory for all locations, both for the monthly and for the annual predictions. For the eight stations: Dagoretti, Kedong, Kericho, Kimakia, Marigat, Muguga, South Kinangop and Atumatak, the number of deviations beyond the limits predicted from the smoothed, country-wide variability pattern were combined for each month of the year and for the annual distributions. Acceptable chi-squared estimates were deduced for each of the thirteen comparisons.

It is therefore believed that the tabulated extreme values adequately represent the variability of evaporation throughout Kenya. With the assumption of normality, potential evaporation estimates at different confidence levels may be easily computed from the quoted mean and limits by making reference to a table of the Gaussian curve. It should, perhaps, be emphasised that the tabulated extreme values are, like the mean evaporation estimates, subject to the instrumental and systematic errors which are discussed and evaluated in the following section of this report.

(c) Accuracy of the evaporation and sunshine estimates

Records of the duration of bright sunshine, obtained from Campbell-Stokes instruments, were available for thirty-seven stations in Kenya. Monthly values for the mean daily number of sunshine hours at these locations are contained in the data tabulations appended to this report. The systematic errors arising from maladjustment of the instruments or from erroneous measurements of the traces are not

likely to exceed 0.2 hours per day (Meteorological Office, London, 1956). The precision of the estimates for the mean daily duration of bright sunshine is therefore primarily determined by the variability factors outlined in the preceding section.

To facilitate preparation of the maps of sunshine duration from these few scattered measurements, additional data were derived from the cloud and radiation records. Equation (1) may be rewritten:

$$n = N\ (1.89(Q/Q_A) - 0.43);$$

estimates for n, sunshine duration, computed from this relation will therefore be subject to almost twice the fractional error ascribable to the radiation measurements, Q. The accuracy of the Gunn-Bellani distillometers and the validity of equation (1) are discussed later in this section; this discussion will show that estimates of n are liable to fractional errors of $\pm$ 16 per cent, or $\pm$ 1.0 hours, on average. Errors of a similar magnitude may be ascribed to values for sunshine duration deduced from cloud observations (Woodhead, 1967). In consequence, all values for n, whether derived from the data tabulations or from the maps, may be assumed accurate to $\pm$ 1.0 hours.

The validity or applicability of the Penman evaporation formula will not be discussed in this report. This integration of the basic meteorological parameters will be accepted as a means of comparing potential evaporation rates in different locations. This appraisal of errors has therefore been restricted to a determination of the accuracy with which the present computations do in fact effect this integration.

For tropical East Africa, the relative magnitudes of the three terms, I, II and III, of the Penman formula, which respectively incorporate the incoming shortwave radiation, the outgoing longwave radiation and the Dalton, or wind, term, are roughly in the ratio 4 : 1 : 1; the latter two factors, of opposite sign, tend to cancel each other. With the simplifying assumptions that these ratios hold rigorously throughout Kenya and that all meteorological observers are equally competent, the assessment of the precision with which the calculated values do in fact represent the true mean potential evaporation can be rationalised to a consideration of the type and period of operation of the instrumentation installed at a particular observatory.

The assumed inaccuracies of the basic meteorological observations are displayed in Table II. The extent to which these errors are reflected in the three terms, I, II and III, are also tabulated. The inaccuracies arising from the limitations of the air and dew point temperatures were computed for several of the temperature and humidity regimes encountered in Kenya, and average values are quoted. Following the recommendation of the World Meteorological Organization (1961), a $\pm$ 5 per cent inaccuracy was attributed to the pyrheliometric data; since the same pyrheliometers were employed as reference instruments, all of the other radiation estimates were subject to this 5 per cent uncertainty. The accuracy specified for the distillometers (G.B.R.I.) includes the systematic and random errors of calibration and an allowance for the systematic errors of operation.

To assess the validity of equation (1), individual correlations were derived for each of the fifteen observatories. From the differences between these computed coefficients, it was established that errors of up to $\pm$ 7 per cent could arise from the application of equation (1) throughout East Africa. Studies of the cloud-sunshine relationships for Kenya, Tanzania and Uganda (Woodhead 1967) and also for northern Zambia and northern Malawi (unpublished) suggested that systematic errors of $\pm$ 7 per cent should be ascribed to the sunshine estimates derived from records of cloud amount. Compounding these errors, by taking the square root of the sum of the squares of the individual fractional errors, with those attributed to the pyrheliometers and distillometers and with the $\pm$ 1 per cent rounding errors associated with the values for Q_A, there result the entries in Table II for the systematic inaccuracies in factor I appropriate to the various assessments of radiation. The errors in factor II arising from the alternative derivations of the parameter

$$(0.10 + 0.90\ n/N)$$

were similarly assessed.

An inaccuracy of $\pm$ 20 miles per day was ascribed to the cup counter anemometer data as a result of an investigation into the long-term deterioration of these instruments under tropical conditions. The accuracies with which the anemograph and "Beaufort" observations determine the run-of-wind are represented by the standard deviations of the respective correlations. These rather large errors do not, fortunately, appear directly in the factor III but are reduced by the incorporation of the wind run in the form $(1 + U/100)$.

The foregoing errors, which are all systematic or instrumental, were combined according to the following prescription to yield a value for the systematic error of each Eo-estimate. Under each of the headings, I, II or III, of Table II, entries were extracted appropriate to the observatory's instrumentation. These errors were then combined by taking the square root of their summed squares. The resultant fractional errors for factors II and III were then divided by four to take cognizance of the relative magnitudes of the three terms of the Penman formula. Finally, by compounding these rationalised fractional errors according to the summed squares procedure a value was obtained for the systematic fractional error of Eo.

The precision with which the computed values accord to the true, long-term mean potential evaporation is influenced by the year-to-year variability of both the empirical relationships and the Eo-estimates themselves. Of the former, a variability sufficient to augment the systematic errors occurs only within the cloud-sunshine correspondence. It has been established that values of sunshine duration derived from monthly records of cloud amount are distributed with an average coefficient of variation of about 15 per cent (Woodhead 1967). The quantities:

$$15/(m)^{\frac{1}{2}} \quad \text{and} \quad 15/(12\ m)^{\frac{1}{2}},$$

where m represents the number of years of data, were therefore added, by the summed squares technique, to the systematic errors respectively deduced for those monthly and annual evaporation rates computed from cloud data.

The assignment of annual and average monthly coefficients of variation for the Eo-estimates was described in the previous section. For each observatory, the annual and monthly coefficients of variation were divided by the square root of the number of years of data. These divided coefficients were then added, by the same summed squares procedure, to the fractional systematic errors which included, where appropriate, allowance for the variability of the cloud-sunshine relationships.

The accuracies so evaluated for the monthly and annual evaporation rates are displayed, in percentage form, in the data tabulations. No reference has been made in this section to the possible occurrence of mistakes either in the calculations or in the basic meteorological data, published or unpublished. It is conceivable that such faults are present in the tabulations, but it is believed that their influence, particularly upon the mappings, is slight.

4. PREPARATION OF THE MAPS

Mappings of the mean daily duration of bright sunshine for each month of the year are presented as Sheets 1, 2 and 3. As many of the data were approximate, no attempt was made to reduce them to an ideal horizon. Isohels were drawn for 5, 6, 7, 8, 9 and 10 hours per day. The delineation of these isolines was hampered by the scarcity of observatories and by the inaccuracies of many of the available estimates.

A loose, inverse correspondence between sunshine duration and precipitation was observed; an indication that each of these parameters is influenced by the patterns of cloud cover. A series of maps of mean monthly and mean annual rainfall for East Africa is at present being prepared by Miss J.E. Tomsett of the East African Meteorological Department. The disposition of these isohyets was much relied upon in the drafting of the corresponding isohels. The opportunity to study these rainfall data prior to publication was much appreciated and is gratefully acknowledged.

The mean monthly and mean annual Penman Eo-estimates are displayed on Sheets 4, 5, 6 and 7. Evaporation totals for the monthly maps are based on the actual number of days per month, 28.25, 30 or 31 as appropriate, and have not been referred to any hypothetical, standardised month-length. Isolines are shown at 125, 150, 175, 200 and 225 millimetres for the monthly data and at 1400, 1600, 1800, 2000, 2200, 2400 and 2600 millimetres on the map of annual evaporation. These intervals, of 25 millimetres and 200 millimetres, are approximately equal to one inch and eight inches respectively.

Wherever annual evaporation totals had been evaluated from differing basic observables, either at closely adjacent observatories or for different periods at the same observatory, excellent consistency was noted. Agreement between the corresponding monthly estimates was not so good. Each of the stations for which Eo had been computed was therefore assigned to one of the thirteen geographical regions into which the country was arbitrarily divided. The monthly Eo-estimates derived for every station within each such region were then superimposed to effect one graphical representation of the annual trend of evaporation within that area. Departures from this pattern at specific locations for particular months could be recognised in these displays. It was thus possible to categorise, on the draft mappings, each potential evaporation rate according to its mean value, its accuracy of determination and its conformity to the appropriate seasonal pattern.

The altitude dependence of the annual evaporation estimates was established from the weighted regression:

$$Eo = 2422 - 0.358\ h \quad \ldots\ldots\ldots\ldots\ldots \quad (2)$$

$$r^2 = 0.66,\ n = 78$$

with Eo in millimetres per annum and h, the altitude above mean sea level, in metres. To utilise this dependence, the evaporation estimates and their appraisements were transcribed onto altitude-tinted base maps. Lines of equal evaporation were then drawn, in accordance with the displayed data, on these base maps; extrapolation of the isolines into areas devoid of any meteorological observatory was guided by the altitude contours. The precipitation mappings were also of some help in this exercise, but the rainfall-evaporation correlation was not so strong as that between precipitation and sunshine.

The sunshine and evaporation estimates derived for locations in Tanzania and Uganda were also indicated on the draft mappings. These data were of considerable assistance in the delineation of the isolines for the respective border areas. The published isolines do not, however, continue beyond the territorial boundaries of Kenya.

Copies of the photographs of cloud distributions taken by the Tiros III satellite during its traversals of Eastern Africa and the Indian Ocean were kindly supplied by the National Aeronautics and Space Administration of the Government of the United States of America. The inability to distinguish between cloud types and the difficulties of relating the cloud positions to the underlying terrain unfortunately precluded the extraction of any useful climatic information from these pictures.

The map of annual evaporation was drafted at a scale of 1 : 1,000,000 and the monthly maps of evaporation and sunshine duration at 1 : 3,000,000; these were respectively reduced to 1 : 3,000,000 and 1 : 6,000,000 for publication. Mercator projections were adopted in all cases. The map of annual potential evaporation, Sheet 7, is superimposed upon a base map recently prepared by the Survey of Kenya. Observatory names, in bold type, are overprinted on Sheet 7 only. The distribution of these meteorological stations will serve to emphasise that the positions of many of the isolines must be considered tentative. In the case of the monthly maps, Sheets 1 to 6, the base detail includes only the names of principal towns and the outlines of major rivers and lakes. In accordance with the recommendation of the World Meteorological Organization (1960), the progression of layer colours was chosen in spectral sequence; higher values for potential evaporation and sunshine duration are in red or orange and lower values in green or blue.

5. CONCLUSIONS

Mean annual totals of potential evaporation of 1250 millimetres and 3120 millimetres were computed for South Kinangop and Habaswein respectively. Estimates for all other locations were found to lie between these values. The mean annual rainfall at South Kinangop is 1400 millimetres and at Habaswein 220 millimetres. The inverse correspondence between evaporation and precipitation is strikingly demonstrated.

The mean monthly evaporation rates ranged between 85 and 260 millimetres, approximately. In general, the months of highest potential evaporation, or evaporative demand, were also the months of least precipitation. Very few monthly estimates fell below 100 millimetres. With the exception of the mountain peaks, areas depicted as experiencing less than 125 millimetres evaporation per month may therefore be considered to have monthly Eo-values of between 100 and 125 millimetres.

Evaporation pans, fifteen inches or ten inches in depth, have been installed at some meteorological observatories. Comparisons between pan evaporation and potential evaporation, made on a monthly basis, were inconclusive. The pan estimates were greatly in excess of the Penman values for locations, such as Lodwar and Mandera, where conditions of high advection might be expected to prevail.

Many of the radiation totals, and their corresponding potential evaporation rates, were derived from empirical relationships which were assumed to have country-wide validity. These assumptions were accounted for in the assessment of errors. It is nevertheless likely that, in the computation and mapping of the evaporation data, some regional variability has been suppressed by this unavoidable generalisation. Distillometers and pyrheliometers are now becoming more widely distributed throughout Kenya. Evaluation of the Penman or any other radiation-based estimate of potential evaporation should consequently become easier and more reliable as further insolation measurements are recorded. It is suggested that sufficient additional information will have become available to justify a recalculation and reappraisal of this work in 1971 or 1972.

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This study could not have been undertaken but for the diligence and conscientiousness of countless meteorological observers. The opportunity is taken to pay tribute to their anonymous services which have extended over a period of many years.

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TABLE I : GAZETTEER

Reference Number	Station name	Source	Lat.	Long.(E.)	Alt.(m.)	Kipp or Eppley	G.B.R.I.	Sunshine	Cloud	Cup counter	Anemograph	Beaufort
85.35000	Lokitaung	E.A.M.D.	4°15'N	35°45'	730				1946-54			1946-54
86.35000	Lodwar	E.A.M.D.	3°07'N	35°37'	506		1965-66	1957-63				1946-62
86.39000	Moyale	E.A.M.D.	3°32'N	39°03'	1113				1936-62			1936-62
86.41000	Mandera	E.A.M.D.	3°57'N	41°52'	331				1936-62			1936-62
87.37000	Marsabit	E.A.M.D.	2°20'N	37°59'	1360				1939-55			1939-55
88.35001	Kitale, D.C.	E.A.M.D.	1°01'N	35°00'	1900				1935-46			1939-46
88.35033	Kapenguria	E.A.M.D.	1°14'N	35°06'	2134				1956-62			1956-62
88.35038	Kitale, Airfield	E.A.M.D.	1°00'N	35°00'	1896		1966		1947-62			1947-62
88.36000	Maralal	E.A.M.D.	1°05'N	36°42'	1950				1946-54			1947-54
88.39000	Habaswein	W.D.D.	1°02'N	39°30'	200		1959-60	1959-60		1960		
88.40000	Wajir	E.A.M.D.	1°45'N	40°04'	244				1936-62			1936-62
89.34105	Busia, Cotton Res.	Agro-met.	0°28'N	34°07'	1170		1965			1965		
89.35018	Kapsabet	E.A.M.D.	0°12'N	35°07'	2000				1947-54			1947-54
89.35026	Eldoret, D.C.	E.A.M.D.	0°32'N	35°16'	2090				1932-46			1939-46
89.35077	Kipkabus Downs	E.A.M.D.	0°14'N	35°30'	2400				1953/4			1953/4
89.35086	Eldoret, Met. Station	E.A.M.D.	0°31'N	35°17'	2085			1959-63				1947-62
89.35088	Eldoret, Borderlands	E.A.M.D.	0°23'N	35°12'	2130				1953/4			1953/4
89.35121	Ainabkoi	E.A.M.D.	0°09'N	35°34'	2600				1953/4			1953/4
89.35133	Eldoret, Exp. Farm	W.D.D.	0°34'N	35°18'	2200		1963-66			1963-66		
89.36001	Rumuruti, D.C.	E.A.M.D.	0°16'N	36°33'	1860				1939-52			1939-52
89.36053	Marigat	Agro-met.	0°30'N	36°02'	1000		1958-66	1962-66		1958-66		
89.36064	Rumuruti, Dam	W.D.D.	0°18'N	36°34'	1770		1963-66			1963-66		

Reference Number	Station name	Source	Lat.	Long.(E.)	Alt.(m.)	Kipp or Eppley	G.B.R.I.	Sunshine	Cloud	Cup counter	Anemograph	Beaufort
89.37003	Isiolo	E.A.M.D.	0°21'N	37°35'	1104				1941-62			1941-62
89.37022	Nanyuki	E.A.M.D.	0°01'N	37°04'	1946				1940-62			1940-62
90.34003	Kisumu, Railway Stn.	E.A.M.D.	0°06'S	34°45'	1140				1939			1939
90.34025	Kisumu, Met. Stn.	E.A.M.D.	0°06'S	34°45'	1146			1939-62			1957-65	1939-62
90.34081	Kibos, Cotton Res.	Agro-met.	0°03'S	34°48'	1170		1963-65	1963-65		1963-65		
90.34086	Kano, Ahero	W.D.D.	0°09'S	34°56'	1200		1963-65			1963-65		
90.35069	Equator	E.A.M.D.	0°01'S	35°33'	2762			1939-60				1939-59
90.35093	Molo, Pyrethrum Res.	E.A.M.D.	0°14'S	35°44'	2500			1953-62				
90.35129	Molo, Marindas Farm	Agro-met.	0°20'S	35°41'	2800			1955-64				
90.35145	Kericho, T.R.I.	Agro-met.	0°21'S	35°20'	2070		1958-66	1958-66		1958-66		
90.35230	Koru, Coffee Res.	Agro-met.	0°07'S	35°16'	1620		1964/5			1964/5		
90.36002	Naivasha, D.O.	E.A.M.D.	0°43'S	36°26'	1900				1938-54			1938-54
90.36021	Nakuru, D.C.	E.A.M.D.	0°17'S	36°04'	1836				1931-55			1934-55
90.36043	Kagumo, Nyeri	E.A.M.D.	0°29'S	36°57'	1800				1940-46			1940-46
90.36135	Ol Joro Orok	Agro-met.	0°02'S	36°21'	2380		1964-66	1963-66				
90.36151	Subukia	Agro-met.	0°02'S	36°09'	2100			1955-60				
90.36164	South Kinangop	Agro-met.	0°45'S	36°43'	2600		1960-66			1960-66		
90.36233	Kimakia	Agro-met.	0°48'S	36°45'	2500		1957-66	1957-66		1957-66		
90.36236	Nakuru, Airfield	E.A.M.D.	0°18'S	36°09'	1890			1959-63				1957-62
90.36260	Lamuria	W.D.D.	0°08'S	36°52'	1850		1963-66			1963-66		
90.36267	Kedong ranch	Agro-met.	0°55'S	36°30'	1900		1961-66	1961-66		1961-66		
90.36281	Naivasha, Water Supply	W.D.D.	0°44'S	36°27'	1940		1965/6			1965/6		
90.37038	Embu, Kathiga	E.A.M.D.	0°36'S	37°17'	1250				1941			1941
90.37039	Kabondori	E.A.M.D.	0°42'S	37°40'	1140				1941			1941
90.37112	Mwea Tebere	Agro-met.	0°42'S	37°22'	1280		1964-66	1964-66		1964-66		
90.37130	Thika, Horticulture	Agro-met.	0°59'S	37°04'	1550		1963-65	1963-65		1963-65		
90.39000	Garissa	W.D.D.	0°29'S	39°38'	128		1963-66		1941-62	1963-66		1941-62
91.34004	Masara	E.A.M.D.	1°01'S	34°15'	1200				1939-41			1939-41

TABLE I : GAZETTEER

Reference Number	Station name	Source	Lat.	Long.(E.)	Alt.(m.)	Kipp or Eppley	G.B.R.I.	Sunshine	Cloud	Cup counter	Anemograph	Beaufort
91.35001	Narok	E.A.M.D.	1°08'S	35°50'	1890		1964-66		1939-62			1939-62
91.36010	Nairobi, Railway Stn.	E.A.M.D.	1°16'S	36°50'	1675				1936-48			1939-48
91.36025	Kabete, Laboratory	E.A.M.D.	1°15'S	36°46'	1737		1965	1953-62		1965		
91.36030	Kabete, Observatory	E.A.M.D.	1°16'S	36°45'	1820			1931-55				1934-54
91.36047	Kiambu, Kasarini	E.A.M.D.	1°12'S	36°49'	1731				1934-43			1934-43
91.36084	Ruiru, Coffee Res.	Agro-met.	1°04'S	36°54'	1610		1963/4	1963/4		1963/4		
91.36087	Nairobi, Eastleigh	E.A.M.D.	1°17'S	36°50'	1634				1942-57			1942-57
91.36121	Muguga	Agro-met.	1°13'S	36°38'	2100	1957-66	1957-66	1957-66		1957-66		
91.36130	Nairobi, Wilson	E.A.M.D.	1 19'S	36°48'	1680				1962-64			1962-64
91.36164	Nairobi, Dagoretti	E.A.M.D.	1°18'S	36°45'	1798	1956-66	1956-66	1956-66		1960-66	1956-66	
91.36167	Magadi	E.A.M.D.	1°53'S	36°17'	613				1943-62			1944-62
91.36168	Nairobi, Airport	E.A.M.D.	1°19'S	36°55'	1624			1960-66				1959-62
91.37041	Machakos, School	E.A.M.D.	1°31'S	37°17'	1680				1939-52			1939-52
91.37048	Thika, Sisal Res.	E.A.M.D.	1°01'S	37°06'	1460				1942-47			1942-47
91.37089	Katumani	Agro-met.	1°35'S	37°14'	1600		1965/6			1965/6		
91.37098	Machakos, Dam	W.D.D.	1°31'S	37°15'	1570		1963-66			1963-66		
91.38000	Kitui, Agr.Off.	E.A.M.D.	1°22'S	38°01'	1180				1948-54			1948-54
91.38014	Kitui, Dam	W.D.D.	1°21'S	38°00'	1090		1963-66			1963-66		
91.39001	Wayu	W.D.D.	1°32'S	39°34'	160		1965/6			1965/6		
91.40005	Galole	W.D.D.	1°30'S	40°02'	100		1963-66	1956-64		1963-66		
92.37000	Makindu	E.A.M.D.	2°17'S	37°50'	998				1938-62			1938-62
92.37004	Loitoketok, D.C.	E.A.M.D.	2°56'S	37°31'	1980				1940-43			1940-43
92.37022	Loitoketok, O.B. School	W.D.D.	2°57'S	37°32'	1850		1965/6			1966		
92.40001	Lamu	E.A.M.D.	2°16'S	40°54'	30			1959-66				1941-62

TABLE I : GAZETTEER

Reference Number	Station name	Source	Lat.	Long.(E.)	Alt.(m.)	Kipp or Eppley	G.B.R.I.	Sunshine	Cloud	Cup counter	Anemograph	Beaufort
93.38001	Voi	E.A.M.D.	3°24'S	38°34'	560		1964-66		1938-62			1938-66
93.38022	Bachuma	Agro-met.	3°42'S	38°57'	400		1966	1966		1966		
93.40007	Msabaha, Cotton Res.	Agro-met.	3°15'S	40°04'	30		1965	1963-65		1963-65		
93.40009	Malindi	E.A.M.D.	3°14'S	40°06'	20			1963-66				1940-54
94.39019	Mombasa, Town	E.A.M.D.	4°03'S	39°39'	16				1936-44			1936-44
94.39021	Mombasa, Port Reitz	W.D.D.	4°02'S	39°37'	55		1963-66	1949-62		1963-66		1946-62
87.34011	Atumatak (Uganda)	Agro-met.	2°14'N	34°39'	1500		1958-66	1961-66		1958-66		
89.35066	Kepchomo Estate	E.A.M.D.	0°06'N	35°14'				3 years				
90.34014	Kiabakari	E.A.M.D.	0°39'S	34°13'				2 years				
90.37096	Sagana	E.A.M.D.	0°39'S	37°12'				5 years				
91.36029	Karamaini	E.A.M.D.	1°03'S	36°58'				9 years				
91.36060	Anmer Estate	E.A.M.D.	1°08'S	36°51'				6 years				
91.36075	Kibubuti Estate	E.A.M.D.	1°09'S	36°46'				8 years				
94.39029	Matuga	E.A.M.D.	4°10'S	39°34'				6 years				

TABLE II : EVALUATION OF ERRORS

Observable or derived parameter	Instrument or mode of derivation	Assumed accuracy	Accuracy reflected in the factors		
			I	II	III
Air temperature	Screened thermometer	± 0.5 C°	± 1%	± 1%	± 2%
Temperature of dew point	Wet and dry bulb thermometers	± 0.5 C°		± 3.5%	± 13%
Radiation	Pyrheliometer	± 5%	± 5%		
	G.B.R.I.	± 7%	± 7%		
	Sunshine duration	± 0.2 hours	±10%		
	Cloud amount	± 0.5 oktas	±13%		
(0.10+0.90 n/N)	G.B.R.I.	± 7%		± 10%	
	Sunshine recorder	± 0.2 hours		± 2%	
	Cloud amount	± 0.5 oktas		± 7%	
(1 + U/100)	Cup counter	± 20 m.p.d.			± 7%
	Anemograph	± 13%			± 7%
	Beaufort	± 15%			±12%

n represents the mean daily duration of bright sunshine,

N represents the maximum possible daily duration of bright sunshine,

and U represents the daily wind run at 2 metres elevation.

STATION: Ahero, Kano
LATITUDE: 0° 09' S
ALTITUDE: 1200 m
RADIATION TERM: G.B.R.I.
PERIOD: 1963 to 1965
LONGITUDE: 34° 56' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.0	23.3	23.3	22.9	22.8	22.3	22.1	22.1	22.8	23.4	23.0	22.4
Dew Point(°C)	14.8	14.7	16.4	17.9	17.9	16.4	15.3	14.9	14.1	15.0	16.3	15.4
Radn.(ly/day)	637	641	642	571	572	572	520	542	606	590	556	567
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	73	86	79	63	58	62	64	68	74	71	67	71
Eo (mm/day)	6.60	6.87	6.83	5.97	5.75	5.63	5.40	5.65	6.45	6.46	5.99	5.88
Eo (mm/month)	205	195	212	179	178	169	167	175	194	200	180	182
Eo: 90% Lower	172	172	189	156	155	150	137	152	165	173	148	148
Eo: 90% Upper	238	218	235	202	201	188	197	198	223	227	212	216

Eo (mm/annum): 2236
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2236 mm/annum
90% Lower: 2093 " "
90% Upper: 2379 " "

STATION: Eldoret, Ag. Res.
LATITUDE: 0° 34' N
ALTITUDE: 2200 m
RADIATION TERM: G.B.R.I.
PERIOD: 1963 to 1966
LONGITUDE: 35° 18' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.2	16.1	16.5	16.3	15.4	14.4	14.2	14.1	14.5	16.0	15.9	15.3
Dew Point(°C)	7.8	9.8	8.8	10.7	10.8	10.0	11.0	11.4	10.3	9.4	11.1	11.6
Radn.(ly/day)	651	655	667	577	612	578	488	479	596	615	599	578
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	139	114	131	121	85	74	62	63	87	131	152	143
Eo (mm/day)	6.16	5.95	6.32	5.43	5.13	4.60	4.00	4.00	5.00	5.77	5.50	5.03
Eo (mm/month)	191	168	196	163	159	138	124	124	150	179	165	156
Eo: 90% Lower	167	152	179	147	143	126	107	111	132	159	141	133
Eo: 90% Upper	215	184	213	179	175	150	141	137	168	199	189	179

Eo (mm/annum): 1913
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1913 mm/annum
90% Lower: 1802 " "
90% Upper: 2024 " "

STATION: Galole
LATITUDE: 1° 30' S
ALTITUDE: 100 m
RADIATION TERM: Sunshine
G.B.R.I.(1963 to 1966)

PERIOD: 1956 to 1966
LONGITUDE: 40° 02' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp(°C)	28.4	29.3	29.1	28.2	27.4	26.2	25.1	25.2	26.1	26.8	27.8	27.7
Dew Point(°C)	22.0	22.0	23.2	23.1	22.3	21.6	20.4	20.0	20.6	22.2	23.6	22.9
Radn.(ly/day)	516	560	569	515	483	434	436	443	458	497	524	532
n (hours)	7.7	8.3	8.4	8.0	7.7	7.4	6.9	7.6	8.2	8.4	8.1	7.8
Cloud (oktas)												
n/N	0.63	0.69	0.69	0.66	0.64	0.62	0.57	0.63	0.68	0.69	0.66	0.64
C	0.561	0.593	0.593	0.577	0.567	0.556	0.530	0.561	0.588	0.593	0.577	0.567
U(miles/day)	75	75	81	111	144	153	168	162	165	129	80	70
Eo (mm/day)	6.39	7.15	7.13	6.37	6.16	5.60	5.45	5.87	6.37	6.39	6.33	6.19
Eo (mm/month)	198	202	221	191	191	168	169	182	191	198	190	192
Eo:90% Lower	175	185	204	174	173	155	148	165	170	179	166	166
Eo:90% Upper	221	219	238	208	209	181	190	199	212	217	214	218

Eo (mm/annum): 2293
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 2293 mm/annum
90% Lower: 2175 " "
90% Upper: 2411 " "

STATION: Garissa
LATITUDE: 0° 29' S
ALTITUDE: 128 m
RADIATION TERM: Cloud
G.B.R.I.(1963 to 1966)

PERIOD: 1941 to 1966
LONGITUDE: 39° 38' E
DESIGNATION: W.D.D.
WIND TERM: Beaufort
Cup Counter(1963 to 1966)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.6	29.4	30.3	30.1	28.9	27.3	26.5	26.7	27.5	28.7	28.9	28.3
Dew Point(°C)	20.1	20.5	21.3	21.9	20.8	19.2	18.2	18.1	18.5	19.5	21.2	21.5
Radn.(ly/day)	499	500	500	481	439	414	415	431	469	500	492	481
n (hours)												
Cloud (oktas)	5.2	5.5	5.6	5.6	5.2	5.2	5.7	5.8	5.7	5.7	6.1	6.1
n/N												
C	0.59	0.57	0.56	0.56	0.59	0.59	0.55	0.54	0.55	0.55	0.50	0.50
U(miles/day)	71	70	84	102	138	135	155	170	158	137	98	61
Eo (mm/day)	6.48	6.76	6.97	6.77	6.68	6.10	6.06	6.42	6.87	7.06	6.07	5.77
Eo (mm/month)	201	191	216	203	207	183	188	199	206	219	182	179
Eo: 90% Lower	178	175	199	184	188	168	165	180	184	197	159	155
Eo: 90% Upper	224	207	233	222	226	198	211	218	228	241	205	203

Eo (mm/annum): 2374
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2374 mm/annum
90% Lower: 2252 " "
90% Upper: 2496 " "

STATION: Habaswein
LATITUDE: 1° 02' N
ALTITUDE: 200 m
RADIATION TERM: G.B.R.I.

PERIOD: 1959 and 1960
LONGITUDE: 39° 30' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.8	29.6	29.8	28.9	29.2	28.0	26.7	27.3	28.0	28.7	28.2	29.5
Dew Point(°C)	18.3	18.3	20.6	20.6	19.2	17.2	16.4	16.4	16.1	17.5	19.7	19.4
Radn.(ly/day)	540	596	567	513	492	462	430	471	515	504	438	433
n (hours)	6.7		6.0	7.1	7.6	6.5	5.4	7.6	7.6	6.5	5.9	5.9
Cloud (oktas)												
n/N	0.55		0.50	0.59	0.63	0.54	0.49	0.63	0.63	0.54	0.49	0.49
C												
U(miles/day)	170	200	230	260	300	341	367	367	334	283	175	138
Eo (mm/day)	7.91	9.03	8.95	8.26	8.90	9.10	8.75	9.09	9.73	9.21	6.84	6.69
Eo (mm/month)	246	257	277	248	275	273	272	282	291	286	205	208
Eo: 90% Lower	217	235	256	225	249	251	238	256	260	257	179	180
Eo: 90% Upper	275	279	298	271	301	295	306	308	322	315	231	236

Eo (mm/annum): 3120
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 3120 mm/annum
90% Lower: 2960 " "
90% Upper: 3280 " "

STATION: Kitui Dam
LATITUDE: 1° 21' S
ALTITUDE: 1090 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1966
LONGITUDE: 38° 00' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.9	21.5	22.1	22.1	20.1	18.4	17.8	19.1	20.3	21.3	21.2	20.1
Dew Point(°C)	17.4	17.2	18.0	18.0	16.6	14.9	13.5	13.3	13.5	14.5	17.7	18.0
Radn.(ly/day)	582	612	559	495	472	441	374	455	512	535	505	522
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	120	120	130	120	130	130	140	150	150	150	120	120
Eo (mm/day)	5.48	6.23	5.97	5.33	4.77	4.27	3.97	4.97	5.77	6.10	5.23	4.94
Eo (mm/month)	170	176	185	160	148	128	123	154	173	189	157	153
Eo: 90% Lower	149	160	170	144	133	117	107	138	153	169	135	131
Eo: 90% Upper	191	192	200	176	163	139	139	170	193	209	179	175

Eo (mm/annum): 1916
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1916 mm/annum
90% Lower: 1818 " "
90% Upper: 2014 " "

STATION: Lamuria
LATITUDE: 0° 08' S
ALTITUDE: 1850 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1966
LONGITUDE: 36° 52' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	15.4	16.2	16.9	18.6	18.6	17.1	16.6	16.3	17.8	18.1	17.0	15.5
Dew Point(°C)	12.4	13.1	13.3	14.9	14.0	12.8	11.6	12.5	11.4	12.9	13.5	12.9
Radn.(ly/day)	482	527	488	449	511	501	478	456	508	424	373	409
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	75	80	80	93	120	129	144	152	160	124	82	76
Eo (mm/day)	4.26	4.71	4.65	4.53	5.03	4.67	4.71	4.45	5.50	4.74	3.83	3.71
Eo (mm/month)	132	133	144	136	156	140	146	138	165	147	115	115
Eo: 90% Lower	114	120	131	121	139	127	125	122	144	130	97	96
Eo: 90% Upper:	150	146	157	151	173	153	167	154	186	164	133	134

Eo (mm/annum): 1667
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1667 mm/annum
90% Lower: 1571 " "
90% Upper: 1763 " "

STATION: Loitoketok School
LATITUDE: 2° 57' S
ALTITUDE: 1850 m
RADIATION TERM: G.B.R.I.

PERIOD: 1965 and 1966
LONGITUDE: 37° 32' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.4	18.3	17.2	16.4		14.2	13.8	13.3	14.8			17.2
Dew Point(°C)	13.8	14.9	14.8	15.0		12.2	11.4	12.0	13.0			14.7
Radn.(ly/day)	569	433	380	470		447	336	418	499			531
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	70	71	64	83		86	73	87	117			70
Eo (mm/day)	5.17	4.38	3.75	4.12		3.55	2.95	3.35	4.27			4.79
Eo (mm/month)	160	123	116	124		107	91	104	128			148
Eo: 90% Lower	140	111	106	112		97	79	93	112			125
Eo: 90% Upper	180	135	126	136		117	103	115	144			171

Eo (mm/annum):
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo:

STATION: Machakos Dam
LATITUDE: 1° 31' S
ALTITUDE: 1570 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1966
LONGITUDE: 37° 15' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.8	19.7	20.3	19.8	18.7	16.8	15.6	16.5	17.6	19.4	19.6	18.7
Dew Point(°C)	15.2	14.8	15.9	15.8	15.1	13.4	12.1	12.3	12.6	13.4	15.1	15.3
Radn.(ly/day)	637	655	615	540	501	484	418	390	522	570	533	548
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	77	77	81	72	67	57	58	79	89	103	88	73
Eo (mm/day)	5.77	6.23	6.00	5.20	4.58	4.10	3.65	3.81	5.00	5.77	5.30	5.06
Eo (mm/month)	179	176	186	156	142	123	113	118	150	179	159	157
Eo: 90% Lower	156	160	170	140	127	112	97	106	132	159	136	133
Eo: 90% Upper	202	192	202	172	157	134	129	130	168	199	182	181

Eo (mm/annum): 1838
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1838 mm/annum
90% Lower: 1732 " "
90% Upper: 1944 " "

STATION: Naivasha Water Sup.
LATITUDE: 0° 44' S
ALTITUDE: 1940 m
RADIATION TERM: G.B.R.I.

PERIOD: 1965 and 1966
LONGITUDE: 36° 27' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.1	18.3	17.3	16.6	15.4	14.5	15.2	15.2	14.8	17.5	16.8	16.4
Dew Point(°C)	11.2	11.3	12.5	13.8	12.8	11.5	11.2	11.2	11.4	12.0	12.6	11.2
Radn.(ly/day)	445	447	354	342	502	430	433	439	456	399	385	409
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	165	142	135	106	122	126	113	120	144	169	124	114
Eo (mm/day)	4.96	5.23	4.18	3.55	4.33	3.83	3.97	4.13	4.29	4.74	4.16	4.28
Eo (mm/month)	154	146	130	107	134	115	123	128	129	147	125	133
Eo: 90% Lower	132	130	118	95	118	103	104	113	112	129	105	110
Eo: 90% Upper	176	162	142	119	150	127	142	143	146	165	145	156

Eo (mm/annum): 1571
Accuracy: Monthly Eo: 13%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1571 mm/annum
90% Lower: 1480 " "
90% Upper: 1662 " "

STATION: Rumuruti Dam
LATITUDE: 0° 18' N
ALTITUDE: 1770 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1966
LONGITUDE: 36° 34' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.1	17.1	17.0	17.4	17.3	16.0	16.4	16.7	16.5	17.5	17.2	16.8
Dew Point(°C)	12.0	11.8	12.2	14.0	12.3	11.3	11.5	12.0	11.2	11.7	12.7	13.3
Radn.(ly/day)	609	629	623	518	586	562	496	520	597	541	487	498
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	86	88	94	80	85	82	73	81	97	97	86	84
Eo (mm/day)	5.16	5.63	5.61	4.77	5.16	4.67	4.35	4.65	5.40	5.23	4.63	4.48
Eo (mm/month)	160	159	174	143	160	140	135	144	162	162	139	139
Eo: 90% Lower	143	147	162	131	146	129	119	132	146	147	123	121
Eo: 90% Upper	177	171	186	155	174	151	151	156	178	177	155	157

Eo (mm/annum): 1817
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 1817 mm/annum
90% Lower: 1735 " "
90% Upper: 1899 " "

STATION: Wayu
LATITUDE: 1° 32' S
ALTITUDE: 160 m
RADIATION TERM: G.B.R.I.

PERIOD: 1965 and 1966
LONGITUDE: 39° 34' E
DESIGNATION: W.D.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	29.8	30.0	30.2	28.6	27.8	25.6	25.8	26.1	27.1	28.0	28.1	29.2
Dew Point(°C)	21.4	21.7	22.8	22.9	20.8	19.3	18.8	18.8	19.8	20.9	22.7	21.8
Radn.(ly/day)	473	479	466	481	442	406	379	413	421	419	472	480
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	97	103	120	116	143	171	180	177	179	157	96	84
Eo (mm/day)	6.55	6.78	6.75	6.35	6.14	5.55	5.60	6.03	6.36	6.24	6.05	6.38
Eo (mm/month)	203	190	209	190	190	167	173	187	191	193	182	198
Eo: 90% Lower	180	174	193	173	172	154	152	170	170	174	159	171
Eo: 90% Upper	226	206	225	207	208	180	194	204	212	212	205	225

Eo (mm/annum): 2273
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2273 mm/annum
90% Lower: 2156 " "
90% Upper: 2390 " "

STATION: Bachuma
LATITUDE: 3° 42' S
ALTITUDE: 400 m
RADIATION TERM: G.B.R.I.

PERIOD: 1966 and 1967
LONGITUDE: 38° 57' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	26.8	27.5	28.4									27.0
Dew Point(°C)	18.8	19.5	20.6									19.4
Radn.(ly/day)	496	508	511									501
n (hours)	8.9	9.2	9.4									9.4
Cloud (oktas)												
n/N	0.72	0.76	0.78									0.76
C												
U(miles/day)	137	110	95									97
Eo (mm/day)	6.45	6.37	6.39									6.10
Eo (mm/month)	200	178	198									189
Eo: 90% Lower	177	163	182									163
Eo: 90% Upper	223	193	214									215

Eo (mm/annum):
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo:

STATION: Busia
LATITUDE: 0° 28' N
ALTITUDE: 1170 m
RADIATION TERM: G.B.R.I.

PERIOD: 1965
LONGITUDE: 34° 07' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)			22.9	21.6	21.1	20.6	20.8	20.6	21.1	21.7	21.5	21.8
Dew Point(°C)			15.9	17.1	17.0	16.0	16.2	15.4	16.5	17.6	16.8	17.3
Radn.(ly/day)			518	556	572	569	537	548	624	561	553	569
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)			103	95	76	70	69	70	72	72	66	72
Eo (mm/day)			5.93	5.67	5.47	5.27	5.10	5.30	6.09	5.65	5.48	5.58
Eo (mm/month)			184	170	170	158	158	164	183	175	164	173
Eo: 90% Lower			168	153	152	144	136	147	160	156	141	147
Eo: 90% Upper			200	187	188	172	180	181	206	194	187	199

Eo (mm/annum) :
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo:

STATION: Katumani
LATITUDE: 1° 35' S
ALTITUDE: 1600 m
RADIATION TERM: G.B.R.I.

PERIOD: 1965 and 1966
LONGITUDE: 37° 14' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	20.5	21.5	20.5	19.9	19.4	17.8	17.1	17.5	19.1	20.2	19.3	19.8
Dew Point(°C)	14.2	15.3	15.9	16.0	14.4	12.4	11.8	11.9	11.9	12.6	15.4	15.4
Radn.(ly/day)	562	546	519	438	482	440	385	393	461	496	438	557
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	111	98	91	80	74	73	66	77	101	105	101	110
Eo (mm/day)	5.84	5.89	5.35	4.53	4.68	4.20	3.74	4.03	5.10	5.52	4.53	5.48
Eo (mm/month)	181	165	166	136	145	126	116	125	153	171	136	170
Eo: 90% Lower	158	149	152	122	129	114	100	112	134	152	117	144
Eo: 90% Upper	204	181	180	150	161	138	132	138	172	190	155	196

Eo (mm/annum): 1790
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1790 mm/annum
90% Lower: 1687 " "
90% Upper: 1893 " "

STATION: Kedong
LATITUDE: 0° 55' S
ALTITUDE: 1900 m
RADIATION TERM: G.B.R.I.

PERIOD: 1961 to 1966
LONGITUDE: 36° 30' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.4	18.9	18.8	18.3	17.1	15.7	15.1	15.4	16.2	17.8	18.0	18.1
Dew Point(°C)	13.1	14.0	13.8	14.7	14.1	12.7	11.9	11.9	11.9	12.4	13.5	14.0
Radn.(ly/day)	550	559	547	485	439	429	402	420	501	531	480	489
n (hours)	8.2	8.6	7.9	6.5	5.9	6.3	5.6	5.5	6.8	7.6	6.3	6.7
Cloud (oktas)												
n/N	0.68	0.71	0.65	0.54	0.49	0.53	0.47	0.45	0.56	0.63	0.52	0.55
C												
U(miles/day)	122	125	120	94	83	80	74	84	108	130	115	111
Eo (mm/day)	5.68	5.72	5.68	4.90	4.16	3.90	3.58	4.00	4.90	5.52	5.00	4.90
Eo (mm/month)	176	161	176	147	129	117	111	124	147	171	150	152
Eo: 90% Lower	148	142	157	128	113	104	92	108	126	148	124	124
Eo: 90% Upper	204	180	195	166	145	130	130	140	168	194	176	180

Eo (mm/annum): 1761
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 1761 mm/annum
90% Lower: 1648 " "
90% Upper: 1874 " "

STATION: Kericho
LATITUDE: 0° 21' S
ALTITUDE: 2070 m
RADIATION TERM: G.B.R.I.

PERIOD: 1958 to 1966
LONGITUDE: 35° 20' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.5	16.4	16.7	16.3	15.9	15.2	14.9	14.8	15.1	15.5	15.9	16.2
Dew Point(°C)	10.1	10.1	11.0	12.6	12.8	11.6	11.4	11.4	11.3	11.5	11.5	11.0
Radn.(ly/day)	542	570	554	443	462	471	424	427	461	438	433	490
n (hours)	8.0	8.1	7.6	5.7	6.4	6.8	5.8	5.6	6.0	5.7	5.6	6.9
Cloud (oktas)												
n/N	0.66	0.67	0.63	0.47	0.53	0.56	0.48	0.46	0.50	0.47	0.46	0.57
C												
U(miles/day)	82	74	71	58	65	70	70	75	78	73	70	84
Eo (mm/day)	5.16	5.39	5.35	4.17	4.19	4.17	3.90	3.87	4.13	4.03	4.03	4.55
Eo (mm/month)	160	152	166	125	130	125	121	120	124	125	121	141
Eo: 90% Lower	134	135	149	109	114	111	100	104	105	108	99	115
Eo: 90% Upper	186	169	183	141	146	139	142	136	143	142	143	167

Eo (mm/annum): 1610
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 1610 mm/annum
90% Lower: 1511 " "
90% Upper: 1709 " "

STATION: Kibos
LATITUDE: 0° 03' S
ALTITUDE: 1170 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1965
LONGITUDE: 34° 48' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	22.5	22.2	22.8	22.2	21.8	21.4	21.1	21.2	21.9	22.7	22.3	21.8
Dew Point(°C)	14.0	14.4	15.1	15.8	15.2	13.8	13.2	13.1	12.9	13.3	14.3	14.2
Radn.(ly/day)	622	679	656	593	587	573	544	573	625	630	591	601
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	79	76	74	60	61	63	63	65	79	75	72	75
Eo (mm/day)	6.55	7.04	7.00	6.37	6.06	5.80	5.61	6.03	6.73	7.00	6.40	6.39
Eo (mm/month)	203	197	217	191	188	174	174	187	202	217	192	198
Eo: 90% Lower	174	177	196	169	166	156	147	165	175	190	162	164
Eo: 90% Upper	232	217	238	213	210	192	201	209	229	244	222	232

Eo (mm/annum): 2340
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2340 mm/annum
90% Lower: 2206 " "
90% Upper: 2474 " "

STATION: Kimakia
LATITUDE: 0° 48' S
ALTITUDE: 2500 m
RADIATION TERM: G.B.R.I.

PERIOD: 1957 to 1966
LONGITUDE: 36° 45' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	13.3	13.8	14.2	14.1	13.3	11.9	10.9	11.1	11.9	13.1	13.4	12.8
Dew Point(°C)	9.9	9.8	10.4	11.5	11.3	9.8	9.4	9.6	9.4	9.8	10.8	10.6
Radn.(ly/day)	561	590	528	455	400	387	287	316	436	485	464	484
n (hours)	8.2	8.9	8.2	6.8	5.6	5.5	3.4	3.3	5.9	6.8	6.4	7.1
Cloud (oktas)												
n/N	0.68	0.74	0.68	0.56	0.46	0.46	0.28	0.27	0.49	0.56	0.53	0.58
C												
U(miles/day)	135	133	140	129	109	96	79	82	108	133	138	129
Eo (mm/day)	4.84	5.28	5.16	4.40	3.74	3.50	2.87	3.19	4.07	4.61	4.37	4.29
Eo (mm/month)	150	149	160	132	116	105	89	99	122	143	131	133
Eo: 90% Lower	129	133	144	117	103	95	76	87	106	125	110	110
Eo: 90% Upper	171	165	176	147	129	115	102	111	138	161	152	156

Eo (mm/annum): 1529
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 1529 mm/annum
90% Lower: 1446 " "
90% Upper: 1612 " "

STATION: Koru
LATITUDE: 0° 07' S
ALTITUDE: 1620 m
RADIATION TERM: G.B.R.I.

PERIOD: 1964 and 1965
LONGITUDE: 35° 16' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	22.1	22.5	22.0	21.6	20.9	20.9	20.3	20.4	21.1	21.1	21.3	21.0
Dew Point(°C)	13.5	13.6	15.0	16.0	15.9	14.6	14.5	13.5	13.8	14.0	14.6	14.3
Radn.(ly/day)	555	546	541	473	469	488	438	438	508	493	503	539
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	80	85	75	60	50	60	60	70	70	70	65	65
Eo (mm/day)	5.87	6.11	5.81	5.07	4.77	4.80	4.52	4.68	5.43	5.26	5.27	5.48
Eo (mm/month)	182	174	180	152	148	144	140	145	163	163	158	170
Eo: 90% Lower	155	155	161	134	130	129	117	127	140	142	132	140
Eo: 90% Upper	209	193	199	170	166	159	163	163	186	184	184	200

Eo (mm/annum): 1919
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1919 mm/annum
90% Lower: 1808 " "
90% Upper: 2030 " "

STATION: Marigat
LATITUDE: 0° 30' N
ALTITUDE: 1000 m
RADIATION TERM: G.B.R.I.

PERIOD: 1957 to 1966
LONGITUDE: 36° 02' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	24.8	25.4	25.9	25.4	24.9	24.1	23.8	23.5	24.2	25.0	24.6	24.3
Dew Point(°C)	13.1	13.1	14.4	16.6	16.1	14.5	15.4	15.4	14.1	14.6	15.2	14.9
Radn. (ly/day)	589	605	587	537	551	534	494	541	585	562	528	536
n (hours)	9.8	10.0	9.5	8.4	9.0	9.5	8.6	8.3	9.5	9.0	8.0	8.4
Cloud (oktas)												
n/N	0.81	0.83	0.79	0.69	0.74	0.79	0.71	0.69	0.79	0.74	0.66	0.69
C												
U(miles/day)	75	78	79	70	66	68	64	65	68	72	73	70
Eo (mm/day)	6.61	6.91	6.84	6.23	6.13	5.77	5.39	5.87	6.43	6.42	6.07	6.10
Eo (mm/month)	205	195	212	187	190	173	167	182	193	199	182	189
Eo: 90% Lower	186	183	200	174	176	162	151	169	177	183	163	169
Eo: 90% Upper	224	207	224	200	204	184	183	195	209	215	201	209

Eo (mm/annum): 2274
Accuracy: Monthly Eo: 8%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 2274 mm/annum
90% Lower: 2195 " "
90% Upper: 2353 " "

STATION: Molo, Marindas
LATITUDE: 0° 20' S
ALTITUDE: 2800 m
RADIATION TERM: Sunshine

PERIOD: 1955 to 1964
LONGITUDE: 35° 41' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	13.0	13.2	13.9	13.1	12.7	11.5	10.7	10.9	11.5	12.6	12.2	12.3
Dew Point(°C)	9.1	10.6	10.6	11.1	11.7	10.4	10.5	10.6	10.1	10.6	11.0	9.8
Radn.(ly/day)												
n (hours)	7.5	8.2	8.0	6.8	6.8	7.0	5.3	4.4	6.0	7.3	7.2	7.9
Cloud (oktas)												
n/N	0.62	0.68	0.66	0.56	0.56	0.58	0.44	0.36	0.50	0.60	0.60	0.65
C	0.56	0.59	0.58	0.53	0.53	0.54	0.46	0.42	0.49	0.55	0.55	0.57
U(miles/day)	120	125	115	110	110	100	120	115	125	110	95	125
Eo (mm/day)	4.40	4.67	4.84	4.10	3.67	3.39	2.89	2.93	3.67	4.26	3.93	4.14
Eo (mm/month)	136	132	150	123	114	102	90	91	110	132	118	128
Eo: 90% Lower	115	117	134	107	99	91	75	79	94	114	97	105
Eo: 90% Upper	157	147	166	139	129	113	105	103	126	150	139	151

Eo (mm/annum): 1426
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1426 mm/annum
90% Lower: 1334 " "
90% Upper: 1518 " "

STATION: Msabaha
LATITUDE: 3° 15' S
ALTITUDE: 30 m
RADIATION TERM: Sunshine
G.B.R.I.(1965)

PERIOD: 1963 to 1965
LONGITUDE: 40° 04' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	25.6	25.7	27.0	26.6	25.2	23.7	23.3	23.3	23.9	24.8	25.8	26.2
Dew Point(°C)	22.1	21.3	22.2	22.8	22.0	20.9	20.1	20.1	20.0	21.1	22.1	22.2
Radn.(ly/day)		515	543	512	466	434	414	451	489	509	494	549
n (hours)	9.0	8.6	9.6	8.0	7.8	7.6	7.5	8.8	9.0	8.0	7.8	10.1
Cloud (oktas)												
n/N	0.74	0.70	0.79	0.67	0.65	0.64	0.63	0.73	0.74	0.66	0.64	0.82
C	0.62	0.60	0.65	0.58	0.57	0.57	0.56	0.61	0.62	0.58	0.57	0.66
U(miles/day)	96	114	108	151	171	162	159	138	139	118	72	82
Eo (mm/day)	6.10	5.88	6.16	5.93	5.00	4.57	4.77	5.00	5.87	6.19	6.03	5.97
Eo (mm/month)	189	165	191	178	155	137	148	155	176	192	181	185
Eo: 90% Lower	167	151	176	162	140	126	130	141	157	173	158	160
Eo: 90% Upper	211	179	206	194	170	148	166	169	195	211	204	210

Eo (mm/annum): 2052
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2052 mm/annum
90% Lower: 1947 " "
90% Upper: 2157 " "

STATION: Muguga
LATITUDE: 1° 13' S
ALTITUDE: 2100 m
RADIATION TERM: Kipp

PERIOD: 1957 to 1966
LONGITUDE: 36° 38' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.7	17.3	17.6	16.8	15.8	14.4	13.4	14.0	15.3	16.6	16.2	16.1
Dew Point(°C)	11.0	10.6	11.8	13.1	13.0	11.4	10.4	10.4	10.0	10.6	12.1	12.0
Radn.(ly/day)	543	580	560	460	399	408	346	375	468	517	494	515
n (hours)	9.4	9.7	9.0	7.4	6.5	6.6	5.0	5.3	7.0	7.7	7.6	7.8
Cloud (oktas)												
n/N	0.77	0.80	0.74	0.61	0.54	0.55	0.42	0.44	0.58	0.64	0.62	0.64
C												
U(miles/day)	186	178	190	169	132	117	113	131	158	189	193	183
Eo (mm/day)	5.58	6.06	6.00	4.70	3.74	3.57	3.10	3.52	4.77	5.52	4.97	4.90
Eo (mm/month)	173	171	186	141	116	107	96	109	143	171	149	152
Eo: 90% Lower	143	149	164	122	100	94	78	93	120	145	119	122
Eo: 90% Upper	203	193	208	160	132	120	114	125	166	197	179	182

Eo (mm/annum): 1714
Accuracy: Monthly Eo: 7%
Accuracy: Annual Eo: 7%

Variability : Mean Eo : 1714 mm/annum
90% Lower: 1599 " "
90% Upper: 1829 " "

STATION: Mwea Tebere
LATITUDE: 0° 42' S
ALTITUDE: 1280 m
RADIATION TERM: G.B.R.I.
PERIOD: 1964 to 1966
LONGITUDE: 37° 22' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	21.2	22.4	22.8	22.4	21.8	20.9	19.7	20.0	21.5	22.3	21.8	20.5
Dew Point(°C)	15.9	15.6	17.0	17.8	15.6	14.8	13.6	13.3	13.7	14.1	16.3	15.8
Radn.(ly/day)	651	658	611	572	547	479	380	460	549	572	575	615
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	78	84	80	53	43	49	43	60	82	93	87	83
Eo (mm/day)	6.35	6.78	6.45	5.77	5.35	4.67	3.97	4.77	5.87	6.32	6.10	6.06
Eo (mm/month)	197	192	200	173	166	140	123	148	176	196	183	188
Eo: 90% Lower	171	174	183	155	149	128	106	132	154	174	157	159
Eo: 90% Upper	223	210	217	191	183	152	140	164	198	218	209	217

Eo (mm/annum): 2082
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo: 2082 mm/annum
90% Lower: 1962 " "
90% Upper: 2202 " "

STATION: 01 Joro Orok
LATITUDE: 0° 02' S
ALTITUDE: 2380 m
RADIATION TERM: G.B.R.I.
PERIOD: 1963 to 1966
LONGITUDE: 36° 21' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	13.6	14.8	15.0	15.2	14.4	12.9	12.8	12.9	12.9	13.6	13.9	13.8
Dew Point(°C)	9.4	8.8	8.3	11.1	9.9	9.5	10.1	10.5	9.4	9.0	10.0	10.1
Radn.(ly/day)	468	464	486	408	450	428	338	373	428	396	390	439
n (hours)	8.2	8.1	8.3	6.8	7.6	7.0	5.7	5.7	7.4	5.1	5.2	8.1
Cloud (oktas)												
n/N	0.68	0.67	0.69	0.56	0.63	0.58	0.47	0.47	0.61	0.42	0.43	0.67
C												
U(miles/day)	86	88	94	80	85	82	72	81	97	97	86	84
Eo (mm/day)	4.16	4.62	4.90	3.90	3.94	3.63	3.03	3.26	3.90	3.94	3.67	3.48
Eo (mm/month)	129	131	152	117	122	109	94	101	117	122	110	108
Eo: 90% Lower	110	117	137	104	108	98	79	89	101	107	92	89
Eo: 90% Upper	148	145	167	130	136	120	109	113	133	137	128	127

Eo (mm/annum): 1412
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1412 mm/annum
90% Lower: 1330 " "
90% Upper: 1494 " "

STATION: Ruiru
LATITUDE: 1° 04' S
ALTITUDE: 1610 m
RADIATION TERM: G.B.R.I.(1964) Sunshine(1963)
PERIOD: 1963 and 1964
LONGITUDE: 36° 54' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.2	19.6	20.1	19.6	18.7	17.3	16.3	16.3	17.3	20.4	19.3	17.8
Dew Point(°C)	13.9	13.5	14.5	15.4	15.2	13.5	12.1	12.7	12.0	12.8	14.3	15.1
Radn.(ly/day)	573	486	493	347	367	338	280	344	389		474	382
n (hours)	8.7	8.7	7.9	4.5	4.5	4.6	4.1	3.6	5.5	8.6	6.7	5.9
Cloud (oktas)												
n/N	0.72	0.72	0.65	0.37	0.37	0.38	0.34	0.30	0.45	0.71	0.55	0.48
C	0.61	0.61	0.57	0.42	0.43	0.43	0.41	0.39	0.47	0.60	0.52	0.48
U(miles/day)	100	100	100	90	80	80	80	90	100	100	120	120
Eo (mm/day)	5.16	5.30	5.52	4.17	3.71	3.47	3.39	3.45	4.53	5.84	5.00	3.74
Eo (mm/month)	160	151	171	125	115	104	105	107	136	181	150	116
Eo: 90% Lower	138	135	155	112	103	94	89	95	119	160	127	97
Eo: 90% Upper	182	167	187	138	127	114	121	119	153	202	173	135

Eo (mm/annum): 1621
Accuracy: Monthly Eo: 13%
Accuracy: Annual Eo: 12%

Variability : Mean Eo : 1621 mm/annum
90% Lower: 1527 " "
90% Upper: 1715 " "

STATION: South Kinangop
LATITUDE: 0° 45' S
ALTITUDE: 2600 m
RADIATION TERM: G.B.R.I.
PERIOD: 1960 to 1966
LONGITUDE: 36° 43' E
DESIGNATION: AGRO/MET
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	11.5	11.8	12.5	13.0	12.2	10.8	10.4	10.3	10.7	11.9	12.0	11.4
Dew Point(°C)	9.2	8.9	9.8	10.7	10.7	9.4	9.1	9.2	9.1	9.8	10.2	10.0
Radn.(ly/day)	431	446	452	389	362	361	305	324	385	428	390	401
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	71	79	90	79	71	69	57	56	77	94	78	66
Eo (mm/day)	3.74	3.99	4.16	3.67	3.19	2.93	2.61	2.77	3.33	3.84	3.50	3.39
Eo (mm/month)	116	113	129	110	99	88	81	86	100	119	105	105
Eo: 90% Lower	102	102	117	99	89	80	70	78	88	106	89	89
Eo: 90% Upper	130	124	141	121	109	96	92	94	112	132	121	121

Eo (mm/annum): 1251
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 1251 mm/annum
90% Lower: 1180 " "
90% Upper: 1322 " "

STATION: Subukia
LATITUDE: 0° 02' S
ALTITUDE: 2100 m
RADIATION TERM: Sunshine

PERIOD: 1955 to 1960
LONGITUDE: 36° 09' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	15.5	17.0	17.5	16.9	16.5	16.1	16.0	15.2	15.9	16.1	16.4	16.5
Dew Point(°C)	12.2	8.9	11.1	12.8	13.3	12.2	12.8	11.7	12.2	12.5	12.2	12.2
Radn.(ly/day)												
n (hours)	8.0	8.4	8.0	6.4	6.7	6.9	6.2	6.9	7.2	7.0	6.3	7.3
Cloud (oktas)												
n/N	0.66	0.69	0.66	0.53	0.55	0.57	0.51	0.57	0.59	0.58	0.52	0.60
C	0.577	0.593	0.577	0.509	0.519	0.530	0.498	0.530	0.546	0.536	0.504	0.546
U(miles/day)	85	90	95	80	85	80	70	80	100	95	85	85
Eo (mm/day)	4.51	5.39	5.32	4.41	4.04	3.95	3.74	4.11	4.58	4.59	4.29	4.43
Eo (mm/month)	140	152	165	132	125	119	116	127	137	142	129	137
Eo: 90% Lower	120	136	149	117	110	107	98	112	119	125	108	114
Eo: 90% Upper	160	168	181	147	140	131	134	142	155	159	150	160

Eo (mm/annum): 1621
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1621 mm/annum
90% Lower: 1527 " "
90% Upper: 1715 " "

STATION: Thika, Hortic. Res.
LATITUDE: 0° 59' S
ALTITUDE: 1550 m
RADIATION TERM: G.B.R.I.

PERIOD: 1963 to 1965
LONGITUDE: 37° 04' E
DESIGNATION: AGRO/MET
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.0	20.0	20.7	20.3	19.4	17.8	16.8	17.1	18.6	20.1	19.9	19.1
Dew Point(°C)	14.5	14.4	16.0	17.1	16.1	14.1	13.3	13.5	14.3	16.3	16.8	16.4
Radn.(ly/day)	535	576	530	449	405	399	342	325	436	458	423	450
n (hours)												
Cloud (oktas)												
n/N												
C												
U(miles/day)	110	110	100	90	80	75	70	70	80	90	100	100
Eo (mm/day)	5.16	5.79	5.45	4.67	4.06	3.80	3.42	3.35	4.50	4.81	4.23	4.39
Eo (mm/month)	160	165	169	140	126	114	106	104	135	149	127	136
Eo: 90% Lower	138	149	153	124	112	103	91	93	118	132	108	114
Eo: 90% Upper	182	181	185	156	140	125	121	115	152	166	146	158

Eo (mm/annum): 1631
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1631 mm/annum
90% Lower: 1536 " "
90% Upper: 1726 " "

STATION: Atumatak
PERIOD: 1958 to 1966
LATITUDE: 2° 14' N
LONGITUDE: 34° 39' E
ALTITUDE: 1500 m
DESIGNATION: Uganda:AGRO/MET
RADIATION TERM: G.B.R.I.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	22.6	22.5	22.4	22.0	21.6	21.1	20.5	20.8	21.3	22.2	22.2	21.8
Dew Point(°C)	12.0	12.8	14.4	16.0	16.0	15.0	15.3	14.9	14.4	14.1	13.7	13.5
Radn.(ly/day)	500	558	553	488	509	498	462	500	535	516	500	510
n (hours)	10.0	9.4	9.0	7.5	8.6	8.3	7.3	7.7	8.1	8.5	8.0	8.8
Cloud (oktas)												
n/N	0.83	0.78	0.74	0.62	0.70	0.68	0.60	0.63	0.67	0.70	0.67	0.73
C												
U(miles/day)	113	92	95	77	54	53	46	57	62	91	110	108
Eo (mm/day)	6.42	6.09	6.13	5.17	5.10	5.07	4.55	5.06	5.67	5.77	6.00	5.87
Eo (mm/month)	199	172	190	155	158	152	141	157	170	179	180	182
Eo: 90% Lower	163	149	167	133	135	133	115	135	142	151	144	145
Eo: 90% Upper	235	195	213	177	181	171	167	179	198	207	216	219

Eo (mm/annum): 2035

Accuracy: Monthly Eo: 9%

Accuracy: Annual Eo: 8%

Variability : Mean Eo : 2035 mm/annum
90% Lower: 1834 " "
90% Upper: 2236 " "

STATION: Ainabkoi
LATITUDE: 0° 09' N
ALTITUDE: 2600 m
RADIATION TERM: Cloud
PERIOD: 1953 and 1954
LONGITUDE: 35° 34' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	13.9	14.6	15.1	14.3	13.4	13.0	12.1	12.3	12.6	13.1	12.9	13.1
Dew Point(°C)	6.1	4.7	6.7	10.1	10.6	10.6	9.5	10.0	9.2	9.3	9.6	8.9
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.2	4.6	5.4	6.2	5.4	6.4	5.8	7.1	4.4	4.7	6.4	5.5
n/N												
C	0.66	0.63	0.58	0.49	0.58	0.47	0.54	0.34	0.65	0.63	0.47	0.57
U(miles/day)	126	140	155	118	96	74	74	74	96	118	140	133
Eo (mm/day)	5.33	5.77	5.60	4.21	4.08	3.27	3.55	2.75	4.73	4.84	3.88	4.40
Eo (mm/month)	165	162	174	126	126	98	110	85	142	150	116	136
Eo: 90% Lower	144	146	159	113	113	89	94	76	125	134	99	116
Eo: 90% Upper	186	178	189	139	139	107	126	94	159	166	133	156

Eo (mm/annum): 1590
Accuracy: Monthly Eo: 19%
Accuracy: Annual Eo: 15%

Variability : Mean Eo : 1590 mm/annum
90% Lower: 1498 " "
90% Upper: 1682 " "

STATION: Dagoretti
LATITUDE: 1° 18' S
ALTITUDE: 1798 m
RADIATION TERM: Eppley
PERIOD: 1956 to 1966
LONGITUDE: 36° 54' E
DESIGNATION: E.A.M.D.
WIND TERM: Cup Counter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.0	18.1	19.1	18.9	17.9	16.3	15.1	15.9	16.9	18.6	18.0	17.9
Dew Point(°C)	12.3	11.6	13.0	14.0	13.9	11.8	11.1	11.0	11.3	11.8	13.3	13.3
Radn.(ly/day)	550	588	550	466	412	393	330	351	449	480	467	499
n (hours)	9.0	9.4	8.6	7.1	6.1	5.8	4.3	4.3	5.9	7.1	7.1	8.0
Cloud (oktas)												
n/N	0.73	0.77	0.72	0.60	0.49	0.49	0.36	0.35	0.48	0.59	0.57	0.66
C												
U(miles/day)	125	119	118	95	69	63	59	68	79	109	122	125
Eo (mm/day)	5.42	5.88	5.71	4.80	4.03	3.67	3.13	3.48	4.57	5.10	4.83	4.97
Eo (mm/month)	168	166	177	144	125	110	97	108	137	158	145	154
Eo: 90% Lower	147	150	162	130	113	100	85	97	121	141	125	131
Eo: 90% Upper	189	182	192	158	137	120	109	119	153	175	165	177

Eo (mm/annum): 1689
Accuracy: Monthly Eo: 7%
Accuracy: Annual Eo: 6%

Variability : Mean Eo : 1689 mm/annum
90% Lower: 1594 " "
90% Upper: 1784 " "

STATION: Eldoret, D.C. PERIOD: 1932 to 1946
LATITUDE: 0° 32' N LONGITUDE: 35° 16' E
ALTITUDE: 2090 m DESIGNATION: E.A.M.D.
RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.2	17.8	18.1	18.1	17.3	16.2	15.6	15.6	16.1	17.1	17.3	16.8
Dew Point(°C)	8.2	8.0	9.9	11.9	12.3	11.8	12.3	12.2	10.8	10.1	10.7	9.4
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.4	3.9	4.1	4.6	4.3	4.7	5.4	4.8	4.1	4.0	4.5	3.9
n/N												
C	0.69	0.67	0.66	0.63	0.65	0.63	0.58	0.62	0.66	0.67	0.64	0.67
U(miles/day)	117	123	121	114	86	86	82	86	93	134	140	141
Eo (mm/day)	5.79	6.22	6.18	5.67	5.03	4.60	4.32	4.67	5.39	5.95	5.69	5.64
Eo (mm/month)	179	176	192	170	156	138	134	145	162	184	171	175
Eo: 90% Lower	156	160	176	153	140	126	115	129	143	163	146	149
Eo: 90% Upper	202	192	208	187	172	150	153	161	181	205	196	201

Eo (mm/annum): 1982 Variability : Mean Eo : 1982 mm/annum
Accuracy: Monthly Eo: 15% 90% Lower: 1867 " "
Accuracy: Annual Eo: 14% 90% Upper: 2097 " "

STATION: Eldoret Met. PERIOD: 1959 to 1966
LATITUDE: 0° 31' N LONGITUDE: 35° 17' E
ALTITUDE: 2085 m DESIGNATION: E.A.M.D.
RADIATION TERM: Sunshine WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.9	17.3	17.9	17.7	16.9	15.7	15.3	15.5	15.9	16.6	16.9	16.7
Dew Point(°C)	8.6	7.7	8.9	11.4	11.9	11.4	11.7	12.0	11.2	10.6	10.3	9.8
Radn.(ly/day)												
n (hours)	9.1	9.0	8.6	7.9	8.0	7.6	5.9	5.7	7.5	7.7	8.2	8.3
Cloud (oktas)												
n/N	0.76	0.74	0.71	0.65	0.66	0.62	0.49	0.47	0.62	0.64	0.68	0.69
C	0.63	0.62	0.60	0.57	0.58	0.56	0.49	0.48	0.56	0.57	0.59	0.59
U(miles/day)	155	163	170	140	126	111	103	111	133	170	185	163
Eo (mm/day)	5.87	6.25	6.30	5.34	4.79	4.19	3.80	3.98	4.92	5.48	5.59	5.41
Eo (mm/month)	182	177	195	160	148	126	118	123	148	170	168	168
Eo: 90% Lower	159	161	178	144	132	114	102	110	130	151	144	142
Eo: 90% Upper	205	193	212	176	164	138	134	136	166	189	192	194

Eo (mm/annum): 1883 Variability : Mean Eo : 1883 mm/annum
Accuracy: Monthly Eo: 12% 90% Lower: 1775 " "
Accuracy: Annual Eo: 11% 90% Upper: 1991 " "

STATION: Eldoret, Borderlands
LATITUDE: 0° 23' N
ALTITUDE: 2130 m
RADIATION TERM: Cloud
PERIOD: 1953 and 1954
LONGITUDE: 35° 12' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.9	18.4	19.0	18.1	17.2	16.3	15.6	16.0	15.9	16.7	17.1	17.1
Dew Point(°C)	6.8	6.3	8.0	12.1	12.1	12.8	11.9	12.4	10.8	10.8	10.1	9.8
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.2	3.4	3.9	5.2	4.4	5.3	5.4	5.4	4.2	3.9	3.9	4.1
n/N												
C	0.69	0.69	0.67	0.59	0.65	0.59	0.58	0.58	0.66	0.67	0.67	0.66
U(miles/day)	185	170	155	111	118	81	89	81	103	126	200	148
Eo (mm/day)	6.50	7.02	6.87	5.33	5.16	4.23	4.22	4.44	5.39	5.83	6.22	5.78
Eo (mm/month)	202	197	213	160	160	127	131	138	162	181	187	179
Eo: 90% Lower	176	178	194	144	144	115	113	123	143	161	160	152
Eo: 90% Upper	228	216	232	176	176	139	149	153	181	201	214	206

Eo (mm/annum): 2037
Accuracy: Monthly Eo: 19%
Accuracy: Annual Eo: 15%

Variability : Mean Eo : 2037 mm/annum
90% Lower: 1919 " "
90% Upper: 2155 " "

STATION: Embu, Kathiga
LATITUDE: 0° 36' S
ALTITUDE: 1250 m
RADIATION TERM: Cloud
PERIOD: 1941
LONGITUDE: 37° 17' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.8	24.8	25.1	25.1	23.9	22.1	21.1	21.9	23.8	25.4	23.9	23.3
Dew Point(°C)	13.2	14.0	15.3	16.7	17.2	15.8	12.9	14.1	12.9	14.3	16.0	16.3
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.5	4.3	4.8	5.3	5.8	6.8	5.9	6.4	5.1	5.4	5.4	4.9
n/N												
C	0.64	0.65	0.62	0.59	0.54	0.39	0.53	0.47	0.60	0.58	0.58	0.62
U(miles/day)	151	147	92	66	65	49	56	49	104	92	83	68
Eo (mm/day)	7.09	7.50	6.78	6.10	5.14	3.81	4.64	4.58	6.51	6.56	5.99	5.87
Eo (mm/month)	220	210	210	183	159	114	144	142	195	203	180	182
Eo: 90% Lower	190	188	191	163	142	103	123	126	170	180	152	153
Eo: 90% Upper	250	232	229	203	176	125	165	158	220	226	208	211

Eo (mm/annum): 2142
Accuracy: Monthly Eo: 23%
Accuracy: Annual Eo: 15%

Variability : Mean Eo : 2142 mm/annum
90% Lower: 2018 " "
90% Upper: 2266 " "

STATION: Equator
LATITUDE: 0° 01' S
ALTITUDE: 2762 m
RADIATION TERM: Sunshine
PERIOD: 1939 to 1960
LONGITUDE: 35° 33' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	13.7	14.3	14.5	14.0	13.5	12.6	11.8	11.9	12.7	13.1	13.3	13.0
Dew Point(°C)	6.2	5.8	6.8	8.9	9.2	8.6	8.9	9.1	8.0	7.9	8.3	7.6
Radn.(ly/day)												
n (hours)	8.9	9.1	8.6	7.2	7.7	6.7	5.3	5.4	7.4	8.0	7.5	8.2
Cloud (oktas)												
n/N	0.74	0.75	0.71	0.60	0.64	0.55	0.44	0.45	0.61	0.66	0.62	0.68
C	0.619	0.624	0.603	0.546	0.567	0.519	0.461	0.467	0.551	0.577	0.556	0.588
U(miles/day)	236	236	251	214	185	148	126	118	148	200	251	259
Eo (mm/day)	5.77	6.25	6.20	5.04	4.52	3.89	3.36	3.57	4.64	5.18	5.11	5.28
Eo (mm/month)	179	177	192	151	140	117	104	111	139	161	153	164
Eo: 90% Lower	156	161	176	135	125	106	89	100	122	143	131	139
Eo: 90% Upper	202	193	208	167	155	128	119	122	156	179	175	189

Eo (mm/annum): 1788
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 11%
Variability : Mean Eo : 1788 mm/annum
90% Lower: 1685 " "
90% Upper: 1891 " "

STATION: Isiolo
LATITUDE: 0° 21' N
ALTITUDE: 1104 m
RADIATION TERM: Cloud
PERIOD: 1941 to 1962
LONGITUDE: 37° 35' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.3	24.3	24.7	23.9	23.9	23.2	22.6	22.9	23.9	24.3	22.6	22.3
Dew Point(°C)	14.1	13.7	14.8	16.5	16.1	14.6	13.8	13.6	13.5	14.3	16.0	15.8
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.9	2.6	3.5	3.8	3.1	2.8	3.5	3.4	2.8	3.8	4.5	3.9
n/N												
C	0.69	0.70	0.67	0.66	0.69	0.69	0.67	0.68	0.69	0.66	0.63	0.66
U(miles/day)	111	111	133	133	177	207	222	222	207	148	96	96
Eo (mm/day)	6.73	7.36	7.43	6.87	6.98	6.97	6.94	7.46	8.05	7.34	6.02	6.03
Eo (mm/month)	209	208	230	206	216	209	215	231	241	228	181	187
Eo: 90% Lower	186	192	214	189	197	193	190	211	216	207	159	164
Eo: 90% Upper	232	224	246	223	235	225	240	251	266	249	203	210

Eo (mm/annum): 2561
Accuracy: Monthly Eo: 14%
Accuracy: Annual Eo: 14%
Variability : Mean Eo : 2561 mm/annum
90% Lower: 2446 " "
90% Upper: 2676 " "

STATION: Kabete Laboratories
LATITUDE: 1° 15' S
ALTITUDE: 1737 m
RADIATION TERM: Sunshine
G.B.R.I. (1965)

PERIOD: 1921 to 1962 & 1965
LONGITUDE: 36° 46' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort
Cup Counter (1965)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.9	19.7	19.9	19.3	18.2	16.9	15.9	16.3	17.6	18.7	18.4	18.1
Dew Point(°C)	11.8	11.6	13.0	14.4	14.2	12.5	11.5	11.5	11.2	12.1	13.7	13.6
Radn.(ly/day)	500	621	553	458	410	458	357	363	494	440	387	511
n (hours)	9.2	9.5	8.4	6.7	5.8	4.6	4.3	4.3	6.1	7.1	6.8	8.1
Cloud (oktas)												
n/N	0.70	0.75	0.69	0.56	0.47	0.45	0.38	0.36	0.48	0.54	0.51	0.65
C	0.598	0.624	0.593	0.525	0.477	0.467	0.430	0.419	0.482	0.514	0.498	0.572
U(miles/day)	118	118	111	96	81	74	67	74	89	111	118	126
Eo (mm/day)	5.58	6.23	5.90	4.87	4.03	3.77	3.48	3.74	4.67	5.10	4.70	5.13
Eo (mm/month)	173	176	183	146	125	113	108	116	140	158	141	159
Eo: 90% Lower	151	160	167	131	113	103	94	104	124	141	122	136
Eo: 90% Upper	195	192	199	161	137	123	122	128	156	175	160	182

Eo (mm/annum) 1738
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1738 mm/annum
90% Lower: 1640 " "
90% Upper: 1836 " "

STATION: Kabete Observatory
LATITUDE: 1° 16' S
ALTITUDE: 1820 m
RADIATION TERM: Sunshine

PERIOD: 1931 to 1955
LONGITUDE: 36° 45' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.7	19.5	19.7	19.1	17.9	16.5	15.7	16.1	17.5	18.7	18.3	18.1
Dew Point(°C)	11.3	10.9	12.5	14.0	13.8	12.3	11.1	11.0	10.9	11.4	12.9	12.6
Radn.(ly/day)												
n (hours)	9.6	9.4	8.5	6.9	6.1	4.8	4.1	4.0	6.1	7.2	7.2	8.4
Cloud (oktas)												
n/N	0.79	0.78	0.70	0.57	0.50	0.40	0.34	0.33	0.50	0.59	0.59	0.69
C	0.646	0.640	0.598	0.530	0.493	0.440	0.409	0.404	0.493	0.540	0.540	0.593
U(miles/day)	118	118	111	96	81	74	67	74	89	111	118	126
Eo (mm/day)	6.09	6.29	5.95	4.94	4.10	3.48	3.35	3.64	4.70	5.33	5.09	5.35
Eo (mm/month)	189	178	184	148	127	104	104	113	141	165	153	166
Eo: 90% Lower	166	162	168	133	115	95	90	101	125	147	132	142
Eo: 90% Upper	212	194	200	163	139	113	118	125	157	183	174	190

Eo (mm/annum): 1772
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1772 mm/annum
90% Lower: 1672 " "
90% Upper: 1872 " "

STATION: Kabondori
LATITUDE: 0° 42' S
ALTITUDE: 1140 m
RADIATION TERM: Cloud

PERIOD: 1941
LONGITUDE: 37° 40' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	21.3	23.2	22.6	23.1	22.1	20.6	19.3	20.8	21.9	23.2	21.9	21.2
Dew Point(°C)	14.6	15.8	17.1	17.9	17.9	15.8	13.7	14.3	14.4	15.6	17.6	18.0
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	5.6	5.9	6.2	6.4	6.8	7.4	6.9	7.4	6.2	6.7	6.8	6.4
n/N												
C	0.56	0.53	0.49	0.47	0.39	0.29	0.37	0.29	0.49	0.41	0.39	0.47
U(miles/day)	149	113	107	82	118	112	128	130	125	111	119	112
Eo (mm/day)	5.81	5.89	5.30	4.87	4.03	3.27	3.86	3.84	5.42	5.05	4.30	4.44
Eo (mm/month)	180	165	164	146	125	98	120	119	163	157	129	138
Eo: 90% Lower	155	149	148	130	111	89	102	106	142	138	109	115
Eo: 90% Upper	205	181	180	162	139	107	138	132	184	176	149	161

Eo (mm/annum): 1704
Accuracy: Monthly Eo: 23%
Accuracy: Annual Eo: 15%

Variability : Mean Eo : 1704 mm/annum
90% Lower: 1606 " "
90% Upper: 1802 " "

STATION: Kapenguria
LATITUDE: 1° 14' N
ALTITUDE: 2134 m
RADIATION TERM: Cloud

PERIOD: 1956 to 1962
LONGITUDE: 35° 06' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.5	17.2	17.5	17.3	16.8	15.9	15.5	15.9	15.9	16.3	16.1	16.1
Dew Point(°C)	10.3	9.3	11.8	12.9	13.5	12.7	13.2	13.2	12.6	12.9	12.2	11.2
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	5.3	4.5	5.3	6.0	5.8	5.4	6.5	6.3	5.7	6.1	6.1	5.2
n/N												
C	0.58	0.63	0.58	0.51	0.53	0.57	0.41	0.47	0.54	0.50	0.50	0.59
U(miles/day)	74	74	59	52	74	74	59	67	67	59	67	81
Eo (mm/day)	4.68	5.43	5.08	4.38	4.22	4.12	3.25	3.76	4.44	4.21	4.10	4.58
Eo (mm/month)	145	153	157	131	131	124	101	117	133	131	123	142
Eo: 90% Lower	123	136	141	115	115	111	85	102	114	115	102	117
Eo: 90% Upper	167	170	173	147	147	137	117	132	152	147	144	167

Eo (mm/annum): 1588
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1588 mm/annum
90% Lower: 1487 " "
90% Upper: 1689 " "

STATION: Kapsabet
LATITUDE: 0° 12' N
ALTITUDE: 2000 m
RADIATION TERM: Cloud

PERIOD: 1947 to 1954
LONGITUDE: 35° 07' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.8	19.4	19.9	18.5	17.9	17.2	16.6	16.7	17.6	18.2	18.3	18.2
Dew Point(°C)	9.9	9.4	11.8	13.0	13.7	13.1	12.7	13.0	12.5	12.6	11.3	11.1
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	3.2	3.2	3.8	4.7	4.4	4.4	4.6	4.6	4.0	4.1	4.0	4.1
n/N												
C	0.69	0.69	0.67	0.63	0.65	0.65	0.63	0.63	0.67	0.66	0.67	0.66
U(miles/day)	59	81	96	67	44	44	44	52	59	74	89	81
Eo (mm/day)	5.71	6.23	6.39	5.39	4.90	4.54	4.46	4.76	5.52	5.68	5.71	5.44
Eo (mm/month)	177	176	198	162	152	136	138	148	166	176	171	169
Eo: 90% Lower	154	160	181	146	136	124	119	132	146	157	146	143
Eo: 90% Upper	200	192	215	178	168	148	157	164	186	195	196	195

Eo (mm/annum): 1969
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1969 mm/annum
90% Lower: 1855 " "
90% Upper: 2083 " "

STATION: Kiambu
LATITUDE: 1° 12' S
ALTITUDE: 1731 m
RADIATION TERM: Cloud

PERIOD: 1934 to 1943
LONGITUDE: 36° 49' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.5	20.5	20.5	20.0	18.7	17.3	16.3	16.7	18.4	19.5	19.3	19.1
Dew Point(°C)	12.4	12.7	13.7	15.0	14.7	14.5	11.9	11.9	11.6	12.5	14.1	13.7
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	4.4	5.0	5.7	6.4	6.3	6.7	6.6	6.7	5.8	6.1	6.1	5.4
n/N												
C	0.64	0.60	0.55	0.45	0.47	0.40	0.41	0.40	0.54	0.50	0.50	0.57
U(miles/day)	155	140	126	111	103	89	96	103	111	126	133	126
Eo (mm/day)	6.18	6.29	5.81	4.59	4.17	3.27	3.52	3.78	5.26	5.34	5.02	5.32
Eo (mm/month)	192	178	180	138	129	98	109	117	158	166	151	165
Eo: 90% Lower	168	161	164	123	116	89	93	105	139	147	129	140
Eo: 90% Upper	216	195	196	153	142	107	125	129	177	185	173	190

Eo (mm/annum): 1781
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1781 mm/annum
90% Lower: 1678 " "
90% Upper: 1884 " "

STATION: Kipkabus Downs
LATITUDE: 0° 14' N
ALTITUDE: 2400 m
RADIATION TERM: Cloud

PERIOD: 1953 and 1954
LONGITUDE: 35° 30' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	14.5	15.2	15.8	14.9	14.1	13.4	12.7	12.8	13.3	13.8	13.6	13.9
Dew Point(°C)	6.2	5.2	7.0	10.2	10.4	10.4	9.4	10.1	8.8	8.8	9.3	8.7
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	3.4	2.9	3.9	4.8	3.9	5.2	4.8	5.2	3.2	2.8	4.7	3.5
n/N												
C	0.69	0.70	0.67	0.62	0.67	0.59	0.62	0.59	0.69	0.70	0.63	0.68
U(miles/day)	155	185	185	133	140	81	74	89	111	170	185	170
Eo (mm/day)	5.74	6.52	6.43	5.07	4.80	3.86	4.00	4.12	5.21	5.70	5.06	5.32
Eo (mm/month)	178	183	199	152	149	116	124	128	156	177	152	165
Eo: 90% Lower	155	166	182	136	133	105	107	115	137	158	130	140
Eo: 90% Upper	201	200	216	168	165	127	141	141	175	196	174	190

Eo (mm/annum): 1879
Accuracy: Monthly Eo: 19%
Accuracy: Annual Eo: 15%

Variability : Mean Eo : 1879 mm/annum
90% Lower: 1771 " "
90% Upper: 1987 " "

STATION: Kisumu Met.
LATITUDE: 0° 06' S
ALTITUDE: 1146 m
RADIATION TERM: Sunshine

PERIOD: 1939 to 1962
LONGITUDE: 34° 45' E
DESIGNATION: E.A.M.D.
WIND TER: Anemograph

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.9	24.3	24.2	23.4	22.8	22.3	21.9	22.1	22.3	23.8	23.9	23.7
Dew Point(°C)	14.4	14.6	15.8	17.2	17.2	16.0	15.3	15.2	15.0	14.8	15.0	15.1
Radn.(ly/day)												
n (hours)	8.6	8.7	8.5	7.7	7.8	7.5	6.9	6.9	7.6	7.7	7.3	8.2
Cloud (oktas)												
n/N	0.71	0.72	0.70	0.64	0.65	0.62	0.57	0.57	0.63	0.64	0.60	0.68
C	0.603	0.609	0.598	0.567	0.572	0.556	0.530	0.530	0.561	0.567	0.546	0.588
U(miles/day)	80	83	75	58	50	58	60	70	72	68	63	65
Eo (mm/day)	6.02	6.45	6.29	5.48	5.05	4.76	4.65	5.03	5.50	5.87	5.56	5.67
Eo (mm/month)	187	182	195	164	157	143	144	156	165	182	167	176
Eo: 90% Lower	161	163	176	145	139	129	121	138	143	159	141	147
Eo: 90% Upper	213	201	214	183	175	157	167	174	187	205	193	205

Eo (mm/annum): 2018
Accuracy: Monthly Eo: 11%
Accuracy:Annual Eo: 11%

Variability : Mean Eo : 2018 mm/annum
90% Lower: 1902 " "
90% Upper: 2134 " "

STATION: Kisumu Railway
LATITUDE: 0° 06' S
ALTITUDE: 1140 m
RADIATION TERM: Cloud

PERIOD: 1939
LONGITUDE: 34° 45' E
DESIGNATION: E.A.M.D.
WIND TERM: Kisumu Met.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	22.7	22.9	23.3	22.6	22.6	21.9	21.6	21.6	22.5	23.4	22.8	23.5
Dew Point(°C)	15.9	16.8	17.9	18.1	16.8	17.2	16.4	16.4	16.4	16.5	17.2	16.6
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	4.0	4.4	3.6	4.5	4.0	4.0	4.7	4.0	3.4	4.7	4.4	4.0
n/N												
C	0.67	0.65	0.68	0.64	0.67	0.67	0.63	0.67	0.69	0.63	0.65	0.67
U(miles/day)	80	83	75	58	50	58	60	70	72	68	63	65
Eo (mm/day)	6.18	6.28	6.55	5.79	5.65	5.26	5.08	5.66	6.27	6.18	5.90	6.14
Eo (mm/month)	191	176	203	174	175	158	158	176	188	192	177	190
Eo: 90% Lower	164	157	184	154	155	142	133	156	162	169	149	158
Eo: 90% Upper	218	195	222	194	195	174	183	196	214	215	205	222

Eo (mm/annum): 2158
Accuracy: Monthly Eo: 23%
Accuracy: Annual Eo: 15%

Variability : Mean Eo: 2158 mm/annum
90% Lower: 2033 " "
90% Upper: 2283 " "

STATION: Kitale Airfield
LATITUDE: 1° 00'N
ALTITUDE: 1896 m
RADIATION TERM: Cloud
G.B.R.I. (1966)

PERIOD: 1947 to 1962 and 1966
LONGITUDE: 35° 00' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort
Cup Counter (1966)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.7	19.1	19.4	19.3	18.7	17.7	17.2	17.3	17.7	18.3	18.0	18.1
Dew Point(°C)	9.9	9.8	11.2	13.4	14.2	13.4	13.2	13.2	13.0	12.7	12.2	11.4
Radn.(ly/day)					520	453	427	439	480			
n (hours)												
Cloud (oktas)	5.1	5.1	5.9	6.3	5.9	5.5	6.3	5.8	5.4	5.5	5.6	5.2
n/N												
C	0.60	0.60	0.53	0.47	0.53	0.57	0.47	0.54	0.57	0.57	0.56	0.59
U(miles/day)	111	111	103	103	103	96	96	111	111	111	111	111
Eo (mm/day)	5.52	5.91	5.48	4.77	4.77	4.27	4.06	4.35	4.90	5.35	5.07	5.13
Eo (mm/month)	171	167	170	143	148	128	126	135	147	166	152	159
Eo: 90% Lower	145	148	153	126	130	115	106	119	127	144	127	131
Eo: 90% Upper	197	186	187	160	166	141	146	151	167	188	177	187

Eo (mm/annum): 1812
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1812 mm/annum
90% Lower: 1696 " "
90% Upper: 1928 " "

STATION: Kitale, D.C. PERIOD: 1935 to 1946

LATITUDE: 1° 01' N LONGITUDE: 35° 00' E

ALTITUDE: 1900 m DESIGNATION: E.A.M.D.

RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.4	19.9	19.9	20.1	18.7	17.9	17.3	17.3	17.8	18.5	18.5	18.6
Dew Point(°C)	9.4	10.1	11.8	14.0	14.4	13.6	13.5	13.5	12.8	11.9	12.5	10.9
Radn. (ly/day)												
n (hours)												
Cloud (oktas)	3.6	4.3	4.4	5.1	5.0	5.0	6.0	5.2	4.6	4.8	5.1	4.7
n/N												
C	0.68	0.65	0.65	0.60	0.61	0.61	0.52	0.59	0.63	0.62	0.60	0.63
U(miles/day)	82	80	90	85	66	67	71	75	72	68	67	71
Eo (mm/day)	5.82	6.03	6.19	5.57	4.88	4.64	4.24	4.75	5.36	5.46	5.16	5.27
Eo (mm/month)	180	170	192	167	151	139	131	147	161	169	155	163
Eo: 90% Lower	153	151	173	147	133	124	110	129	138	147	129	134
Eo: 90% Upper	207	189	211	187	169	154	152	165	184	191	181	192

Eo (mm/annum): 1925 Variability : Mean Eo : 1925 mm/annum

Accuracy: Monthly Eo: 15% 90% Lower: 1802 " "

Accuracy: Annual Eo: 14% 90% Upper: 2048 " "

STATION: Kitui, Agr. Off. PERIOD: 1948 to 1954

LATITUDE: 1° 22' S LONGITUDE: 38° 01' E

ALTITUDE: 1180 m DESIGNATION: E.A.M.D.

RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	21.9	23.2	23.6	22.7	21.6	20.2	19.2	19.7	20.7	21.9	21.8	21.5
Dew Point(°C)	16.4	15.9	16.4	17.6	16.7	14.2	13.1	12.8	13.1	14.1	16.8	17.4
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.4	4.5	5.2	5.6	5.3	5.3	5.9	6.0	5.1	5.1	5.9	5.5
n/N												
C	0.65	0.64	0.59	0.56	0.59	0.59	0.53	0.52	0.60	0.60	0.53	0.57
U(miles/day)	126	133	133	118	140	140	148	163	148	170	140	148
Eo (mm/day)	6.11	6.75	6.44	5.63	5.41	5.06	4.80	5.23	6.10	6.54	5.42	5.40
Eo (mm/month)	189	191	200	169	168	152	149	162	183	203	163	167
Eo: 90% Lower	166	174	184	153	152	139	130	146	162	182	141	144
Eo: 90% Upper	212	208	216	185	184	165	168	178	204	224	185	190

Eo (mm/annum): 2096 Variability : Mean Eo : 2096 mm/annum

Accuracy: Monthly Eo: 15% 90% Lower: 1989 " "

Accuracy: Annual Eo: 14% 90% Upper: 2203 " "

STATION: Lamu
LATITUDE: 2° 16' S
ALTITUDE: 30 m
RADIATION TERM: Sunshine
PERIOD: 1959 to 1966
LONGITUDE: 40° 54' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	26.9	27.3	28.1	28.1	26.6	25.8	25.1	25.1	25.5	26.5	27.2	27.3
Dew Point(°C)	23.5	23.7	24.6	25.3	24.0	22.7	21.7	21.7	21.9	22.9	23.8	24.0
Radn.(ly/day)												
n (hours)	9.3	9.3	9.2	7.9	8.0	8.0	8.0	9.2	8.9	9.4	9.4	9.2
Cloud (oktas)												
n/N	0.77	0.76	0.76	0.65	0.67	0.66	0.67	0.76	0.74	0.77	0.77	0.75
C	0.64	0.63	0.63	0.57	0.58	0.58	0.58	0.63	0.62	0.64	0.64	0.62
U(miles/day)	192	148	126	118	133	155	148	155	148	148	140	155
Eo (mm/day)	7.05	7.05	7.10	6.08	5.58	5.39	5.34	6.05	6.42	6.89	6.87	6.61
Eo (mm/month)	219	199	220	182	173	162	166	188	193	214	206	205
Eo: 90% Lower	193	183	203	166	157	149	146	170	172	193	180	178
Eo: 90% Upper	245	215	237	198	189	175	186	206	214	235	232	232

Eo (mm/annum): 2327
Accuracy: Monthly Eo: 11%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 2327 mm/annum
90% Lower: 2208 " "
90% Upper: 2446 " "

STATION: Lodwar
LATITUDE: 3° 07' N
ALTITUDE: 506 m
RADIATION TERM: Sunshine
G.B.R.I. (1966)
PERIOD: 1957 to 1963 & 1966
LONGITUDE: 35° 37' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.9	29.9	30.3	29.7	29.8	29.1	28.3	28.5	29.4	29.9	29.1	28.7
Dew Point(°C)	15.0	15.0	17.0	19.1	19.0	17.8	17.1	17.1	16.5	16.5	16.7	16.7
Radn.(ly/day)	557	533	535	476	572	540	518	525	557	547	507	528
n (hours)	10.3	9.9	9.1	9.3	9.9	9.9	9.0	10.0	10.7	10.2	9.4	10.0
Cloud (oktas)												
n/N	0.84	0.81	0.75	0.78	0.83	0.83	0.76	0.83	0.88	0.84	0.76	0.81
C	Interpreted in terms of 1966 radiation data											
U(miles/day)	140	150	160	150	150	140	130	150	160	170	150	130
Eo (mm/day)	7.32	7.43	7.48	6.80	7.58	7.37	7.13	7.29	7.96	8.23	7.33	7.23
Eo (mm/month)	227	210	232	204	235	221	221	226	239	255	220	224
Eo: 90% Lower	201	193	214	185	213	203	195	205	213	229	192	194
Eo: 90% Upper	253	227	250	223	257	239	247	247	265	281	248	254

Eo (mm/annum): 2714
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2714 mm/annum
90% Lower: 2610 " "
90% Upper: 2818 " "

STATION: Loitoketok, D.C. PERIOD: 1940 to 1943

LATITUDE: 2° 56' S LONGITUDE: 37° 31' E

ALTITUDE: 1980 m DESIGNATION: E.A.M.D.

RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.3	18.2	18.4	17.4	16.6	15.7	14.4	14.7	15.7	17.1	17.3	17.4
Dew Point(°C)	15.4	15.6	15.6	15.9	15.2	13.5	12.9	12.8	13.4	15.3	15.8	16.2
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.7	4.2	4.8	5.5	5.0	5.1	4.7	4.9	3.8	3.9	5.1	4.5
n/N												
C	0.68	0.66	0.62	0.57	0.61	0.60	0.63	0.62	0.67	0.67	0.60	0.64
U(miles/day)	62	49	50	60	59	69	67	72	82	87	62	57
Eo (mm/day)	5.55	5.57	5.27	4.45	4.17	3.91	3.86	4.26	5.04	5.37	4.84	4.97
Eo (mm/month)	172	157	163	134	129	117	120	132	151	166	145	154
Eo: 90% Lower	150	141	149	121	116	106	103	119	133	147	124	131
Eo: 90% Upper	194	173	177	147	142	128	137	145	169	185	166	177

Eo (mm/annum): 1740 Variability : Mean Eo : 1740 mm/annum

Accuracy: Monthly Eo: 16% 90% Lower: 1662 " "

Accuracy: Annual Eo: 14% 90% Upper: 1818 " "

STATION: Lokitaung PERIOD: 1946 to 1954

LATITUDE: 4° 15' N LONGITUDE: 35° 45' E

ALTITUDE: 730 m DESIGNATION: E.A.M.D.

RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.1	28.4	28.2	26.3	26.8	26.7	25.9	25.9	27.1	26.9	27.1	27.1
Dew Point(°C)	18.4	19.6	19.8	19.8	19.4	18.2	17.9	17.7	17.7	18.8	19.8	19.1
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.9	3.1	3.8	4.4	4.1	3.7	4.1	3.8	3.5	4.0	3.9	3.5
n/N												
C	0.70	0.70	0.67	0.65	0.66	0.68	0.66	0.67	0.68	0.67	0.67	0.68
U(miles/day)	200	229	214	155	177	207	207	200	222	222	229	214
Eo (mm/day)	8.23	9.01	8.72	7.36	7.48	7.82	7.55	7.82	8.71	8.30	7.95	7.72
Eo (mm/month)	255	255	270	221	232	235	234	242	261	257	238	239
Eo: 90% Lower	226	233	249	201	211	216	205	219	233	231	208	207
Eo: 90% Upper	284	277	291	241	253	254	263	265	289	283	268	271

Eo (mm/annum): 2939 Variability : Mean Eo : 2939 mm/annum

Accuracy: Monthly Eo: 15% 90% Lower: 2826 " "

Accuracy: Annual Eo: 14% 90% Upper: 3052 " "

STATION: Machakos School
LATITUDE: 1° 31' S
ALTITUDE: 1680 m
RADIATION TERM: Cloud

PERIOD: 1939 to 1941 & 1946 to 1952
LONGITUDE: 37° 17' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	20.4	20.8	20.7	20.0	19.1	18.1	17.1	17.5	19.0	19.8	19.8	19.6
Dew Point(°C)	15.2	15.1	16.1	16.7	15.9	13.7	13.2	13.0	13.2	14.3	15.8	15.6
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.7	3.9	4.7	5.4	5.5	5.4	5.6	5.7	4.5	4.6	5.4	5.1
n/N												
C	0.68	0.67	0.63	0.58	0.57	0.58	0.56	0.55	0.64	0.63	0.58	0.60
U(miles/day)	111	74	89	81	89	81	89	96	96	103	96	118
Eo (mm/day)	6.12	6.15	5.87	5.04	4.51	4.30	4.12	4.50	5.63	5.82	5.26	5.37
Eo (mm/month)	190	174	182	151	140	129	128	140	169	180	158	166
Eo: 90% Lower	166	158	166	135	125	117	110	125	148	160	135	141
Eo: 90% Upper	214	190	198	167	155	141	146	155	190	200	181	191

Eo (mm/annum): 1907
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1907 mm/annum
90% Lower: 1797 " "
90% Upper: 2017 " "

STATION: Magadi
LATITUDE: 1° 53' S
ALTITUDE: 613 m
RADIATION TERM: Cloud

PERIOD: 1943 to 1962
LONGITUDE: 36° 17' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	30.3	30.7	30.7	29.1	28.1	27.5	27.1	27.7	28.9	30.1	29.6	29.3
Dew Point(°C)	15.6	15.3	16.6	18.4	17.9	15.3	13.9	14.0	14.5	14.9	16.6	16.6
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.8	3.4	4.6	5.3	5.1	4.4	4.4	4.6	4.1	4.4	5.0	4.4
n/N												
C	0.66	0.68	0.62	0.58	0.60	0.64	0.64	0.62	0.65	0.64	0.60	0.64
U(miles/day)	67	81	96	74	67	74	74	74	81	81	89	74
Eo (mm/day)	7.42	8.02	7.95	6.70	6.26	6.16	6.31	6.57	7.44	7.68	7.28	7.20
Eo (mm/month)	230	227	246	201	194	185	196	204	223	238	218	223
Eo: 90% Lower	200	206	225	181	174	168	169	182	196	211	186	189
Eo: 90% Upper	260	248	267	221	214	202	223	226	250	265	250	257

Eo (mm/annum): 2585
Accuracy: Monthly Eo: 14%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 2585 mm/annum
90% Lower: 2453 " "
90% Upper: 2717 " "

STATION: Makindu
LATITUDE: 2° 17' S
ALTITUDE: 998 m
RADIATION TERM: Cloud

PERIOD: 1938 to 1962
LONGITUDE: 37° 50' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.2	24.5	24.7	24.0	22.7	21.1	20.1	20.5	21.9	23.3	23.3	22.6
Dew Point(°C)	16.7	16.1	16.9	17.6	16.8	14.4	13.1	13.0	13.2	14.7	16.8	17.7
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	5.8	5.5	6.0	6.1	6.0	5.8	6.1	6.0	5.2	5.6	6.3	6.3
n/N												
C	0.54	0.57	0.51	0.50	0.51	0.54	0.50	0.51	0.58	0.56	0.47	0.47
U(miles/day)	96	103	96	89	96	89	96	103	111	111	89	89
Eo (mm/day)	5.63	6.35	5.86	5.34	4.86	4.63	4.47	4.93	5.96	6.17	5.12	4.82
Eo (mm/month)	175	179	182	160	151	139	139	153	179	191	154	149
Eo: 90% Lower	153	163	167	144	136	127	121	140	158	171	133	128
Eo: 90% Upper	197	195	197	176	166	151	157	166	200	211	175	170

Eo (mm/annum): 1951
Accuracy: Monthly Eo 14%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1951 mm/annum
90% Lower: 1851 " "
90% Upper: 2051 " "

STATION: Malindi
LATITUDE: 3° 14' S
ALTITUDE: 20 m
RADIATION TERM: Sunshine

PERIOD: 1964 to 1966
LONGITUDE: 40° 06' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	26.7	27.2	28.1	27.9	26.4	25.6	24.9	25.1	25.5	26.1	26.9	27.2
Dew Point(°C)	23.0	23.3	24.3	24.1	23.5	22.6	21.9	21.7	21.9	22.9	23.8	23.9
Radn.(ly/day)												
n (hours)	9.4	9.5	9.1	7.7	7.7	7.7	7.5	8.2	8.9	9.0	9.2	9.3
Cloud (oktas)												
n/N	0.77	0.78	0.75	0.64	0.64	0.65	0.63	0.68	0.74	0.74	0.75	0.76
C	0.64	0.64	0.62	0.57	0.57	0.57	0.56	0.59	0.62	0.62	0.62	0.63
U(miles/day)	126	118	118	126	133	148	140	133	140	126	103	111
Eo (mm/day)	6.79	6.96	6.92	6.21	5.51	5.20	5.03	5.63	6.37	6.52	6.51	6.60
Eo (mm/month)	210	197	215	186	171	156	156	175	191	202	195	205
Eo: 90% Lower	186	181	199	169	155	144	137	159	170	182	170	178
Eo: 90% Upper	234	213	231	203	187	168	175	191	212	222	220	232

Eo (mm/annum): 2259
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 2259 mm/annum
90% Lower: 2143 " "
90% Upper: 2375 " "

STATION: Mandera
LATITUDE: 3° 57' N
ALTITUDE: 331 m
RADIATION TERM: Cloud

PERIOD: 1936 to 1962
LONGITUDE: 41° 52' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.9	29.9	31.1	29.9	29.1	28.6	27.9	28.1	28.9	28.7	28.4	28.6
Dew Point(°C)	17.1	17.8	19.4	21.3	20.7	18.5	17.5	17.0	17.7	20.0	20.5	19.2
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.2	2.0	3.3	5.2	5.4	5.1	5.6	5.2	4.5	5.5	5.1	3.5
n/N												
C	0.71	0.71	0.68	0.59	0.57	0.60	0.56	0.59	0.63	0.57	0.60	0.67
U(miles/day)	103	111	96	74	111	155	163	155	133	81	74	96
Eo (mm/day)	7.53	8.29	8.30	6.99	6.87	7.40	7.20	7.55	7.92	6.62	6.45	6.92
Eo (mm/month)	233	234	257	210	213	222	223	234	238	205	193	215
Eo: 90% Lower	206	215	237	191	194	204	196	212	212	185	168	186
Eo: 90% Upper	260	253	277	229	232	240	250	256	264	225	218	244

Eo (mm/annum): 2677
Accuracy: Monthly Eo: 14%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 2677 mm/annum
90% Lower: 2540 " "
90% Upper: 2814 " "

STATION: Maralal
LATITUDE: 1° 05' N
ALTITUDE: 1950 m
RADIATION TERM: Cloud

PERIOD: 1946 to 1954
LONGITUDE: 36° 42' E
DESIGNATION: E.A.M.D.
WIND TERM Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.0	16.7	17.4	17.7	17.1	15.8	15.3	15.1	15.3	16.0	16.1	15.7
Dew Point(°C)	10.7	10.9	12.2	13.6	13.1	12.5	12.2	12.4	11.9	12.9	12.7	12.5
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.4	2.5	4.0	4.9	4.0	4.4	5.1	5.1	3.7	4.2	5.1	4.0
n/N												
C	0.71	0.71	0.67	0.62	0.67	0.65	0.60	0.60	0.68	0.66	0.60	0.67
U(miles/day)	52	59	67	37	37	37	22	30	30	44	59	59
Eo (mm/day)	5.18	5.64	5.58	5.04	4.88	4.41	4.18	4.25	5.02	5.05	4.63	4.84
Eo (mm/month)	161	159	173	151	151	132	130	132	151	157	139	150
Eo: 90% Lower	144	147	161	139	138	122	115	120	135	142	123	131
Eo: 90% Upper	178	171	185	163	164	142	145	144	167	172	155	169

Eo (mm/annum): 1786
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1786 mm/annum
90% Lower: 1706 " "
90% Upper: 1866 " "

STATION: Marsabit
LATITUDE: 2° 20' N
ALTITUDE: 1360 m
RADIATION TERM: Cloud

PERIOD: 1939 to 1941 and 1946 to 1955
LONGITUDE: 37° 59' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	20.7	21.3	21.2	20.6	20.3	19.4	18.6	18.3	19.1	19.9	19.8	19.8
Dew Point(°C)	16.4	17.2	17.8	18.1	17.6	15.9	14.8	14.7	14.9	15.9	16.8	17.0
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.2	4.6	5.5	6.3	5.4	4.6	4.8	4.9	4.4	5.2	6.1	5.5
n/N												
C	0.66	0.63	0.57	0.48	0.58	0.63	0.62	0.62	0.65	0.59	0.50	0.57
U(miles/day)	126	133	155	140	133	133	118	133	133	118	103	111
Eo (mm/day)	5.69	5.93	5.63	4.61	5.01	5.11	4.98	5.21	5.77	5.42	4.45	4.75
Eo (mm/month)	176	168	175	138	155	153	154	162	173	168	134	147
Eo: 90% Lower	156	154	162	126	140	141	135	147	154	151	117	128
Eo: 90% Upper	196	182	188	150	170	165	173	177	192	185	151	166

Eo (mm/annum): 1903
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1903 mm/annum
90% Lower: 1806 " "
90% Upper: 2000 " "

STATION: Masara Mine
LATITUDE: 1° 01' S
ALTITUDE: 1200 m
RADIATION TERM: Cloud

PERIOD: 1939 to 1941
LONGITUDE: 34° 15' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	23.4	23.6	23.6	23.2	22.9	22.3	21.8	22.3	23.3	24.1	22.9	23.4
Dew Point(°C)	17.3	17.6	18.2	19.0	18.7	17.4	16.2	16.1	15.9	16.5	17.8	17.6
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.1	4.4	4.8	5.4	4.5	4.2	4.2	4.2	3.8	4.7	5.0	4.3
n/N												
C	0.66	0.65	0.62	0.58	0.64	0.66	0.66	0.66	0.67	0.63	0.61	0.65
U(miles/day)	85	85	75	60	71	72	73	81	93	77	69	57
Eo (mm/day)	6.22	6.50	6.15	5.44	5.52	5.22	5.31	5.79	6.54	6.44	5.74	5.96
Eo (mm/month)	193	184	191	163	171	157	165	179	196	200	172	185
Eo: 90% Lower	164	163	172	144	150	141	139	157	169	174	144	152
Eo: 90% Upper	222	205	210	182	192	173	191	201	223	226	200	218

Eo (mm/annum): 2156
Accuracy: Monthly Eo: 17%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 2156 mm/annum
90% Lower: 2013 " "
90% Upper: 2299 " "

STATION: Molo, Pyrethrum
LATITUDE: 0° 14' S
ALTITUDE: 2500 m
RADIATION TERM: Sunshine
PERIOD: 1953 to 1962
LONGITUDE: 35° 44' E
DESIGNATION: E.A.M.D.
WIND TERM: Estimated

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	14.1	14.1	14.8	14.7	14.3	13.2	12.6	12.9	13.3	13.7	13.7	13.8
Dew Point(°C)	8.0	7.7	8.8	10.8	11.1	10.2	10.0	10.4	9.8	9.5	10.1	9.4
Radn.(ly/day)												
n (hours)	8.1	8.7	8.1	6.9	7.4	7.3	6.1	5.4	6.6	7.2	6.5	7.6
Cloud (oktas)												
n/N	0.67	0.72	0.67	0.57	0.61	0.60	0.50	0.45	0.54	0.59	0.54	0.63
C	0.582	0.609	0.582	0.530	0.551	0.546	0.493	0.467	0.514	0.540	0.514	0.561
U(miles/day)	120	125	115	110	110	100	120	115	125	110	95	125
Eo (mm/day)	4.82	5.21	5.13	4.44	4.10	3.68	3.50	3.54	4.23	4.50	4.10	4.43
Eo (mm/month)	149	147	159	133	127	110	108	110	127	140	123	137
Eo: 90% Lower	126	130	142	117	111	98	89	96	108	121	101	112
Eo: 90% Upper	172	164	176	149	143	122	127	124	146	159	145	162

Eo (mm/annum); 1570
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1570 mm/annum
90% Lower: 1470 " "
90% Upper: 1670 " "

STATION: Mombasa Airport
LATITUDE: 4° 02' S
ALTITUDE: 55 m
RADIATION TERM: Sunshine
G.B.R.I. (1963 to 1966)
PERIOD: 1949 to 1966
LONGITUDE: 39° 37' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort
Cup Counter (1963 to 1965)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	27.7	28.0	28.5	27.7	26.0	25.1	24.1	24.3	25.1	26.0	26.9	27.5
Dew Point(°C)	22.6	22.8	23.7	23.7	22.9	21.3	20.5	20.6	21.0	21.9	23.1	23.3
Radn.(ly/day)	550	573	561	461	397	403	398	440	506	536	572	552
n (hours)	8.2	9.0	9.1	7.7	6.5	7.7	6.8	8.0	8.5	8.8	9.2	8.7
Cloud (oktas)												
n/N	0.67	0.73	0.75	0.64	0.54	0.65	0.57	0.67	0.70	0.72	0.75	0.71
C	0.582	0.614	0.624	0.567	0.514	0.572	0.530	0.582	0.598	0.609	0.624	0.603
U(miles/day)	123	127	125	146	150	153	146	141	154	134	114	106
Eo (mm/day)	6.81	7.22	7.13	6.00	4.90	4.93	4.65	5.23	6.03	6.39	6.67	6.58
Eo (mm/month)	211	204	221	180	152	148	144	162	181	198	200	204
Eo: 90% Lower	187	188	204	164	140	136	126	147	162	179	174	177
Eo: 90% Upper	235	220	238	196	164	160	162	177	200	217	226	231

Eo (mm/annum): 2205
Accuracy: Monthly Eo: 9%
Accuracy: Annual Eo: 8%

Variability : Mean Eo : 2205 mm/annum
90% Lower: 2092 " "
90% Upper: 2318 " "

STATION: Mombasa Town
LATITUDE: 4° 03' S
ALTITUDE: 16 m
RADIATION TERM: Cloud

PERIOD: 1936 to 1944
LONGITUDE: 39° 39' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	27.9	28.5	28.9	27.9	26.2	25.5	24.7	24.7	25.2	26.5	27.3	27.7
Dew Point(°C)	23.1	23.3	24.1	24.2	23.2	21.9	21.1	21.2	21.5	22.4	23.5	23.9
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	5.3	4.8	4.9	5.6	6.8	6.1	6.4	6.4	5.7	5.5	5.0	5.6
n/N												
C	0.58	0.61	0.61	0.56	0.38	0.50	0.45	0.45	0.55	0.57	0.60	0.56
U(miles/day)	118	103	89	81	89	111	103	103	103	103	89	96
Eo (mm/day)	6.64	7.08	6.97	5.87	3.85	4.57	4.17	4.43	5.63	6.16	6.53	6.18
Eo (mm/month)	206	200	216	176	119	137	129	137	169	191	196	192
Eo: 90% Lower	182	184	199	161	107	126	113	125	151	172	171	166
Eo: 90% Upper	230	216	233	191	131	148	145	149	187	210	221	218

Eo (mm/annum) : 2068
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 2068 mm/annum
90% Lower: 1962 " "
90% Upper: 2174 " "

STATION: Moyale
LATITUDE: 3° 32' N
ALTITUDE: 1113 m
RADIATION TERM: Cloud

PERIOD: 1936 to 1962
LONGITUDE: 39° 03' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	24.4	25.0	24.7	22.7	21.2	20.3	19.6	20.1	21.0	21.7	22.3	23.1
Dew Point(°C)	12.6	12.5	15.5	17.9	17.5	15.1	14.0	13.9	14.0	16.1	16.2	15.0
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.7	2.8	4.2	5.9	5.9	5.9	6.2	6.0	5.4	5.8	5.1	3.7
n/N												
C	0.70	0.69	0.65	0.53	0.53	0.53	0.48	0.51	0.57	0.54	0.60	0.67
U(miles/day)	133	118	111	89	96	126	133	140	133	96	89	96
Eo (mm/day)	7.10	7.32	7.02	5.35	4.85	4.90	4.66	5.19	5.83	5.33	5.45	5.95
Eo (mm/month)	220	207	218	160	150	147	144	161	175	165	164	184
Eo: 90% Lower	194	190	201	145	136	135	127	146	156	149	143	159
Eo: 90% Upper	246	224	235	175	164	159	161	176	194	181	185	209

Eo (mm/annum): 2095
Accuracy: Monthly Eo: 14%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 2095 mm/annum
90% Lower: 1988 " "
90% Upper: 2202 " "

STATION: Nairobi Airport
LATITUDE: 1° 19' S
ALTITUDE: 1624 m
RADIATION TERM: Sunshine
PERIOD: 1960 to 1966
LONGITUDE: 36° 55' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.9	20.5	21.0	20.6	19.7	18.3	17.1	17.6	18.7	19.7	19.5	19.5
Dew Point(°C)	13.8	12.9	14.5	15.4	14.9	13.1	11.9	12.6	13.1	13.5	15.0	15.0
Radn.(ly/day)												
n (hours)	9.5	10.0	8.7	7.2	6.4	6.1	4.5	4.3	5.6	7.0	7.2	8.0
Cloud (oktas)												
n/N	0.79	0.83	0.72	0.60	0.53	0.51	0.37	0.35	0.46	0.57	0.59	0.66
C	0.65	0.67	0.61	0.55	0.51	0.50	0.43	0.41	0.47	0.53	0.54	0.58
U(miles/day)	126	133	140	103	81	81	89	74	74	96	118	126
Eo (mm/day)	6.00	6.59	6.27	5.19	4.41	4.06	3.71	3.78	4.47	5.24	5.06	5.23
Eo (mm/month)	186	186	194	156	137	122	115	117	134	162	152	162
Eo: 90% Lower	162	169	178	140	123	111	99	105	118	144	130	138
Eo: 90% Upper	210	203	210	172	151	133	131	129	150	180	174	186

Eo (mm/annum): 1823
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1823 mm/annum
90% Lower: 1718 " "
90% Upper: 1928 " "

STATION: Nairobi, Eastleigh
LATITUDE: 1° 17' S
ALTITUDE: 1634 m
RADIATION TERM: Cloud
PERIOD: 1942 to 1957
LONGITUDE: 36° 50' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	19.9	20.5	20.9	20.5	19.6	18.3	17.1	17.5	19.0	20.1	19.6	19.4
Dew Point(°C)	12.1	11.6	13.0	14.6	14.3	12.6	11.5	11.5	11.4	11.8	13.8	13.6
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.2	4.1	5.5	6.4	6.3	6.3	6.6	6.7	6.0	5.9	6.3	5.8
n/N												
C	0.65	0.65	0.57	0.45	0.47	0.47	0.41	0.40	0.51	0.53	0.47	0.54
U(miles/day)	118	126	126	103	81	81	81	81	81	111	133	103
Eo (mm/day)	6.07	6.51	6.02	4.68	4.23	4.00	3.64	3.86	4.92	5.58	4.89	5.47
Eo (mm/month)	188	184	187	140	131	120	113	120	148	173	147	170
Eo: 90% Lower	164	167	171	126	118	109	97	108	130	154	126	144
Eo: 90% Upper	212	201	203	154	144	131	129	132	166	192	168	196

Eo (mm/annum): 1821
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1821 mm/annum
90% Lower: 1716 " "
90% Upper: 1926 " "

STATION: Nairobi Railway
LATITUDE: 1° 16' S
ALTITUDE: 1675 m
RADIATION TERM: Cloud
PERIOD: 1936 to 1948
LONGITUDE: 36° 50' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp,(°C)	20.2	21.2	21.2	20.7	19.6	18.2	17.2	17.6	19.1	20.2	20.1	19.8
Dew Point(°C)	12.2	12.1	13.9	15.1	14.8	13.2	11.9	12.0	11.7	12.2	13.8	13.6
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.4	3.8	4.7	5.6	5.6	6.0	6.4	6.2	5.1	5.1	5.3	4.3
n/N												
C	0.69	0.67	0.63	0.56	0.56	0.52	0.47	0.49	0.60	0.60	0.59	0.65
U(miles/day)	109	120	95	87	72	75	72	75	87	108	113	108
Eo (mm/day)	6.29	6.69	6.20	5.24	4.65	4.08	3.83	4.25	5.53	5.92	5.63	5.79
Eo (mm/month)	195	189	192	157	144	122	119	132	166	184	169	179
Eo: 90% Lower	170	171	176	141	128	111	102	119	146	163	145	152
Eo: 90% Upper	220	207	208	173	160	133	136	145	186	205	193	206

Eo (mm/annum): 1948
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1948 mm/annum
90% Lower: 1836 " "
90% Upper: 2060 " "

STATION: Nairobi, Wilson
LATITUDE: 1° 19' S
ALTITUDE: 1680 m
RADIATION TERM: Cloud
PERIOD: 1962 to 1965
LONGITUDE: 36° 48' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.7	19.7	20.6	19.8	18.5	17.0	15.9	16.6	18.2	19.7	19.3	19.0
Dew Point(°C)	13.1	11.3	13.5	14.8	14.3	12.6	11.4	11.0	11.2	12.2	13.5	12.9
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.9	4.0	6.0	6.8	6.5	6.0	6.6	6.7	6.6	6.8	6.6	5.8
n/N												
C	0.62	0.67	0.52	0.39	0.45	0.52	0.43	0.41	0.43	0.39	0.43	0.54
U(miles/day)	118	118	133	111	74	67	74	81	96	111	140	148
Eo (mm/day)	5.52	6.39	5.65	4.18	3.85	3.89	3.44	3.75	4.45	4.60	4.68	5.26
Eo (mm/month)	171	181	175	125	119	117	107	116	134	143	140	163
Eo: 90% Lower	149	164	160	112	107	106	92	104	118	127	120	138
Eo: 90% Upper	193	198	190	138	131	128	122	128	150	159	160	188

Eo (mm/annum): 1691
Accuracy: Monthly Eo: 16%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1691 mm/annum
90% Lower: 1594 " "
90% Upper: 1788 " "

STATION: Naivasha
LATITUDE: 0° 43' S
ALTITUDE: 1900 m
RADIATION TERM: Cloud

PERIOD: 1938 to 1954
LONGITUDE: 36° 26' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.9	18.3	18.5	18.3	17.5	16.5	15.9	16.1	16.7	17.3	17.0	17.3
Dew Point(°C)	7.5	7.5	9.5	12.3	12.7	11.3	10.3	10.3	10.0	10.0	11.0	9.7
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.7	4.6	5.4	6.2	5.8	5.8	6.0	6.0	5.2	5.5	5.8	5.2
n/N												
C	0.62	0.62	0.58	0.48	0.54	0.54	0.52	0.51	0.59	0.57	0.54	0.59
U(miles/day)	67	67	67	67	74	74	74	81	81	81	67	67
Eo (mm/day)	5.38	5.65	5.46	4.47	4.42	4.11	4.05	4.30	5.09	5.15	4.65	4.92
Eo (mm/month)	167	160	169	134	137	123	126	133	153	160	139	153
Eo: 90% Lower	143	143	153	118	121	111	107	117	132	141	116	127
Eo: 90% Upper	191	177	185	150	153	135	145	149	174	179	162	179

Eo (mm/annum): 1754
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability : Mean Eo : 1754 mm/annum
90% Lower: 1653 " "
90% Upper: 1855 " "

STATION: Nakuru Airfield
LATITUDE: 0° 18' S
ALTITUDE: 1890 m
RADIATION TERM: Sunshine
G.B.R.I.(1966)

PERIOD: 1959 to 1963 & 1966
LONGITUDE: 36° 09' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.3	17.4	18.0	17.6	17.5	16.3	16.2	16.3	16.1	16.5	16.5	16.7
Dew Point(°C)	10.1	9.3	10.8	13.0	13.3	11.8	11.2	11.6	11.2	11.6	12.3	11.5
Radn.(ly/day)					524	492	465	473	484			
n (hours)	7.9	8.3	7.2	6.0	6.7	7.9	7.5	6.9	7.2	6.3	5.5	7.5
Cloud (oktas)												
n/N	0.65	0.69	0.59	0.50	0.55	0.65	0.62	0.57	0.60	0.52	0.45	0.62
C	0.572	0.593	0.540	0.493	0.519	0.572	0.556	0.530	0.546	0.504	0.467	0.556
U(miles/day)	89	103	96	81	103	103	126	118	126	96	67	96
Eo (mm/day)	4.42	5.52	5.26	4.43	4.48	4.40	4.45	4.55	4.83	4.58	4.03	4.71
Eo (mm/month)	137	156	163	133	139	132	138	141	145	142	121	146
Eo: 90% Lower	118	140	147	117	123	119	116	125	126	125	102	122
Eo: 90% Upper	156	172	179	149	155	145	160	157	164	159	140	170

Eo (mm/annum): 1693
Accuracy: Monthly Eo: 12%
Accuracy: Annual Eo: 11%

Variability : Mean Eo : 1693 mm/annum
90% Lower: 1596 " "
90% Upper: 1790 " "

STATION: Nakuru, D.C. PERIOD: 1931 to 1955
LATITUDE: 0° 17' S LONGITUDE: 36° 04' E
ALTITUDE: 1836 m DESIGNATION: E.A.M.D.
RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.5	19.3	19.5	19.1	18.5	17.8	17.3	17.3	17.5	17.7	17.7	17.9
Dew Point(°C)	8.8	8.6	10.1	12.6	13.3	12.3	12.1	12.2	11.5	11.4	11.8	10.8
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	4.5	4.6	5.1	6.0	5.4	5.3	5.7	5.5	5.0	5.4	5.8	5.2
n/N												
C	0.63	0.62	0.60	0.51	0.57	0.58	0.55	0.57	0.60	0.57	0.54	0.59
U(miles/day)	96	96	81	81	67	59	59	67	74	74	81	96
Eo (mm/day)	5.72	6.08	5.81	4.88	4.66	4.38	4.22	4.62	5.22	5.08	4.81	5.16
Eo (mm/month)	177	172	180	146	144	131	131	143	157	157	144	160
Eo: 90% Lower	151	154	163	129	128	118	111	127	136	138	121	134
Eo: 90% Upper	203	190	197	163	160	144	151	159	178	176	167	186

Eo (mm/annum): 1842 Variability : Mean Eo : 1842 mm/annum
Accuracy: Monthly Eo: 14% 90% Lower: 1736 " "
Accuracy: Annual Eo: 14% 90% Upper: 1948 " "

STATION: Nanyuki PERIOD: 1940 to 1962
LATITUDE: 0° 01' N LONGITUDE: 37° 04' E
ALTITUDE: 1946 m DESIGNATION: E.A.M.D.
RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	16.1	16.6	17.1	17.0	16.5	15.9	15.5	15.5	15.9	16.1	15.7	15.5
Dew Point(°C)	8.6	8.1	10.0	12.6	12.8	11.2	10.8	10.9	10.4	11.1	11.9	10.9
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	5.1	5.0	5.7	6.4	5.9	5.7	6.1	5.9	5.3	6.0	6.4	5.8
n/N												
C	0.56	0.59	0.53	0.47	0.52	0.54	0.50	0.55	0.59	0.53	0.45	0.52
U(miles/day)	111	118	103	89	96	111	111	103	103	103	89	111
Eo (mm/day)	5.03	5.50	5.11	4.28	4.17	4.18	4.03	4.44	4.99	4.71	3.92	4.34
Eo (mm/month)	156	155	158	128	129	125	125	138	150	146	118	135
Eo: 90% Lower	135	139	143	114	115	113	106	122	131	129	100	113
Eo 90% Upper	177	171	173	142	143	137	144	154	169	163	136	157

Eo (mm/annum): 1663 Variability : Mean Eo : 1663 mm/annum
Accuracy: Monthly Eo: 15% 90% Lower: 1567 " "
Accuracy: Annual Eo: 14% 90% Upper: 1759 " "

STATION: Narok
LATITUDE: 1° 08'S
ALTITUDE: 1890 m
RADIATION TERM: Cloud
G.B.R.I.(1964 to 1966)

PERIOD: 1939 to 1962 and 1964 to 1966
LONGITUDE: 35° 50' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.4	17.3	17.5	17.7	17.0	15.5	14.7	15.2	15.9	16.7	16.6	16.7
Dew Point(°C)	9.9	9.7	11.2	13.3	13.4	11.6	10.3	10.3	10.1	10.2	11.3	11.1
Radn.(ly/day)	497	505	507	455	446	439	401	421	465	478	493	499
n (hours)	8.9	8.4	8.0	6.8	6.1	7.4	6.5	6.5	7.4	7.6	7.6	7.6
Cloud (oktas)	5.2	5.0	5.8	6.6	6.7	6.3	6.4	6.3	5.7	5.8	6.0	5.5
n/N	0.73	0.69	0.66	0.56	0.50	0.62	0.54	0.54	0.61	0.63	0.63	0.62
C (Cloud)	0.59	0.60	0.54	0.41	0.40	0.47	0.45	0.47	0.55	0.54	0.51	0.57
U(miles/day)	96	111	111	126	126	111	118	118	133	140	118	96
Eo (mm/day)	4.81	5.24	5.03	4.23	3.94	3.77	3.61	3.94	4.77	5.06	4.73	4.74
Eo (mm/month)	149	148	156	127	122	113	112	122	143	157	142	147
Eo: 90% Lower	126	132	140	112	107	101	94	107	123	137	119	121
Eo: 90% Upper	172	164	172	142	137	125	130	137	163	177	165	173

Eo (mm/annum): 1638
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 1638 mm/annum
90% Lower: 1533 " "
90% Upper: 1743 " "

STATION: Nyeri, Kagumo
LATITUDE: 0° 29' S
ALTITUDE: 1800 m
RADIATION TERM: Cloud

PERIOD: 1940 to 1946
LONGITUDE: 36° 57' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	18.1	18.6	18.5	18.4	17.7	16.6	14.9	16.1	17.1	18.2	17.3	16.7
Dew Point(°C)	11.9	12.8	13.3	15.0	14.7	13.0	12.3	12.3	12.3	13.7	14.0	13.7
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.5	3.9	4.7	5.2	5.7	6.1	6.9	6.5	5.6	5.4	6.0	5.3
n/N												
C	0.68	0.67	0.63	0.59	0.55	0.50	0.37	0.45	0.56	0.58	0.52	0.59
U(miles/day)	121	113	114	109	109	108	111	104	108	114	94	102
Eo (mm/day)	5.86	6.06	5.78	5.09	4.44	3.93	3.03	3.86	4.93	5.29	4.43	4.67
Eo (mm/month)	182	171	179	153	138	118	94	120	148	164	133	145
Eo: 90% Lower	157	154	163	137	122	106	80	107	129	145	113	122
Eo: 90% Upper	207	188	195	169	154	130	108	133	167	183	153	168

Eo (mm/annum): 1745
Accuracy: Monthly Eo: 15%
Accuracy: Annual Eo: 14%

Variability Mean Eo : 1745 mm/annum
90% Lower: 1645 " "
90% Upper: 1845 " "

STATION: Rumuruti, D.C. PERIOD: 1939 to 1952
LATITUDE: 0° 16' N LONGITUDE: 36° 33' E
ALTITUDE: 1860 m DESIGNATION: E.A.M.D.
RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	17.3	18.0	18.8	18.8	18.2	17.3	16.8	16.7	17.6	18.4	17.8	18.2
Dew Point(°C)	8.7	8.2	10.1	12.3	12.0	10.9	11.0	11.2	10.1	10.3	11.3	10.7
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.9	3.0	3.4	4.3	3.5	3.9	4.2	4.1	3.1	3.8	4.2	3.9
n/N												
C	0.70	0.70	0.69	0.65	0.68	0.67	0.66	0.66	0.70	0.67	0.66	0.67
U(miles/day)	89	103	103	96	89	81	74	81	89	96	96	103
Eo (mm/day)	5.83	6.28	6.33	5.71	5.41	4.98	4.83	5.10	5.92	5.99	5.57	5.73
Eo (mm/month)	181	177	196	171	168	149	150	158	178	186	167	178
Eo: 90% Lower	162	163	182	156	153	137	133	145	160	169	148	155
Eo: 90% Upper	200	191	210	186	183	161	167	171	196	203	186	201

Eo (mm/annum): 2059 Variability : Mean Eo : 2059 mm/annum
Accuracy: Monthly Eo: 15% 90% Lower: 1966 " "
Accuracy: Annual Eo: 14% 90% Upper: 2152 " "

STATION: Thika, Sisal Res. PERIOD: 1942,1943,1946 & 1947
LATITUDE: 1° 01' S LONGITUDE: 37° 06' E
ALTITUDE: 1460 m DESIGNATION: E.A.M.D.
RADIATION TERM: Cloud WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	20.0	20.5	21.1	21.2	20.3	19.1	17.2	18.3	19.5	20.3	19.9	19.3
Dew Point(°C)	12.9	12.6	14.1	15.7	15.4	13.7	12.4	12.9	12.6	12.8	14.5	14.2
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	3.4	3.6	4.9	5.9	5.9	6.3	6.6	6.9	6.0	5.6	6.0	5.0
n/N												
C	0.69	0.68	0.62	0.53	0.53	0.48	0.43	0.37	0.52	0.56	0.52	0.61
U(miles/day)	113	153	126	99	95	92	84	78	95	111	132	114
Eo (mm/day)	6.24	6.83	6.28	5.21	4.68	4.13	3.63	3.68	5.11	5.70	5.18	5.38
Eo (mm/month)	193	193	195	156	145	124	113	114	153	177	155	167
Eo: 90% Lower	167	174	177	139	129	112	97	102	134	156	131	141
Eo: 90% Upper	219	212	213	173	161	136	129	126	172	198	179	193

Eo (mm/annum): 1885 Variability : Mean Eo : 1885 mm/annum
Accuracy: Monthly Eo: 16% 90% Lower: 1776 " "
Accuracy: Annual Eo: 14% 90% Upper: 1994 " "

STATION: Voi
LATITUDE: 3° 24' S
ALTITUDE: 560 m
RADIATION TERM: Cloud
G.B.R.I.(1964 to 1966)

PERIOD: 1938 to 1962 and 1964 to 1966
LONGITUDE: 38° 34' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	26.1	26.9	27.2	25.9	24.9	23.7	22.7	22.7	23.4	24.9	25.7	25.7
Dew Point(°C)	18.4	17.9	18.7	19.3	17.9	15.4	14.4	14.6	15.2	16.2	18.2	19.1
Radn.(ly/day)	479	526	506	451	410	385	350	366	399	427	497	487
n (hours)												
Cloud (oktas)	5.9	5.3	5.7	5.8	6.0	5.6	5.9	6.1	5.7	5.6	5.9	6.1
n/N												
C	0.53	0.58	0.55	0.54	0.51	0.56	0.53	0.50	0.55	0.56	0.53	0.50
U(miles/day)	103	96	81	111	133	148	148	140	140	118	89	81
Eo (mm/day)	5.90	6.62	6.39	5.87	5.35	5.27	5.03	5.23	5.80	6.10	6.07	5.65
Eo (mm/month)	183	187	198	176	166	158	156	162	174	189	182	175
Eo: 90% Lower	162	171	182	160	150	145	137	147	155	170	159	152
Eo: 90% Upper	204	203	214	192	182	171	175	177	193	208	205	198

Eo (mm/annum): 2106
Accuracy: Monthly Eo: 10%
Accuracy: Annual Eo: 9%

Variability : Mean Eo : 2106 mm/annum
90% Lower: 1998 " "
90% Upper: 2214 " "

STATION: Wajir
LATITUDE: 1° 45' N
ALTITUDE: 244 m
RADIATION TERM: Cloud

PERIOD: 1936 to 1962
LONGITUDE: 40° 04' E
DESIGNATION: E.A.M.D.
WIND TERM: Beaufort

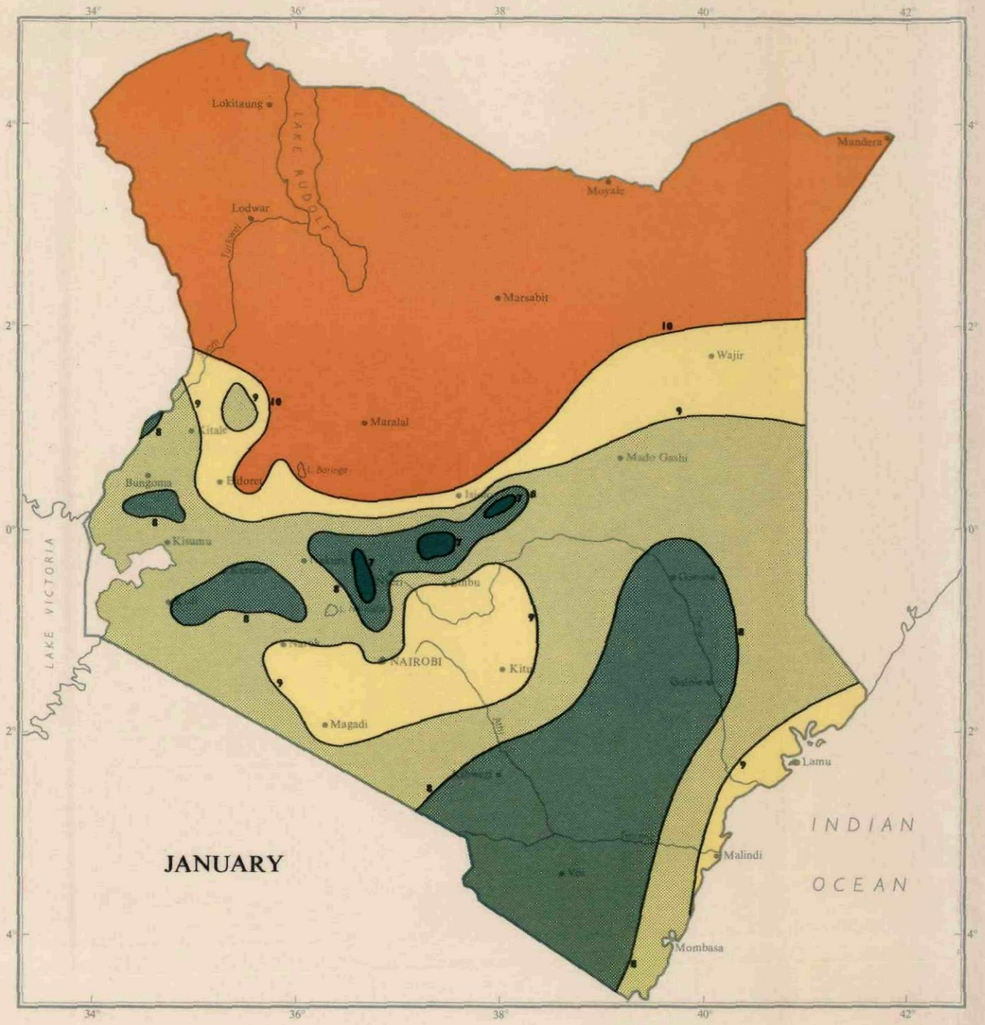
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Air Temp.(°C)	28.7	29.3	29.9	28.9	27.9	26.9	26.1	26.4	27.1	27.7	27.5	27.9
Dew Point(°C)	19.8	20.1	20.9	22.0	21.4	19.9	18.9	18.8	19.4	19.6	21.0	21.2
Radn.(ly/day)												
n (hours)												
Cloud (oktas)	2.9	3.3	4.5	5.5	5.0	4.7	5.0	5.2	4.7	5.4	5.6	4.3
n/N												
C	0.69	0.68	0.63	0.57	0.60	0.62	0.60	0.59	0.62	0.57	0.56	0.64
U(miles/day)	111	118	103	111	126	148	148	133	133	103	111	111
Eo (mm/day)	7.53	7.97	7.67	6.82	6.60	6.62	6.47	6.63	7.09	6.68	6.25	6.71
Eo (mm/month)	233	225	238	205	205	199	201	206	213	207	187	208
Eo: 90% Lower	206	206	219	186	186	183	177	187	190	186	163	180
Eo: 90% Upper	260	244	257	224	224	215	225	225	236	228	211	236

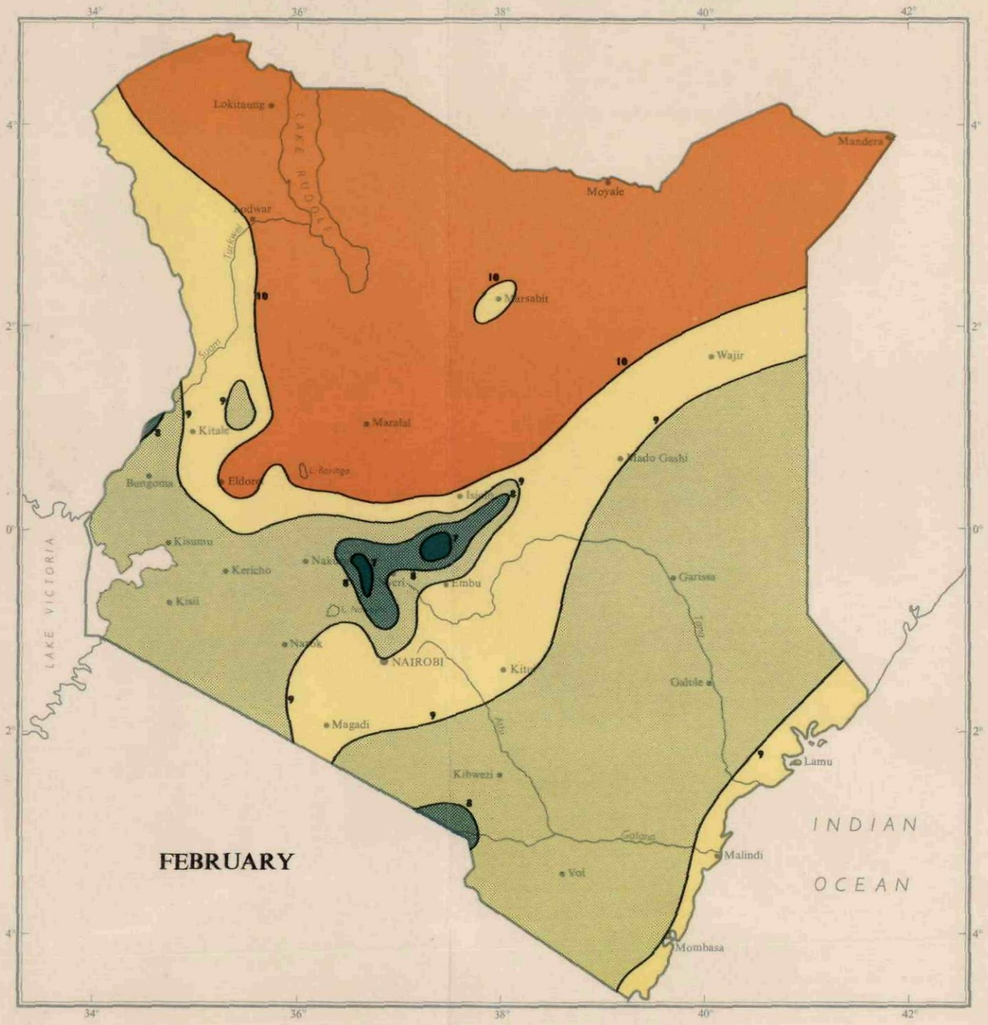
Eo (mm/annum): 2527
Accuracy: Monthly Eo: 14%
Accuracy: Annual Eo: 14%

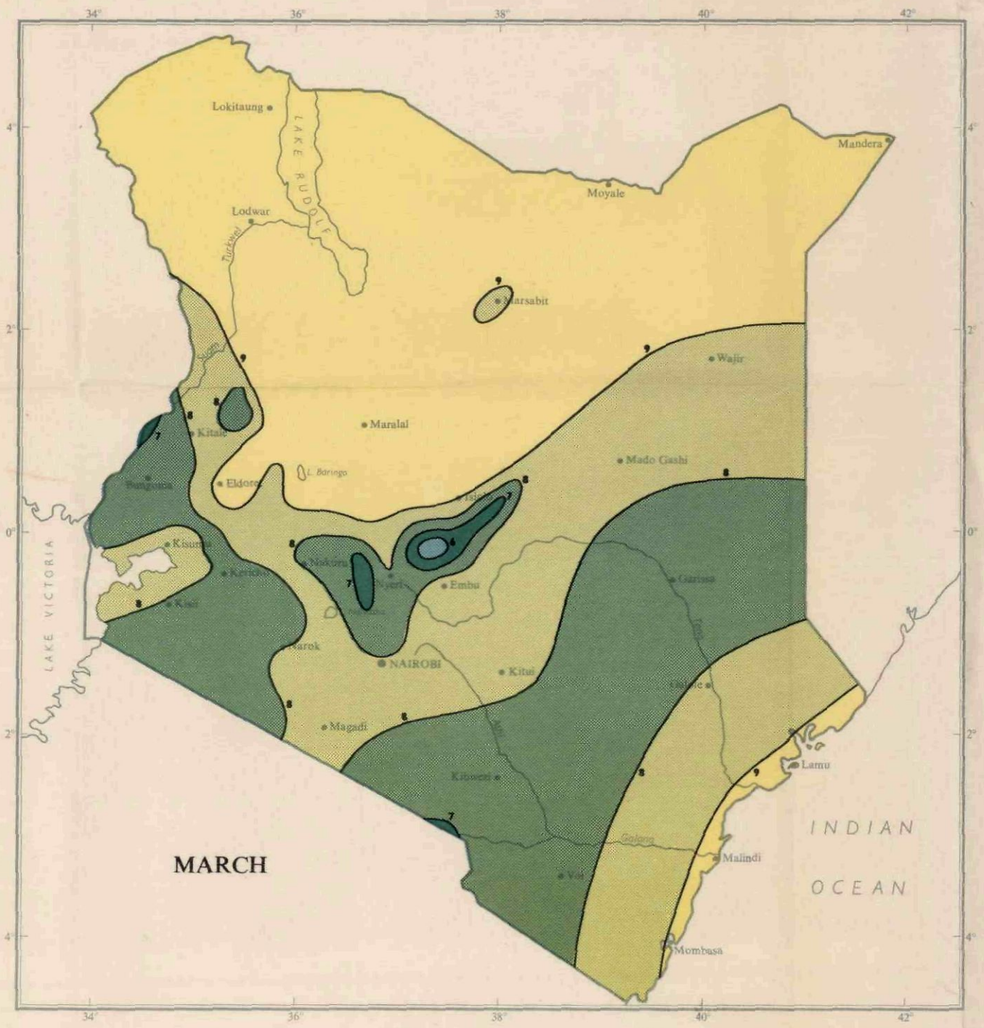
Variability : Mean Eo : 2527 mm/annum
90% Lower: 2398 " "
90% Upper: 2656 " "

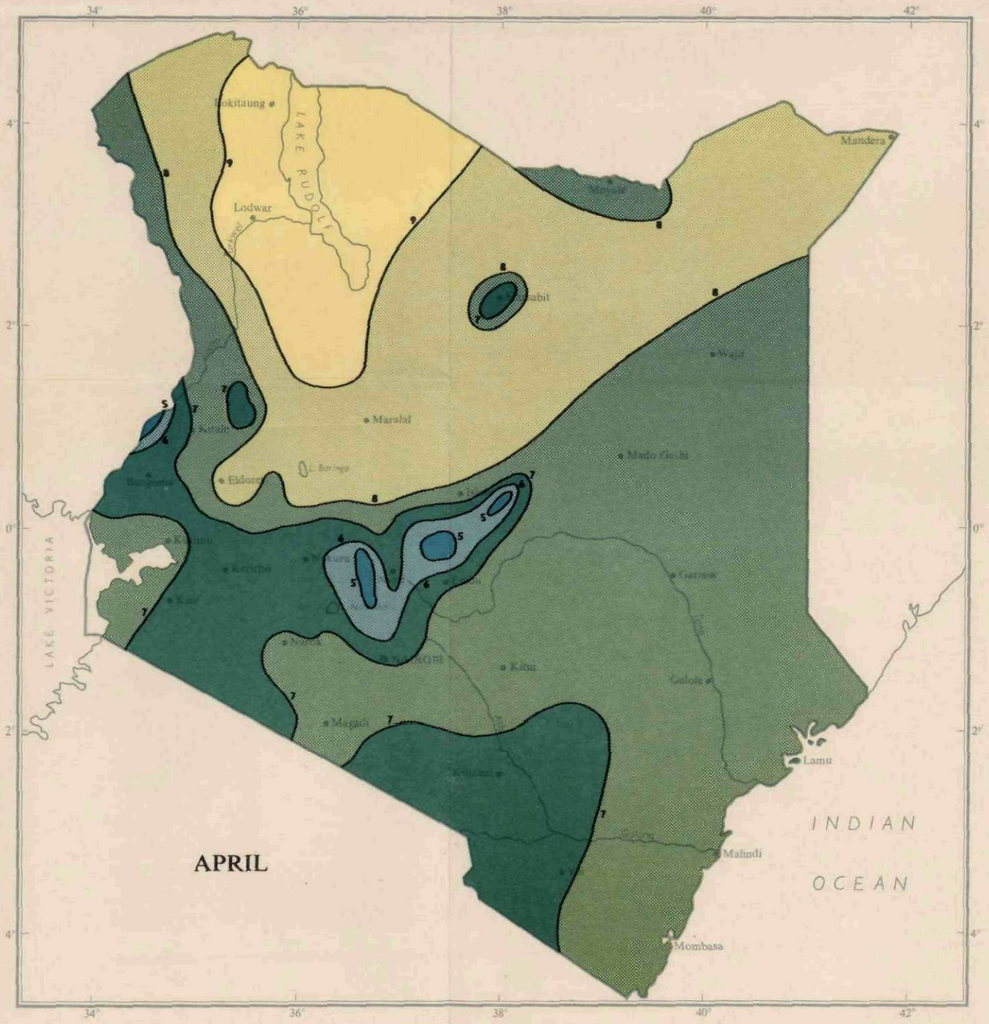
KENYA

MEAN DAILY DURATION OF BRIGHT SUNSHINE FOR EACH MONTH









Compiled from data available to
December 1966
by
T. WOODHEAD
(East African Agriculture and Forestry
Research Organisation)

Scale 1: 6,000,000

Miles 40 0 40 80 120 160 200 240 280 320 360 400 Miles

Kilometres 50 0 50 100 150 200 250 300 350 400 450 500 550 600 Kilometres

(1 inch to approximately 95 miles or 1 mile to approximately .01 inches)

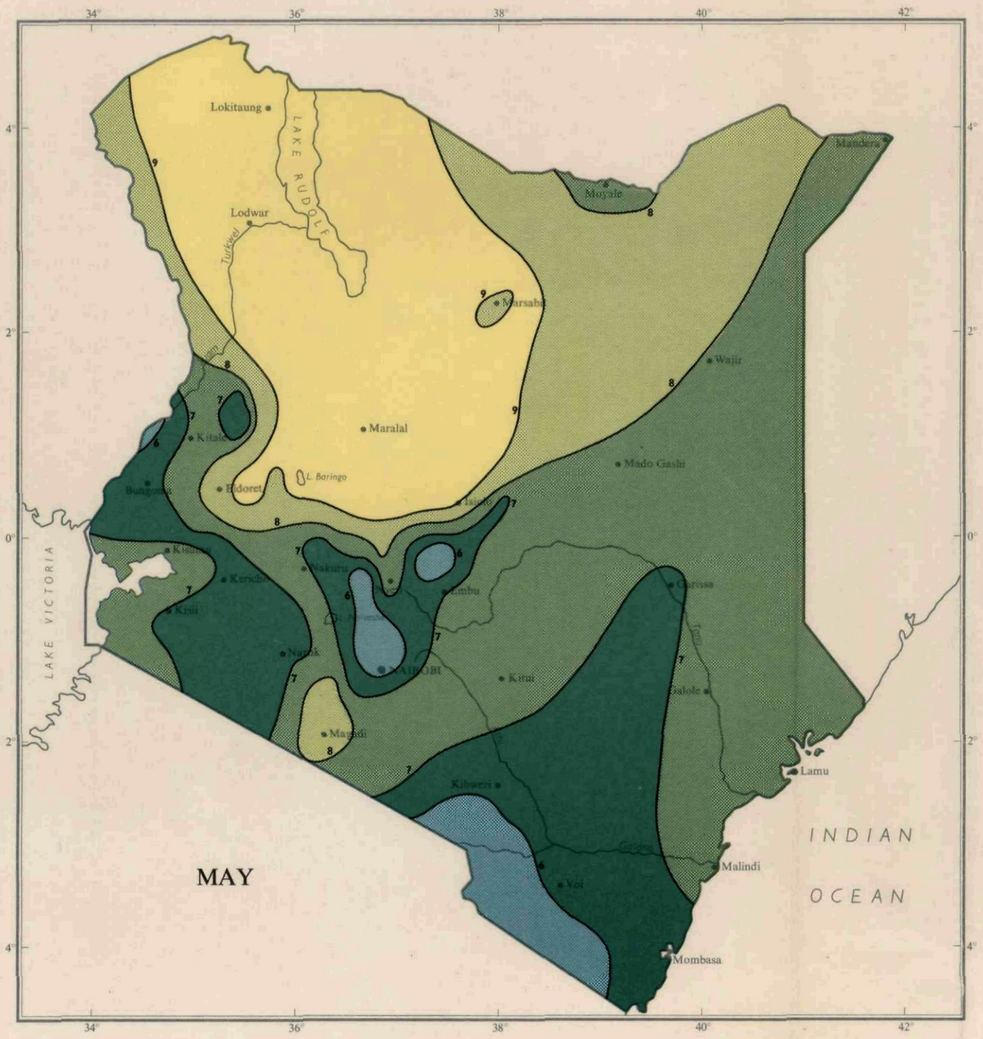
Hours per day

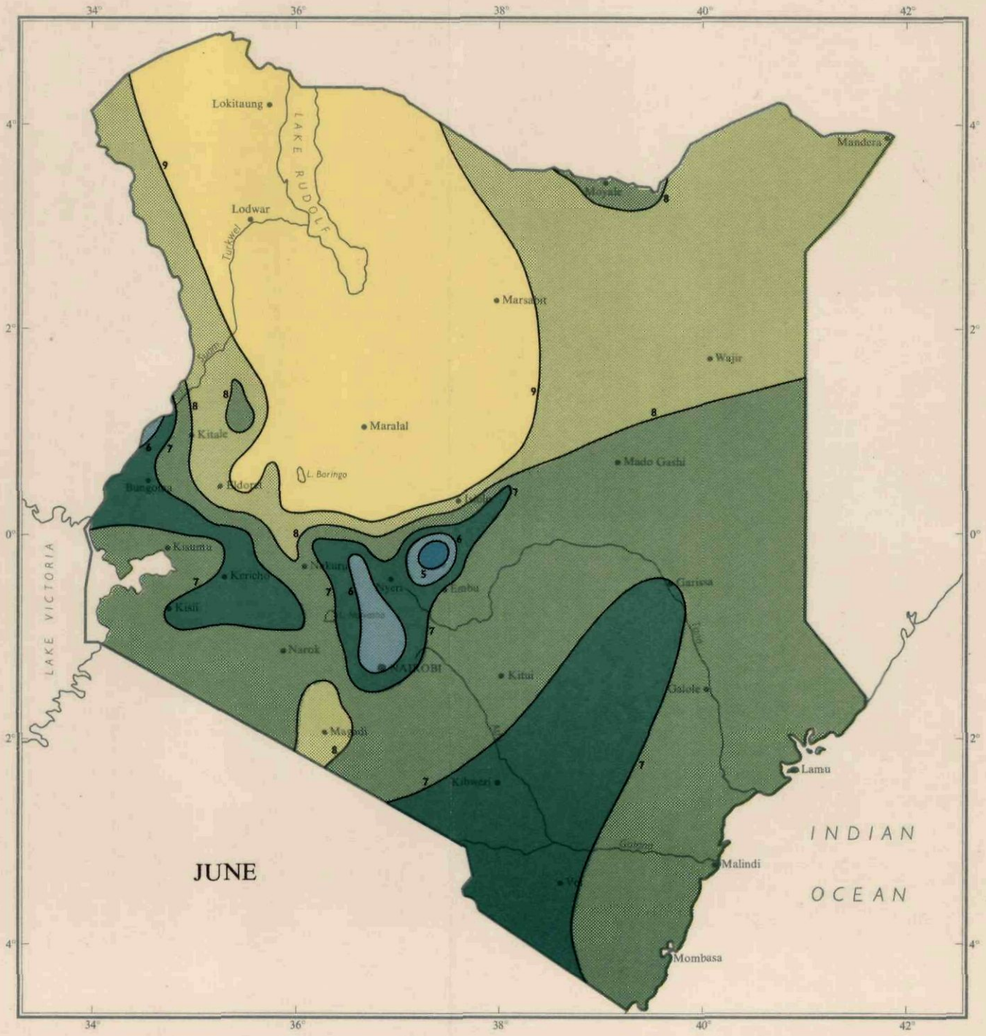
- More than 10
- 9 to 10
- 8 to 9
- 7 to 8
- 6 to 7
- 5 to 6
- Less than 5

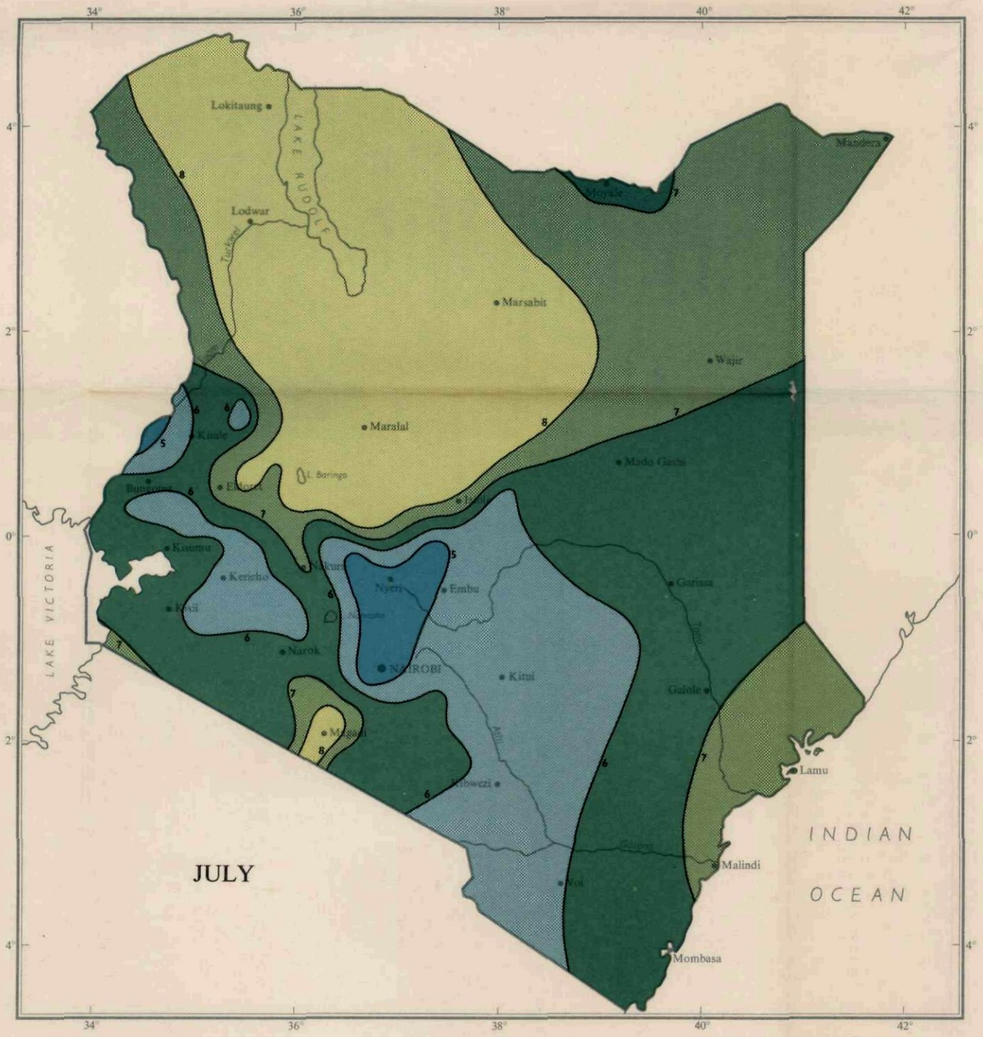
Published by the Water Development Department of the
Ministry of Natural Resources, Government of Kenya.

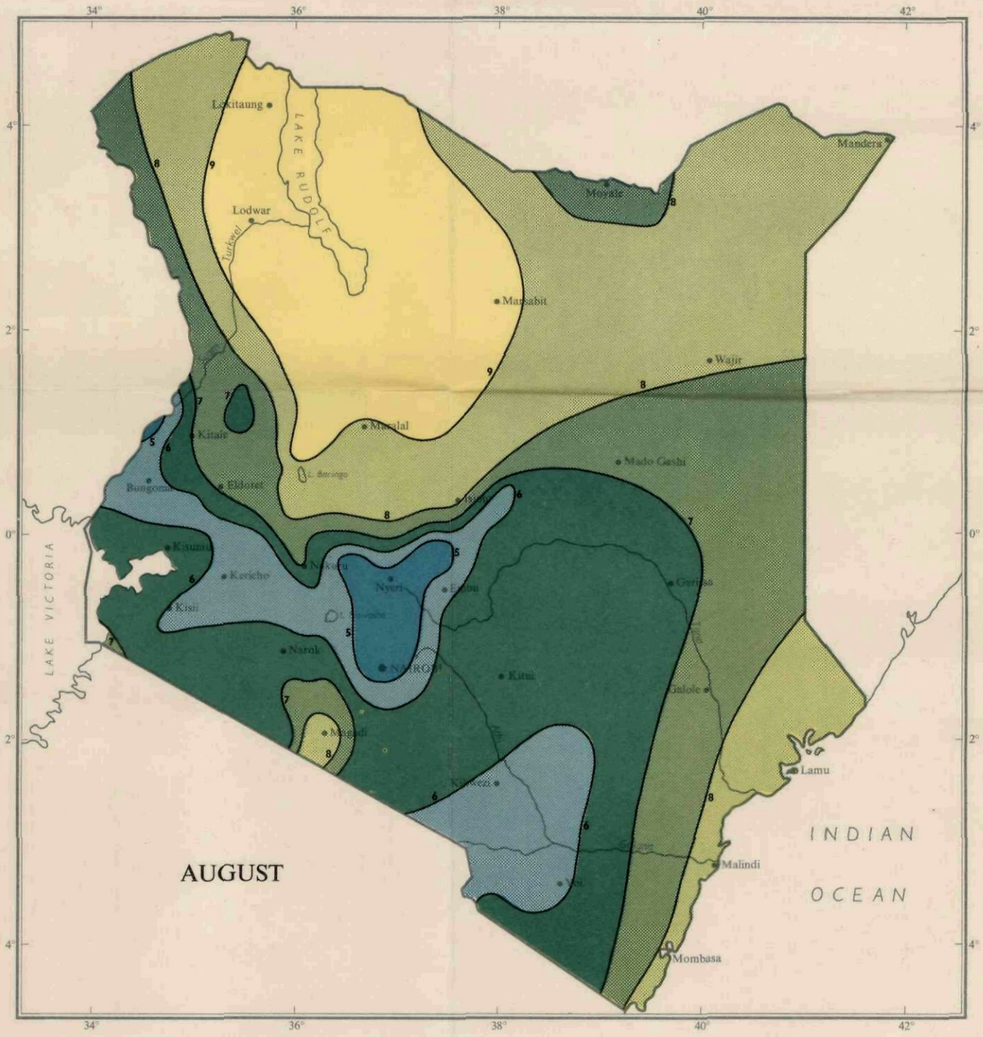
KENYA

MEAN DAILY DURATION OF BRIGHT SUNSHINE FOR EACH MONTH









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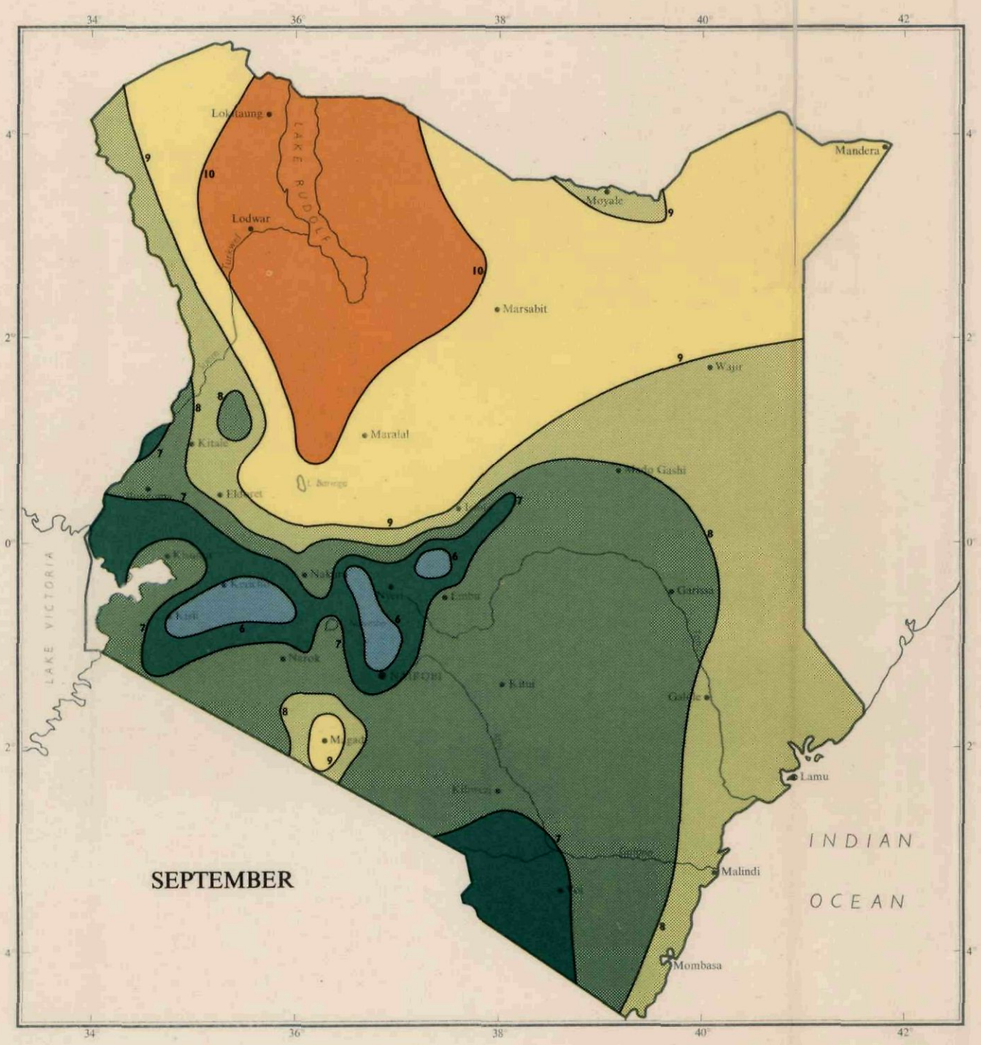

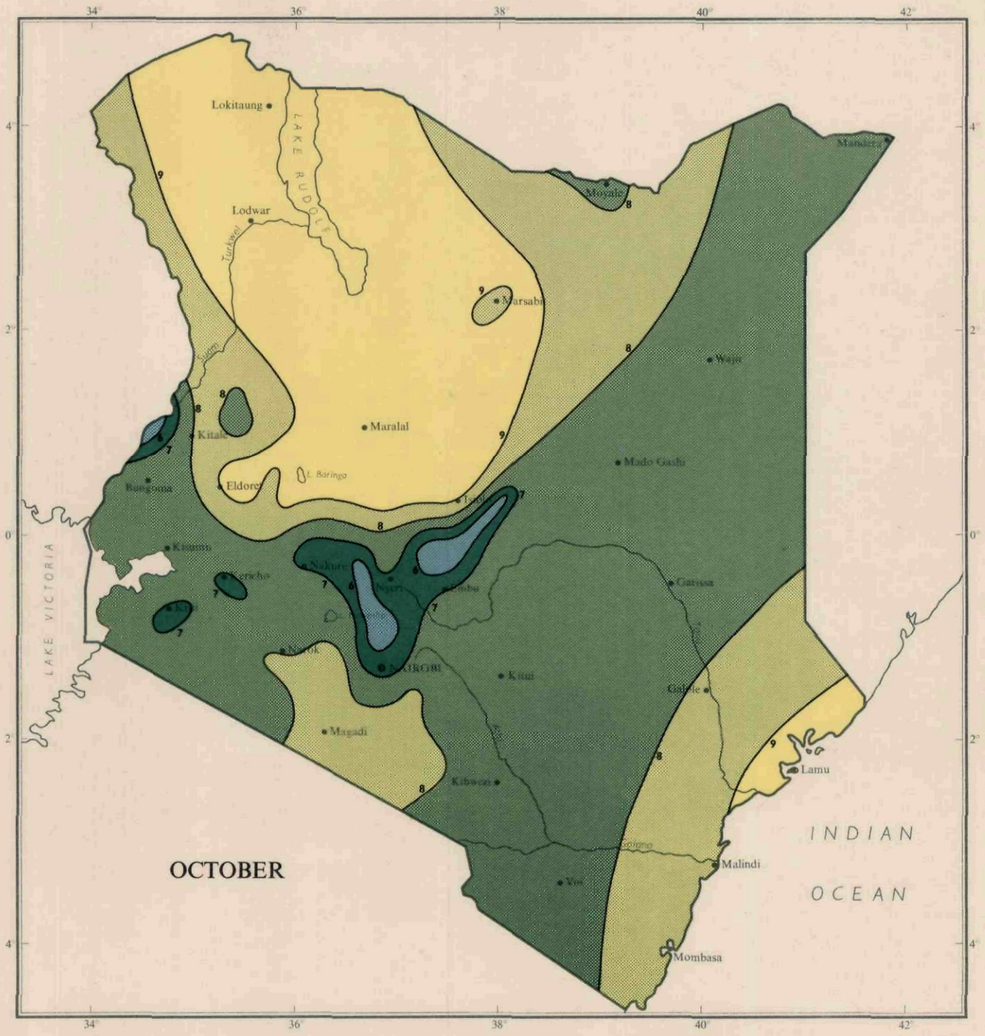

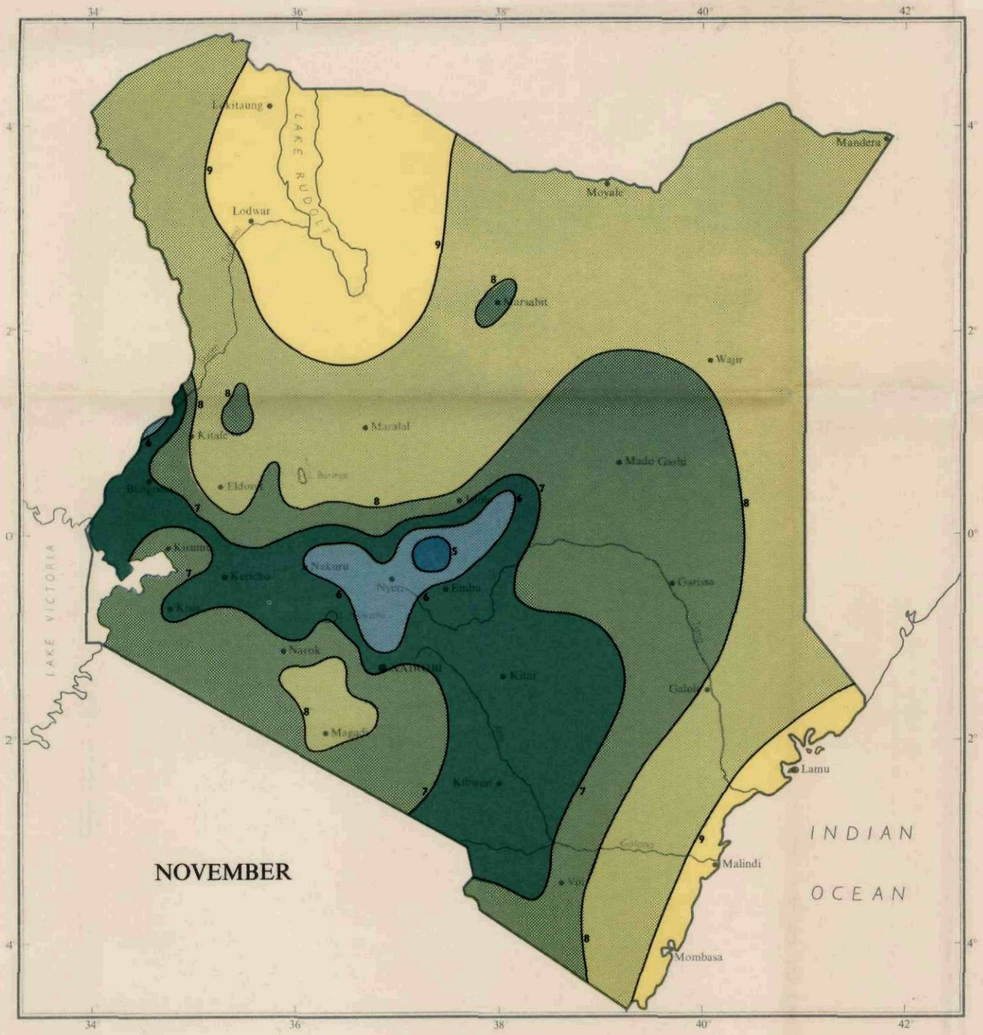

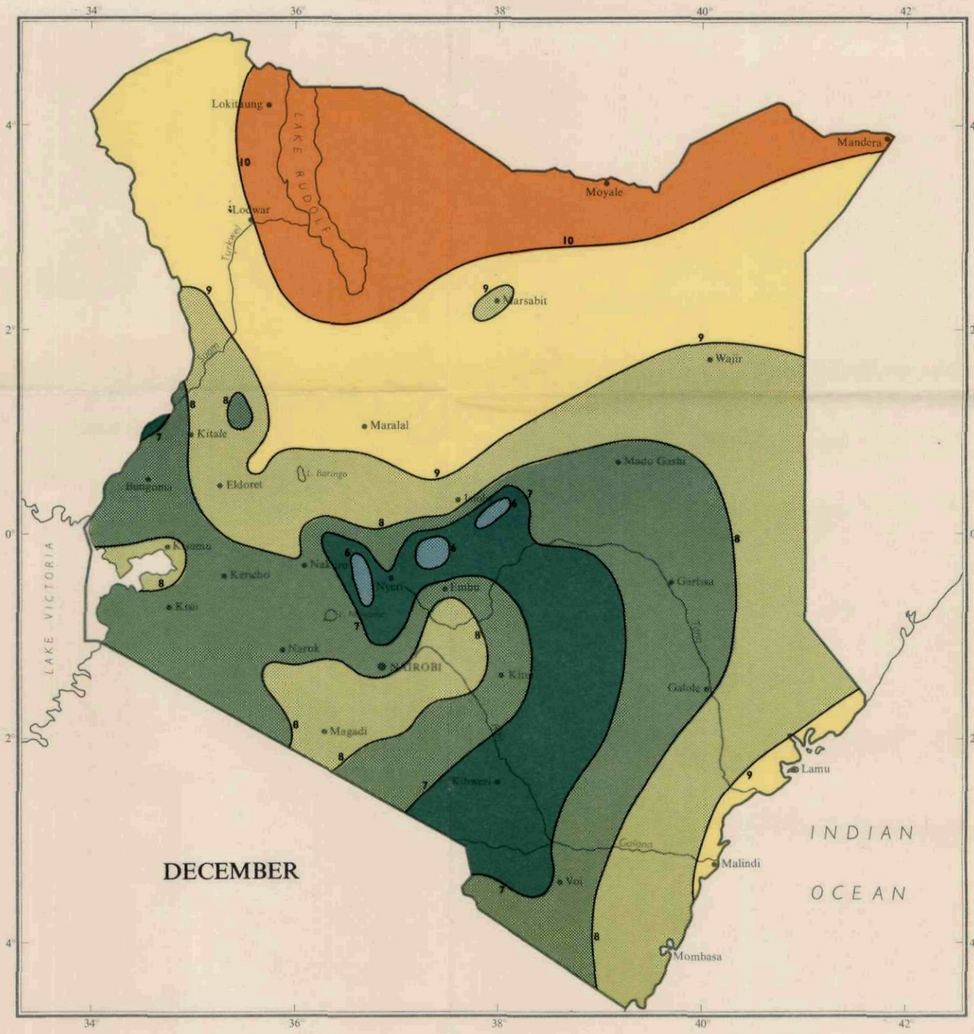

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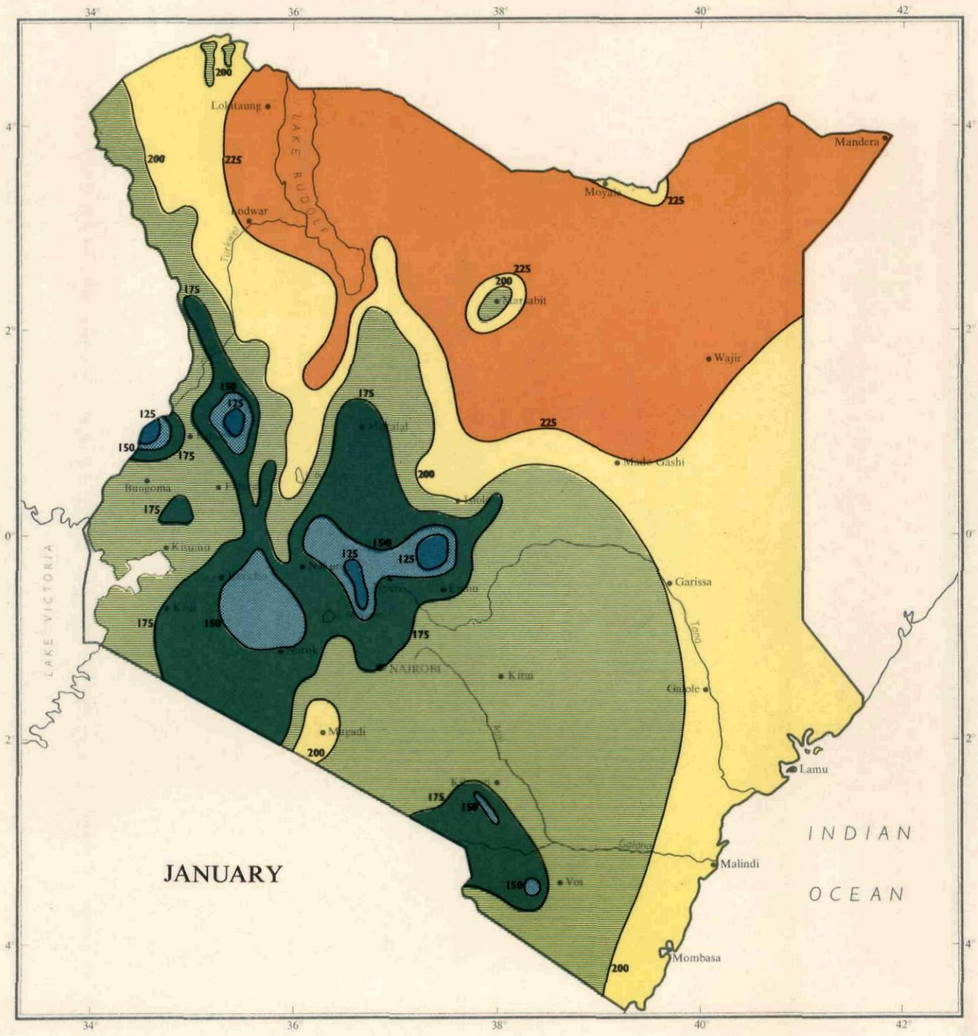
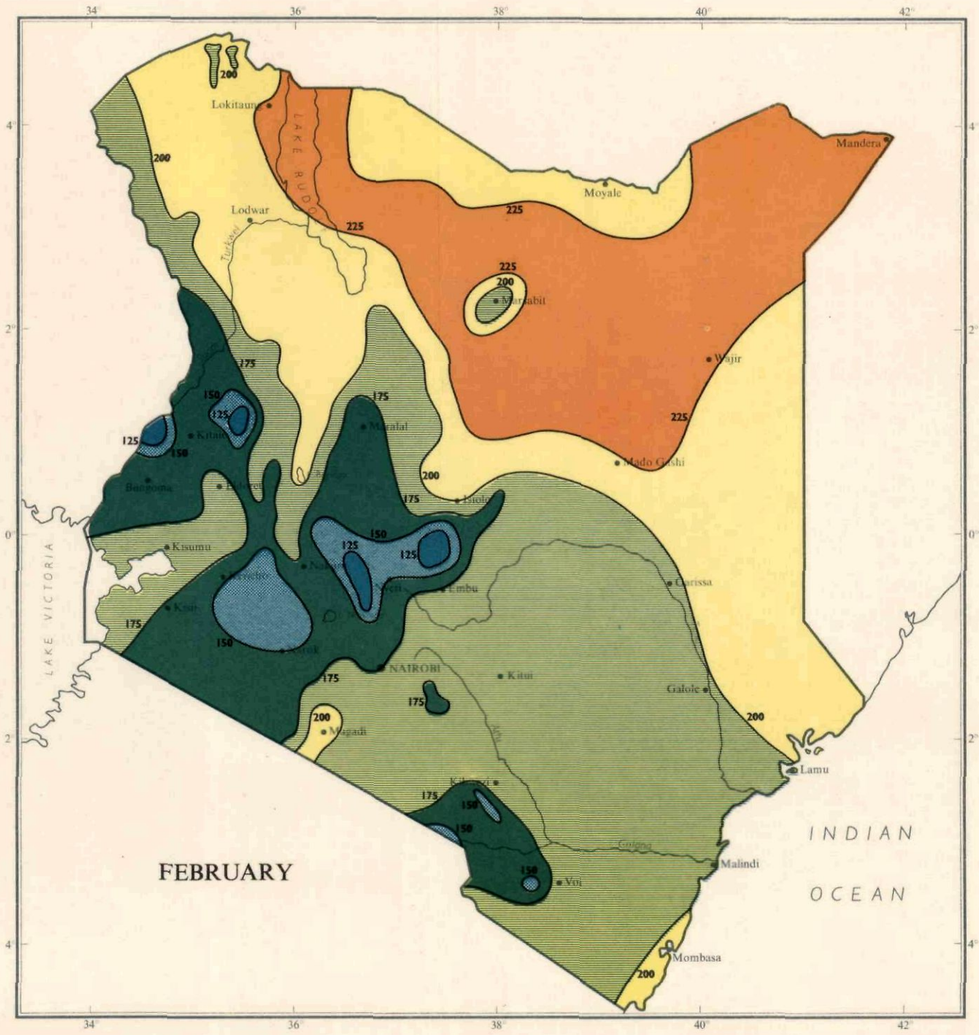
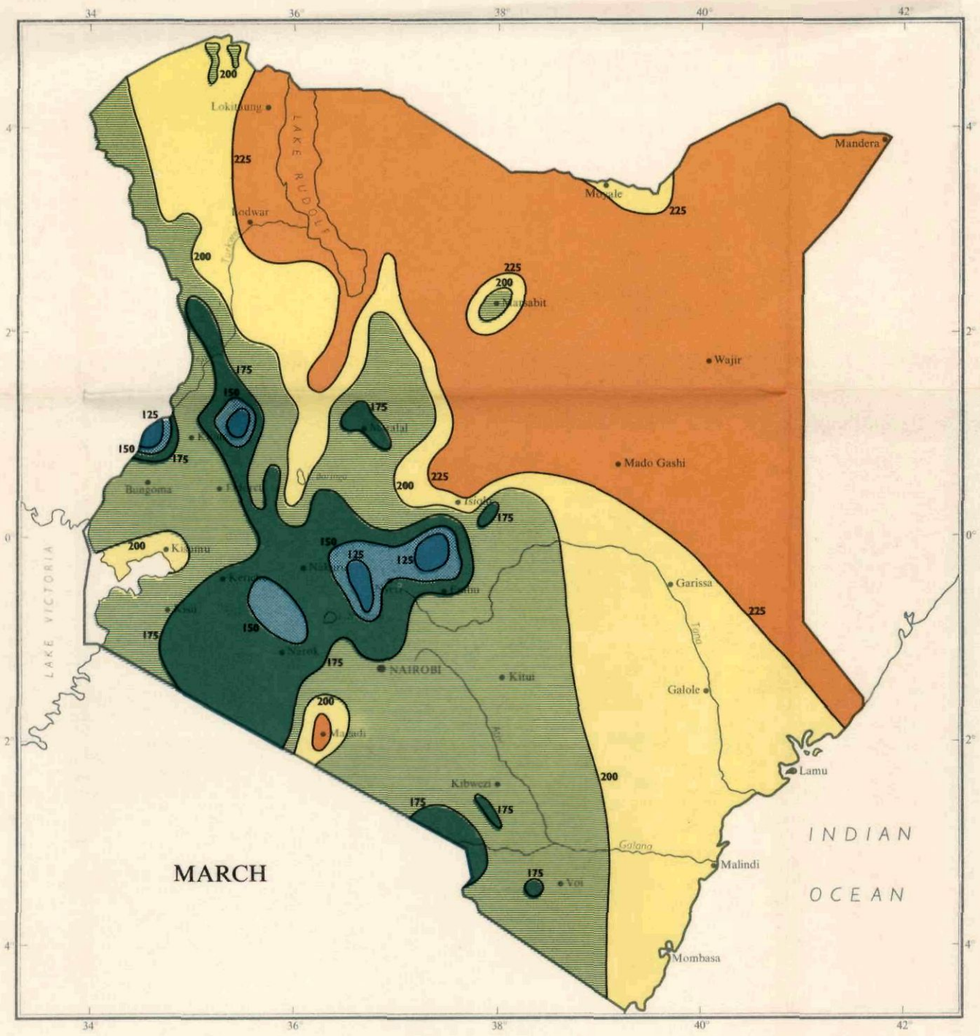
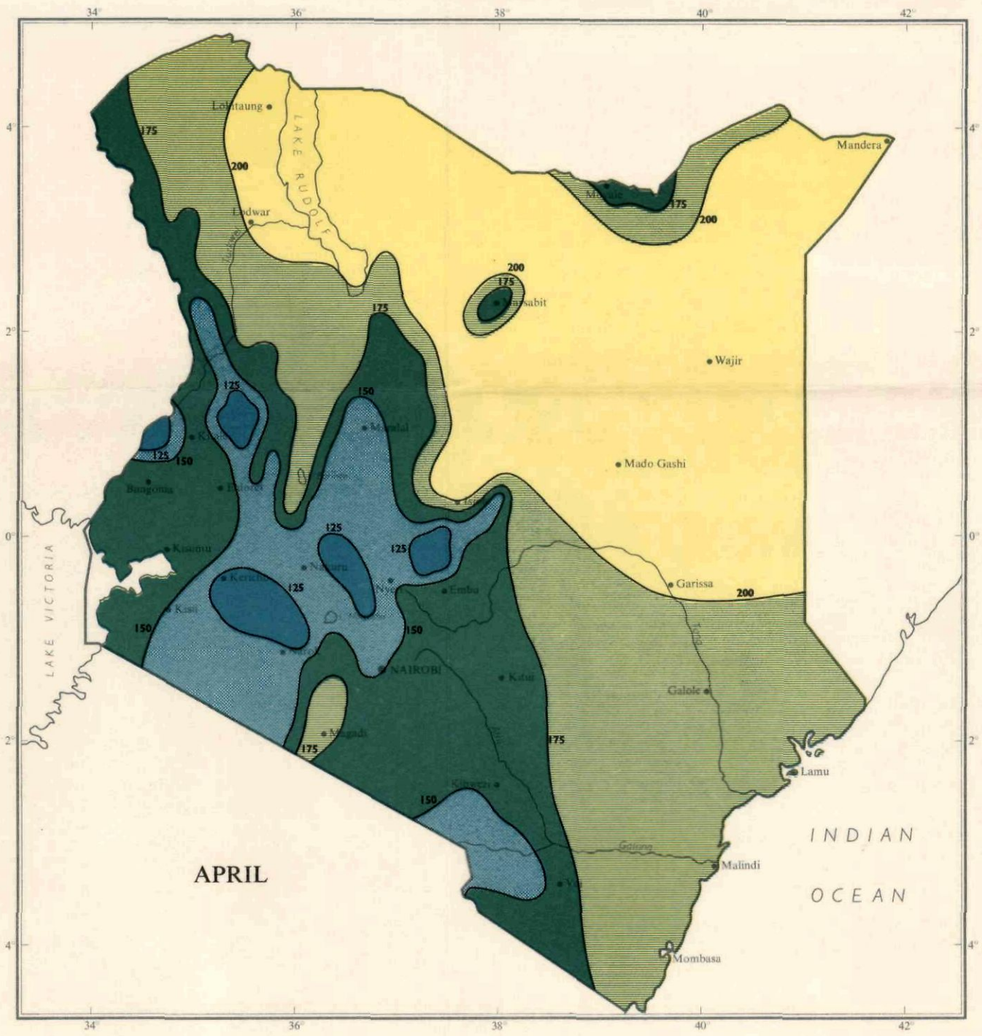
KENYA

MONTHLY POTENTIAL EVAPORATION FROM OPEN WATER (PENMAN E_o)









Millimetres

More than 225
200 to 225
175 to 200
150 to 175
125 to 150
Less than 125

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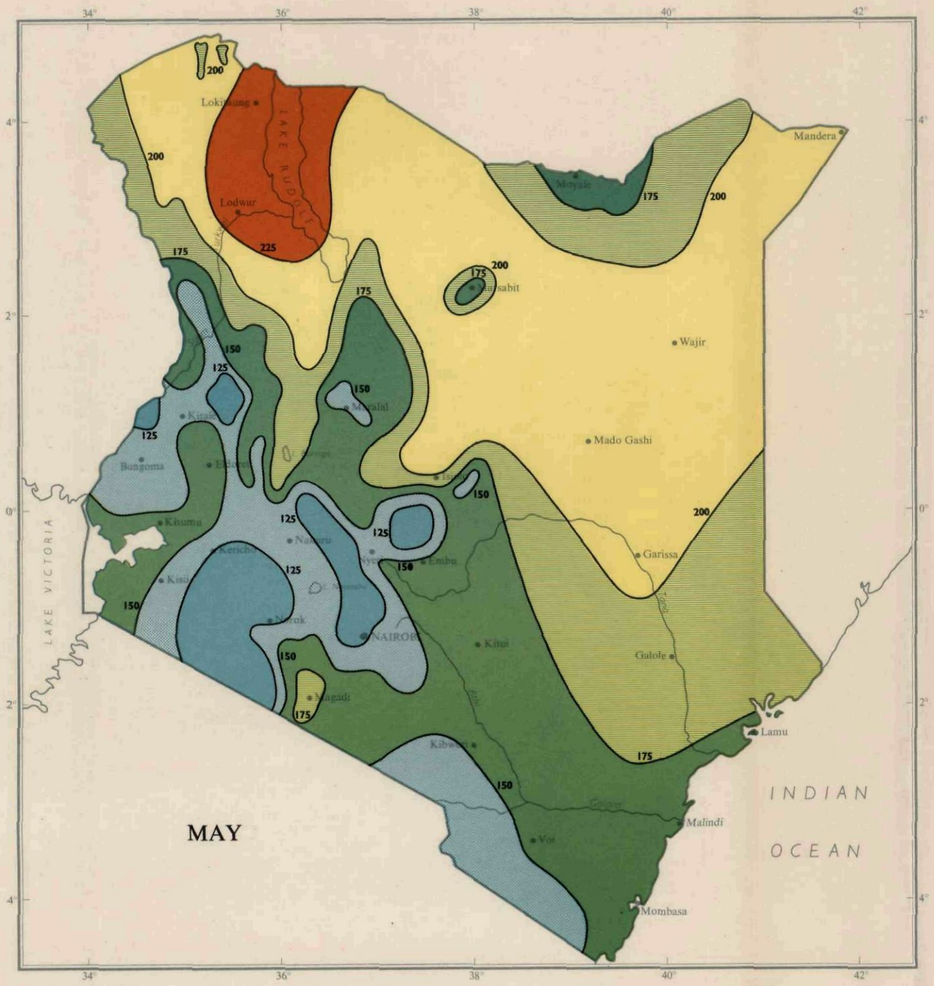
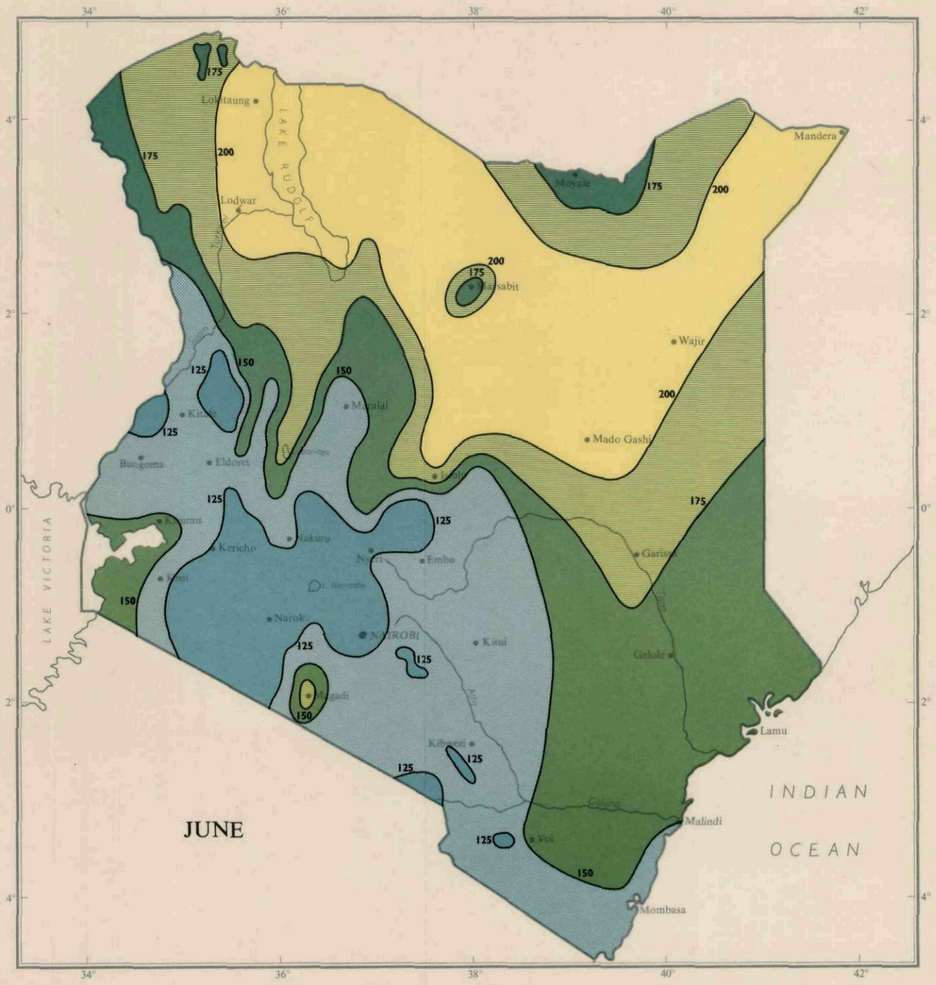
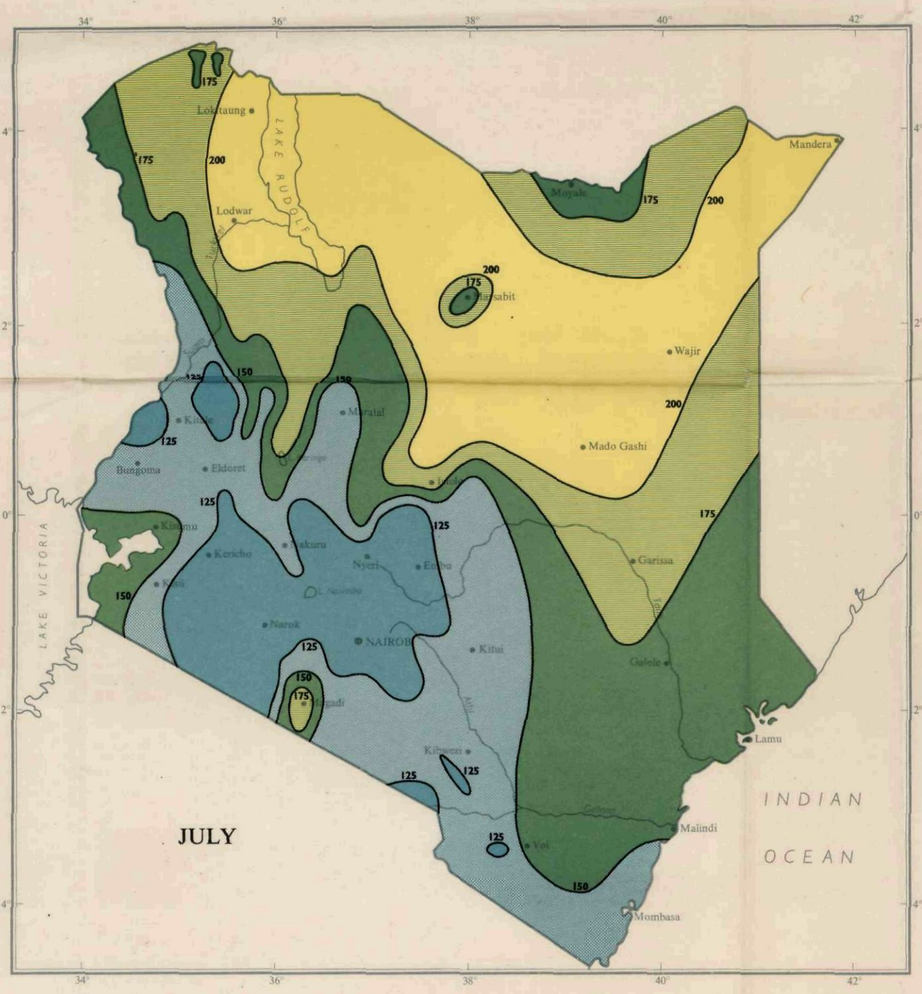
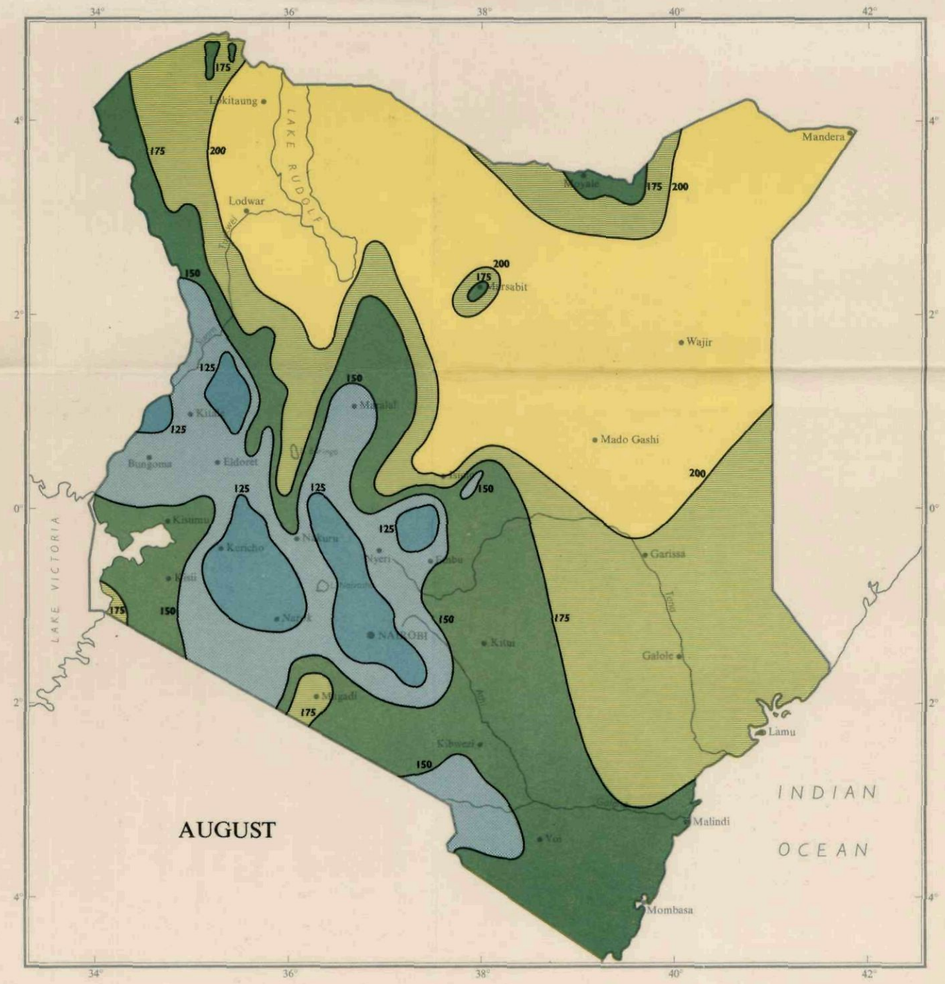
KENYA

MONTHLY POTENTIAL EVAPORATION FROM OPEN WATER (PENMAN E_o)









Millimetres

- More than 225
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- 175 to 200
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- 125 to 150
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KENYA

Sheet 7

KENYA
ANNUAL POTENTIAL EVAPORATION FROM OPEN WATER (PENMAN E_O)

Millimetres

- More than 2600
- 2400 to 2600
- 2200 to 2400
- 2000 to 2200
- 1800 to 2000
- 1600 to 1800
- 1400 to 1600
- Less than 1400

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(East African Agriculture and Forestry Research Organisation)

REFERENCE

- Boundary International
- Boundary Provincial
- Railway
- Principal Road
- Other Road
- Principal Track
- River
- Well, Water Hole, Waterpan (W, WH, WP)

Scale 1:3,000,000

Kilometres 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 Kilometres

Miles 20 0 20 40 60 80 100 120 140 160 180 Miles

1 inch to 47.35 Miles

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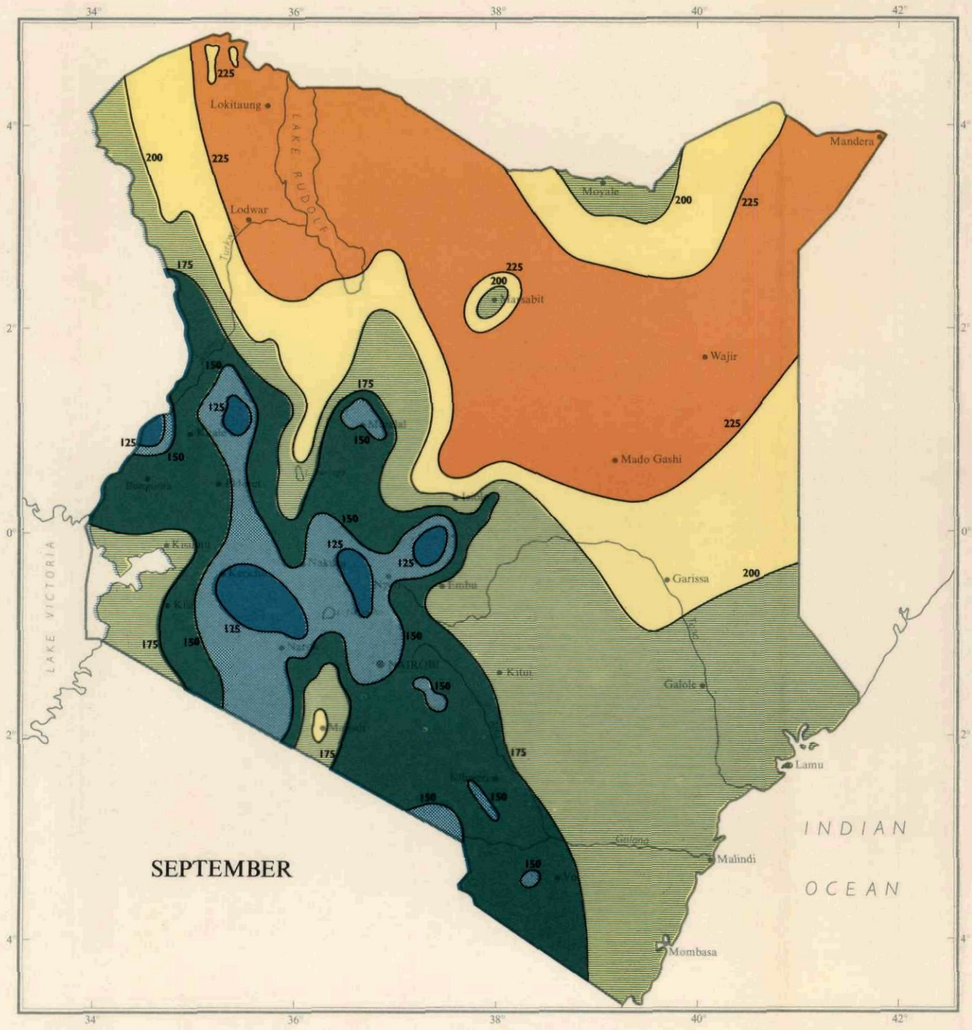
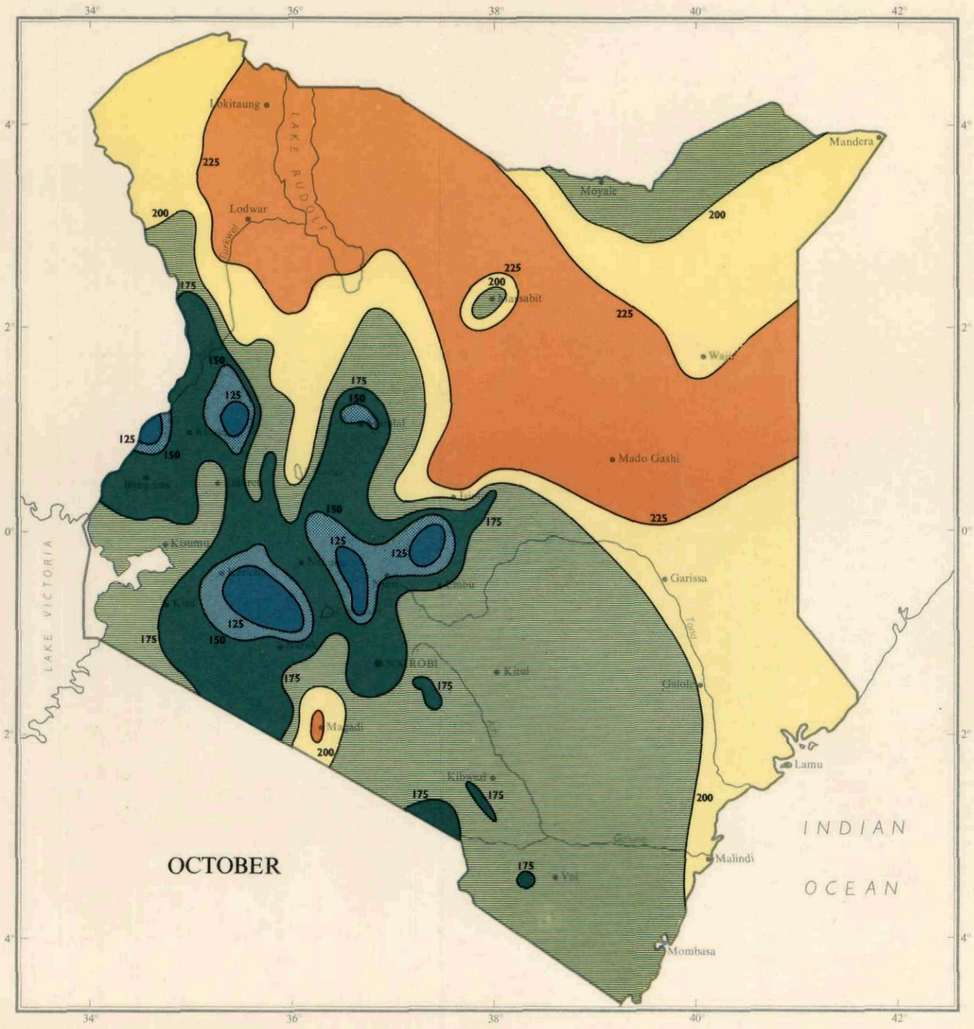
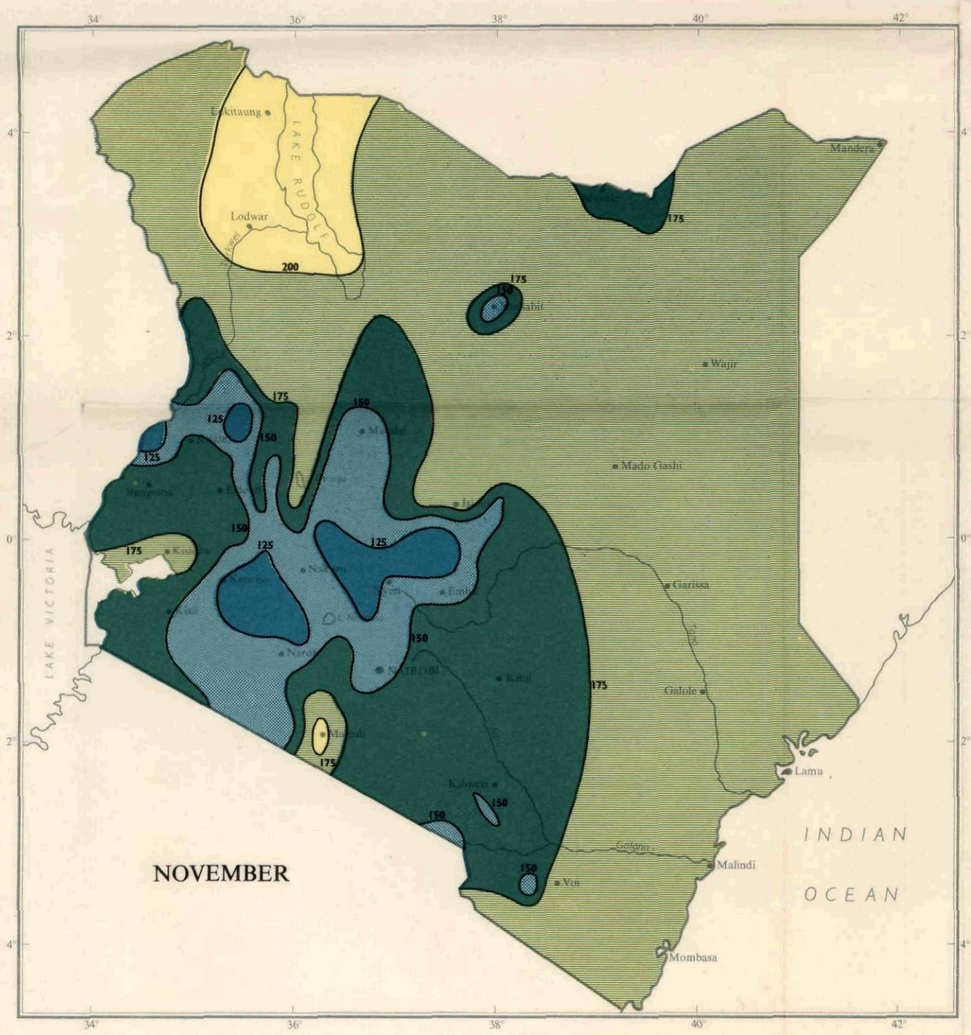
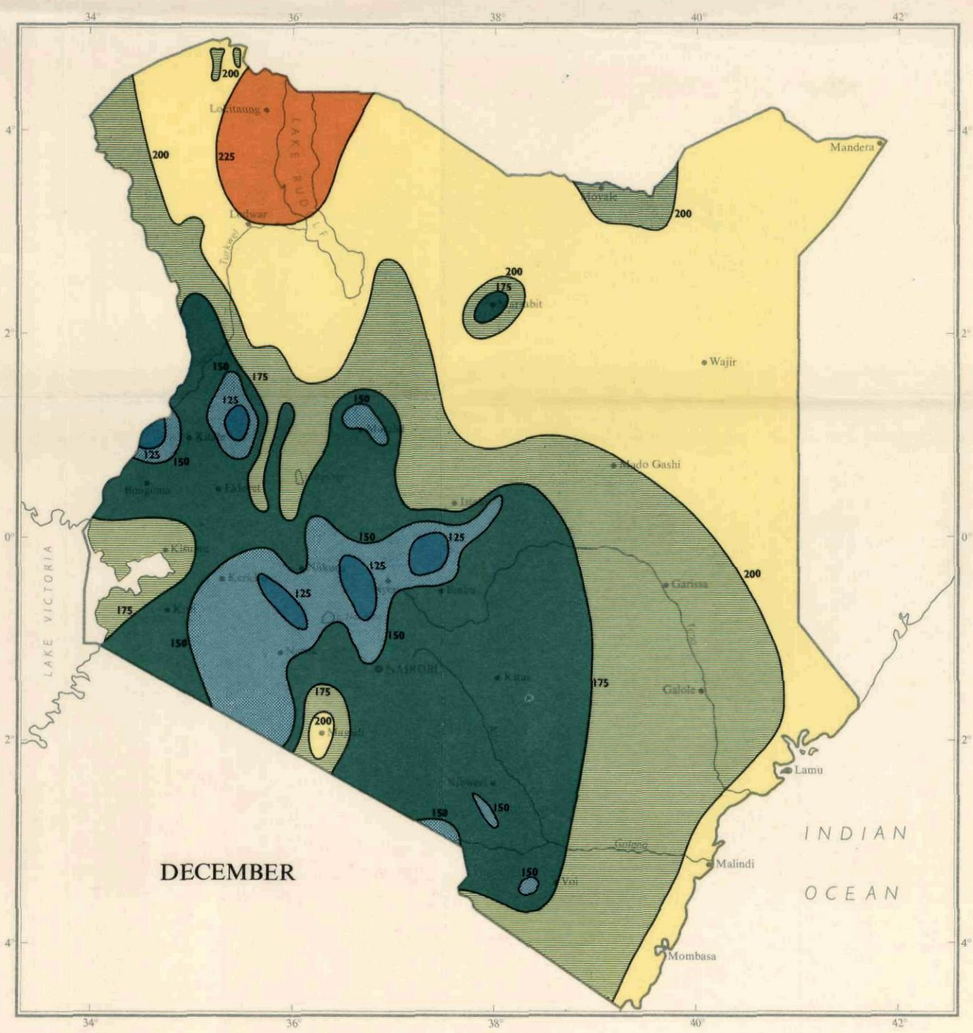
KENYA

MONTHLY POTENTIAL EVAPORATION FROM OPEN WATER (PENMAN E_o)









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