



COLONY AND PROTECTORATE OF KENYA

SESSIONAL PAPER

No. 7 of 1957/58

REPORT

OF THE

1956 GAME POLICY

COMMITTEE

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YOUR EXCELLENCY,

CHAPTER I—INTRODUCTION

Terms of Reference and Appointment

1. The Council of Ministers, at its Eighty-Fourth Meeting, recognizing that the policy of the Government should be to preserve Kenya's wild life as an asset of economic, scientific and recreational importance, advised the appointment of a committee to be known as the 1956 Game Policy Committee with the following terms of reference—

- (1) to consider and make recommendations as to the policy to be adopted for the long-term preservation of game, having regard to the interests of human population in game areas and to the economic development of the country;
- (2) in view of the urgency of a solution of the conflict in the Amboseli National Reserve between game and human interests which is rapidly reducing the value of this area as a game reserve, to make interim recommendations for the preservation of the game interest, having due regard to the consideration in (1) above;
- (3) to consider the liaison between Parks and the Game Department and to make recommendations for the strengthening of the Game Department and its preservational duties if this proves necessary;
- (4) to consider existing Game Legislation and to recommend, if deemed necessary, a strengthening of the Game Laws.

The 1956 Game Policy Committee was appointed by Your Excellency as follows:—

Mr. L. R. Maconochie Welwood (*Chairman*).

The Director of the Royal National Parks, Mr. Mervyn Cowie.

The Chief Game Warden, Mr. W. H. Hale.

Mr. S. H. Powles.

Dr. J. C. Likimani.

Representative of the Ministry of Forest Development, Game and Fisheries, Mr. A. P. Hume, C.I.E., Secretary to the Ministry.

Representative of the Ministry of African Affairs, Mr. K. M. Cowley, O.B.E., Provincial Commissioner, Southern Province.

Representative of the Ministry of Agriculture, Animal Husbandry and Water Resources, Mr. W. F. P. Kelly, Executive Officer, African Land Development Board.

Mr. F. D. Corfield, M.B.E. (*Secretary*).

Major E. W. Temple-Boreham, M.C., Senior Game Warden, attended during Mr. Hale's absence on leave. Mr. T. C. Colchester, as Acting Secretary to the Ministry, served on the Committee during Mr. Hume's absence on leave. Mr. J. W. Howard replaced Mr. Kelly as Executive Officer, ALDEV, on 1st November, 1956, and during Mr. Cowley's absence on leave, Mr. Kelly and Mr. C. F. Atkins attended successively when Acting Provincial Commissioners, Southern Province.

2. The appointment of the above Committee together with its terms of reference were notified to the public through the Press by Press Office Handout No. 190 of 23rd February, 1956. At the same time memoranda and representations were invited from the public.

Meetings, Visits and Witnesses

3. We have held 14 meetings of the full Committee and five meetings of special sub-committees which we appointed; our members have jointly, or in groups, been on eight *safaris* in order to consider the problems of specific areas and consult with local officials and unofficials on the spot; we have heard evidence from 25 witnesses and other interested bodies and have received 19 memoranda; our Secretary has visited National Parks in Uganda and Tanganyika and conferred with Game and Park Officials in those territories; he also attended the Serengeti enquiry, and we have read the report on Serengeti by Prof. W. H. Pearsall and the Report of the Committee of Enquiry under the chairmanship of Sir Barclay Nihill. A summary of some of these main events will be found in Appendix I.

First Interim Report

4. In our first Interim Report dated 31st August, 1956, we covered the second of our terms of reference and made recommendations for the preservation of the game interests in the Amboseli National Reserve. These recommendations were dependent on the provision of an alternative supply of water on the perimeter of the forested swamp area at Ol Tukai and on the regulation of stock to the proper carrying capacity of the land. We also made recommendations on three other matters which we considered required urgent attention:—

- (i) An adjustment of the boundary of the Tsavo Royal National Park involving what has become known as the Iltal/Njugini exchange.
- (ii) Measures to combat poaching.

- (iii) Certain amendments to the Wild Animals Protection Ordinance and the Royal National Parks Ordinance designed to enhance the penalties for offences under these Ordinances, and to make it an offence to be in possession of poison (the use of poison is already prohibited).

Our recommendations under (iii) above had therefore to some extent also covered our fourth term of reference.

These last recommendations were accepted by Government and action is proceeding or has been taken. In particular, we wish to draw attention to the success which has attended the vigorous anti-poaching campaign and to the Directive on the Protection of Wild Life issued by Your Excellency on 2nd January, 1957. A copy of this most important Directive is in Appendix III; a summary of our recommendations and the action already taken on them are given in Appendix VI. The First Interim Report is a Chapter VII.

Definitions

5. (i) Where in the course of this Report we refer to *game*, we use it as covering all forms of wild life unless the context shows that we are referring specifically to game animals scheduled as such under the Wild Animals Protection Ordinance.

(ii) *Agriculture*.—Unless the context shows otherwise, we have used the term agriculture in its widest sense as covering both arable and pastoral development of the land.

(iii) *Trustees*.—The word “Trustees” refers throughout to the Trustees of the Royal National Parks of Kenya established under the Royal National Parks Ordinance (Cap. 215).

A summary of definitions of other terms used in this Report is given in Appendix II.

Form of Final Report

6. In this Report we have applied ourselves mainly to the first and third terms of reference, though we have some further recommendations to make in regard to the game laws, which are the subject of the fourth term of reference. We have accumulated a mass of information and opinions on a wide variety of subjects, some more and some less relevant to the issues before us. Our problem has been how to marshal this information and present it in a concise and practical way. We have come to the conclusion that our cue lies in the wording of the first of our terms of reference. We are not asked to elaborate the case for and against long-term preservation of game, but to make recommendations as to a policy to be adopted to achieve such preservation. We believe, therefore, that the most practical step we can take is at the outset to summarize our

conclusions in the form of a draft policy White Paper. This will have the advantage of brevity, and of presenting matters of fundamental principle in a form upon which Government, should it approve our findings, can act.

Finance

7. We appreciate that the acceptance of this Report carries with it financial implications at a time when Kenya is suffering great financial stringency, but it is our view that game is a great capital asset which will only be assured to posterity if certain expenditure is incurred now. Bearing this in mind, we estimate that the immediate minimum annual expenditure which will assure the fulfilment of the more urgent of the recommendations we are putting forward in this Report, will be at least £30,000. Details of this expenditure are given in Appendix VII. Capital development expenditure has not been included and we are acutely conscious of the fact that the above sum is unlikely to prove adequate to ensure the long-term preservation of game: we therefore recommend that the financial requirements be re-examined as soon as the financial position of the Colony makes this possible.

CHAPTER II—DRAFT WHITE PAPER

WHITE PAPER NO. OF 1958

A Game Policy for Kenya

PREAMBLE

8. (1) BEING greatly concerned about the increasing and alarming destruction of Game in Kenya, and

(2) BEING convinced that unless concerted measures are consistently taken over a long period, game is in danger of extinction, and

(3) BEING further satisfied that this would constitute a grievous loss to the country's economy, as well as to the cultural, aesthetic and scientific life, not only of the Colony, but also of the British Commonwealth and of the world.

The Government of Kenya is *determined* to take all practicable steps to preserve game in the Colony, having regard to all legitimate human requirements.

For the better carrying out of this object the Government therefore *declares* its policy in regard to game preservation in the following terms:—

Objects of a Game Policy

Kenya still possesses a greater variety of spectacular and interesting animals than any other country in the world, often set in surroundings of great natural beauty. The peoples of Kenya have inherited this priceless asset and they owe it to mankind to preserve and hand on this asset to future generations. The Game of Kenya has a profound cultural and aesthetic value for its inhabitants, and also for a much wider public who come here to enjoy it. Because of this appeal to a world-wide public, game is of great economic importance to Kenya. The object of the Government's Game Policy is therefore to lay down the basic principles which shall govern the preservation of game as an essential feature of Kenya's culture and economy.

STATEMENT OF POLICY—

Preservation

1. The Government's policy is to preserve game in Kenya to the greatest extent possible.

EXPLANATION OF POLICY

1. (i) The Government recognizes that game has an aesthetic and cultural value and that its preservation is a duty which the Government and people of Kenya owe to posterity and to the world. Practical steps to preserve it must therefore be taken.

(ii) The Government further recognizes that proper land usage, in an age where the economic development of land is proceeding very rapidly, must take into consideration the asset of wild life, as forming part of the natural wealth of the country.

STATEMENT OF POLICY
(Contd.)

Responsibility for Preservation

2. The final responsibility for defining the policy for the preservation of game in Kenya, and for ensuring that it is effectively carried out, rests with the Government.

Machinery for carrying out the Policy for Preservation

3. (1) (i) The Government will maintain a Game Department under a Chief Game Warden, who shall be the principal technical officer to advise the Government on game policy and to carry approved policy into effect. Within the financial limits available from time to time, it will strengthen the Department to enable it to perform effectively its main function of game preservation.

(ii) The whole or part of existing National Reserves, and such other areas as the Government may, from time to time, consider suitable, will be designated "game reserves" and treated as areas in which special measures of game preservation will be undertaken; in such areas the Trustees of the Royal National Parks shall have such specific rights and responsibilities as the Government may from time to time invite them to undertake.

(iii) The Government also intends to extend and make full use of the "Controlled Area" system as an instrument of game management and control.

EXPLANATION OF POLICY—(Contd.)

2. The determination of policy in regard to proper land usage, in which game preservation is a factor, is a matter of national importance. Ultimate responsibility both for formulating policy and for ensuring that the policy is effectively carried out must therefore rest with the Government.

3. (1) (i) Game preservation, and its corollary, game control, are matters requiring technical skill and experience, and the Government intends to maintain a staff adequate to the effective performance of these functions. The existing Game Department will require considerable strengthening both in numbers of competent Game Officers, in composition and in resources. Game preservation and control are in the long term impossible without full scientific knowledge and the Government intends, as soon as funds permit, to establish a permanent Game Research Unit.

(ii) The Government appreciates that there are areas, which, by reason of their faunal, floral or scenic attractions, should be retained for the preservation of wild life and for recreational enjoyment, but which cannot be constituted National Parks because other human interests therein cannot be excluded. The Government proposes to constitute such areas "game reserves" and to abolish existing national reserves. In these game reserves game control will be the responsibility of the Government whilst the Trustees of the Royal National Parks will be invited to undertake the development of the recreational aspects.

(iii) The Government proposes greatly to extend the system of "Controlled Areas" as an instrument of game management and control. By imposing varying degrees of restriction on shooting the Government can give effect to a sustained policy or game management to suit the needs of specific areas and species. In some regions maximum hunting on licence will be allowed; in others prohibition to shoot animals of a particular species in need of protection will be enforced; in others again total prohibition of shooting (except by Game Officers for the purpose of preventing game damage) in an area adjacent to a national park or game reserve may be necessary.

STATEMENT OF POLICY—
(Contd.)

3. (2) The Government will foster and, within the limits of finance available give financial support to the Trustees of the Royal National Parks to enable them to carry out the functions entrusted to them in accordance with the overall policy of Government.

(3) The Government will, in the policies of all its Ministries and Departments, have regard to game interests.

(4) The Government will set up a Standing Game Advisory Committee and give statutory recognition thereto, to advise the Minister on the carrying out of the Government's policy.

Functions of the Trustees of the Royal National Parks in regard to Game Preservation

4. Within national parks the Trustees of the Royal National Parks shall be solely responsible for game preservation.

Publicity and Propaganda

5. The Government will encourage and, within the limits of finance available, give financial assistance to measures designed to educate public opinion on the importance of game preservation.

EXPLANATION OF POLICY—(Contd.)

3. (2) In the last resort the complete reservation of game can only be assured fully in national parks.

The Government must look to the Trustees of the Royal National Parks to provide the main bastion in its long-term game preservation policy. The Government will maintain existing national parks and endeavour to create new ones in all those areas having a high faunal interest, in which there are no insuperable conflicting human interests.

(3) While the Chief Game Warden and the Game Department and the Trustees of the Royal National Parks will in fact supply the main executive effort in carrying out the national policy for game preservation, other Ministries and Departments of Government are in a position to give assistance. It is therefore the Government's intention that such Ministries and Departments shall re-examine their policies in the light of the Government's declared intention to preserve game to the greatest possible extent.

(4) The Government recognizes that its policy of game preservation is a continuing process and intends to set up by law a Game Advisory Committee. This committee shall normally advise the Minister on all matters connected with the fulfilment of the Government's game policy. In particular, the Government recognizes that game preservation may on occasions mean conflict with other local interests: it will also be the duty of this committee in such cases to advise the Minister on the best means to resolve such difficulties in the interests of game preservation.

4. The Government adheres to its policy that national parks should be under public control and therefore supports the existing statutory basis for control of national parks by an independent body of Trustees.

5. (i) As the future of game will depend mainly on the attitude of the African peoples towards it, the Government recognizes that it has a prime duty and responsibility to educate the African peoples to recognize that wild animals are a unique asset and a possession most valuable to themselves and to the world at large.

STATEMENT OF POLICY—
(Contd.)

EXPLANATION OF POLICY—(Contd.)

(ii) The Government further recognizes that a vital factor in inducing a change in the present attitude towards game in areas where it is the declared policy of Government to preserve game, e.g., in game reserves, will be to give those Africans whose livelihood is immediately affected, a direct financial interest in the economic aspect of such preservation.

*Responsibility for Control of
Wild Animals*

6. (1) The Government recognizes its final responsibility to control game animals, scheduled as such under the Wild Animals Protection Ordinance, and, as far as possible, to prevent them from causing injury or damage.

(2) The Government recognizes no liability to control or destroy wild animals which are not scheduled for preservation or which are not protected by some other means.

6. (1) The Government does recognize a responsibility, arising from its declared game preservation policy, to assist in the control of scheduled game animals as far as it is possible to do so. Control is an important function of the Game Department and the Government intends that, within the limits of finance available, such control shall be effective.

(2) Whilst the Government accepts no liability for the control of non-scheduled game animals, it will, through its various appropriate departments, give such advice and help as is possible where the presence of vermin has become a serious threat to agriculture or stock.

CHAPTER III—FURTHER DISCUSSIONS ON HEADS OF POLICY AND OTHER MATTERS WITH RECOMMENDATIONS ON ACTION TO BE TAKEN

We now proceed to discuss some of the heads contained in the foregoing draft Policy Statement, and also to indicate specific action which we recommend the Government should take in putting it into effect.

The Need to Regard Game Preservation as One of the Factors in Determining Proper Use of Land

9. Hitherto, game as a factor of economic value in determining proper land usage has not been considered at all in Kenya. The 1939 Game Policy Committee were enjoined to pay special regard to the necessity of preventing game coming into serious conflict with the economic development of the country. As recently as 1955, the East Africa Royal Commission (1953-55) expressed the view that "the preservation of game must not be allowed to stand in the way of the current need for proper land usage" [1]. In contrast, in recent years, there have been notable advances in many parts of the world in the realization that wild life, in its appointed place, is itself a factor of increasing economic importance, and that the preservation or conservation of game is a matter which must be taken into account with other factors when determining the proper land usage in any area. This change of outlook is reflected in our first term of reference.

10. In spite of the strong moral obligation to preserve game, the right of animals to live in this materialistic age will, in the end, be judged largely in relation to their contribution to the economy of the country. Plainly one of the most difficult tasks which will confront the Government in any long-term action to preserve game, arises from the axiom that such action must be shown to be in the best national interest and consistent with other local human interests. The difficulty will be to assess in any given area the relative value of the game, and of other human interests; to decide whether preservation of game is consistent with such other human interest and is justifiable in the national good. Can it be said, for example, that over-grazing by Samburu cattle in the mountain ranges of the Northern Frontier District—the Matthews, the Ndotos and Mount Nyiro—which abound in game, is even in the best local interest? We think that there is a strong *prima facie* case for the exclusion of stock from the forested areas of these mountains and that the proper, and in fact only, land use for such areas is as vital water catchment areas. That game would continue to exist would be incidental to this preservation. The fact is that problems of this kind resolve themselves into the issue of what is the proper land use for such areas. We

Note [1].—See Appendix IV, Part 3.

regard it as a fundamental necessity of long-term game preservation that in future such questions as the relative economic recreational and cultural value of preserving an area for game, and its value for any other purpose should be fully assessed before its long-term use is decided [2]. If, as the result of such an assessment, the Government decides that the preservation of game in any particular area is in the national interest, two courses are open; where there are no conflicting human rights the area can, if the Government so decides, be declared a national park (*see* paragraphs 25-26); where there are existing human rights which cannot be extinguished, stock may have to share the area with game, but will have to be limited and controlled if the preservation of game is to have any permanence (*see* paragraph 14-19). The question of compensation which will arise where legitimate human interests are effected is dealt with in paragraphs 30-32.

Machinery for Assessing and Advising on the Claims of Game Preservation in Determining Proper Land Use

11. The Standing Game Advisory Committee within the limitations of its membership and constitution, as advisory to the Minister, should be able to perform the functions of advising on many, if not most cases, of proper land use where the game interest conflicts, or might conflict, with some other human interest. Cases might, however, occur where this Committee is unable to reach an adequate degree of unanimity to enable the Minister to submit an agreed recommendation to the Government. As it is the constitutional function of the Council of Ministers to advise Your Excellency in such cases, it is not for us to make any specific recommendations to cover such cases. We refer again, in more detail, to the subject of the Standing Game Advisory Committee in paragraph 26 below.

The Principle of Ultimate Government Responsibility for Long-term Game Preservation

12. Turning to the second main head of the draft Policy Statement—"Responsibility for Preservation"—we regard it as vital that the Government should now not only fairly and squarely shoulder ultimate responsibility for long-term game preservation, but should also publicly announce its intention of doing so. "If the trumpet give an uncertain sound who shall prepare himself to the battle?"; and while we wish to offer no criticism of the way in which the various bodies in Kenya, official, unofficial and statutory, concerned with game preservation, protection or control, have addressed themselves in the past to their allotted or self-imposed tasks, we cannot escape the conviction that the cause of long-term game preservation in the national interest has suffered in part from the lack of unified policy.

Note [2].—A Note on Proper Land Usage in Relation to the Preservation of Wild Life is attached as Appendix IV, Part 1.

Machinery through which the Government Should Discharge its Responsibility

THE CHIEF GAME WARDEN

13. Head 3 of the draft Policy Statement broadly indicates the machinery which the Government should use in order to make its game preservation policy effective. We believe that the leader of the forces employed must be the Chief Game Warden, and as we recommend that the Game Department is responsible for game management throughout the Colony apart from the special areas of national parks, the Department will require appropriate staff to supply the basic scientific knowledge and also an increased cadre of field staff to apply the results of scientific research. We consider that one qualified research scientist should be recruited as soon as possible and that a minimum of four Game Wardens will be required within two or three years. We deal with Faunal Research in more detail in paragraphs 37-40.

GAME RESERVES

14. In Kenya the practical difficulty is that there are many areas where the high faunal interest, often enhanced by outstanding scenic attractions, would fully justify the creation of national parks, but where, because of other human activities, such a course is not possible; Amboseli, the Mara, parts of the present Marsabit National Reserve are obvious examples. Our predecessors, the 1939 Game Policy Committee, drew attention to this, and devised the idea of "park adjuncts" which later came to be known as "national reserves", in which development of the game interest would be possible if the National Park Trustees could be granted specific and clearly defined rights therein. In developing this idea, the 1939 Committee made it clear that although the retention of the indigenous fauna undisturbed was the ideal, the practical must be to exercise such measures of control as would prevent undue disturbance to human existence or hindrance to legitimate human development which it recognized must be paramount in any park adjunct; therefore any powers or rights held by the Trustees in any park adjunct would be held on sufferance and as the result of the goodwill of those who granted, and were affected by park adjuncts. To facilitate the administration of these park adjuncts, the 1939 Committee recommended the formation of Boards of Management on which the Administration and the local inhabitants would be represented in association with the National Parks Organization. It is clear that the 1939 Committee were the first to realize the existence of an inherent weakness in the proposed dual administration of these adjuncts; "it may be admitted at the outset", they wrote, "that the conception savours to some extent of idealism, since it postulates complete sympathy and co-operation in theory and practice, between the Trustees and the persons concerned in the existence of a park adjunct". These recommendations were accepted

and were incorporated in the Royal National Parks Ordinance; under the National Reserves Regulations published in 1950 the Trustees were given control of the game interest. Fuller details of these Regulations are given in Appendix II.

15. National reserves have been tried in Kenya for nearly ten years. We believe that the 1939 Committee's basic conception of national reserves was sound in so far as it connoted regions not susceptible to national park treatment in which special attempts should be made to preserve game. But it is now apparent that the machinery set up to administer them has failed to achieve its object. The basic cause of this failure is that the conception of total protection in such areas, which is inherent under a national parks administration, is inconsistent with other human activities and interests. In our opinion an almost impossible burden has been placed on the Trustees. They, a non-Government body, have by legislation been entrusted with the preservation of wild life in national reserves, but have no control over human development which, by its very nature, must have far-reaching effects on the wild life in such national reserves. This burden has not been eased by the fact that the Government itself has, until recently, given little thought to the regulation of those activities in the interests of game preservation. The inevitable conflict between undefined human activities and the objective of total game preservation, inherent in the present system of dual control, has happened in several national reserves and has engendered misunderstanding and bitterness to the equal disadvantage of both causes [3]. This is a very serious trend which should, in our opinion, be reversed as soon as possible. The position must be regained whereby the functions of the Trustees in those areas which should retain the status of a national reserve are such that they are not antagonistic to local interests. If, in the interests of proper land usage, both game and human activities are to be subject to control, that control must, in our opinion, be exercised by the Government. We believe, therefore, that the proper and only course to follow is for the Government, through the Game Department, to retain the responsibility for game preservation and management, while the Trustees continue to develop the public amenities. And it is to be hoped that the Trustees will recognize the value to the country and the advantage to their own organization in developing the recreational and tourist attractions which such areas have to offer.

16. With these thoughts in mind we have reviewed the existing national reserves as well as other regions and agreed, first on the regions which should be earmarked for special game preservation more intensive than can be secured under "controlled area" administration and in which

Note [3].—Similar experience in the Serengeti National Park in Tanganyika has shown an inherent weakness in the system of dual control. See paragraph 52 of the Report of the Serengeti Committee of Enquiry quoted in Appendix IV, Part 2, para. 6.

the recreational interests could be developed (a summary of our recommendations for forming game reserves, together with our reasons, will be found in Chapter IV, Part 3); secondly, we considered what the legal status of such areas should be and the machinery for administering them; and thirdly we tried to devise a suitable name for them.

17. To take the last point first, we have not been able to find a better title than "game reserves". We suggest that with this general title should be included the name of the particular area of preservation, viz.: "Amboseli Game Reserve", "Namanga Game Reserve", etc. While this title is not all-satisfying we believe it indicates a local as opposed to a regional interest, and this is of some importance as we regard it as essential to associate local interests in the management of these game reserves.

18. As the Government is to retain the responsibility for game preservation these game reserves must be proclaimed under the Wild Animals Protection Ordinance, and the existing national reserves gazetted under the Royal National Parks Ordinance, will have to be abolished. At the same time, in order to enable the Trustees to develop the recreational and tourist interest in all or any of such game reserves we recommend that specific authority should be included to this effect in the Royal National Parks Ordinance. We do, however, foresee that in some of the more remote areas, outside the Native Land Units, the game management might with advantage and economy be exercised by the Trustees through their resident Warden—Marsabit is a case in point. It is for this reason that we have, under Head 3 (1) (ii) left the question of the specific functions, etc., to be assigned to the Trustees open.

19. An all-important part of the machinery of administration will be the "game reserve committee", which we propose should be set up by statutory authority under the Wild Animals Protection Ordinance. The Administration, the local inhabitants, the Game Department and the Trustees should be represented on these committees of which the chairman should normally be an Administrative Officer. These committees will be in part advisory to the Minister in charge of game, and will also exercise administrative and executive functions in connexion with day-to-day management of a game reserve. Such duties and functions should, we think, be clearly defined by Gazette Notice. The proposed amendments to the two Ordinances to give effect to the above recommendations are given in Appendix V.

CONTROLLED AREAS

20. Head 3 also envisages full use of "controlled areas" by the Chief Game Warden to implement the policy of game management in all game areas outside the national parks and game reserves. Flexibility of control

of shooting we believe to be a more realistic method of preservation than fixed reserves and shooting areas. This has been the experience in India and other countries.

21. Game is completely protected in national parks and national reserves under the Trustees and prior to 1951 was protected in game reserves under the Game Department. In the rest of the country shooting was allowed under licence. The need was felt for an intermediate form of preservation in which shooting was allowed under permit, but under strict limitation and control and the Wild Animals Protection Ordinance, which was redrafted in 1951, contained provision (section 7) for "controlled areas" in which no person shall hunt, photograph, etc., without a Controlled Area Permit. These permits are issued by the Chief Game Warden at his complete discretion and the Minister shall specify the fees to be paid, which may vary in respect of the different controlled areas, depending on the varying attractions they offer to hunters. All such fees are paid to the local African District Council or such other fund as the Governor may direct. In 1948 the Southern Game Reserve was de-gazetted and replaced in part by four national reserves, and in 1951 the remaining area was declared a controlled area.

22. We therefore propose that the remaining Northern Game Reserve be abolished [4] and that the Minister declare all areas of the Colony in which there is a game interest and which are not under the control of the Trustees or are game reserves or private land, to be controlled areas. Where localities of game interest in "native areas" or in the Northern Province have been declared controlled areas we recommend that no additional District Commissioner's permit to shoot be required in writing has been issued by the Chief Game Warden under section 7 of the Wild Animals Protection Ordinance; but the Chief Game Warden should continue to maintain close liaison with the administration before issuing such a permit. Section 18 of the Wild Animals Protection Ordinance will require amending to give effect to this.

23. Controlled area fees may well be varied in different localities and from time to time in accordance with game management requirements. In some areas, particularly those adjacent to a national park or a game reserve, it may be necessary to enforce total prohibition of shooting. No amendment to the Wild Animals Protection Ordinance will be required to give effect to this. For the proper exercise of this control the issue of all game licences and permits should, as far as possible, be centralized in the office of the Chief Game Warden. We understand that the Ministry is already proceeding on the lines of these recommendations.

Note [4].—Note in explanation. With minor boundary modifications the area of the Northern Game Reserve was, in 1950, declared the Marsabit National Reserve, but no steps were taken to de-gazette this game reserve.

NATIONAL PARKS

24. Sub-head (2) of Head 3 of the draft Policy Statement and Head 4 which deal with the Royal National Parks and the functions of their Trustees, enshrine matters of fundamental importance.

We believe that no one can reasonably contest the argument that game is, in the last resort, only finally secure in areas where it can be totally protected, i.e. in national parks. This was clear to the signatories of the London Convention of 1933 [5] and experience since then has fully confirmed it. The Convention also laid down that the boundaries of national parks, once they have been proclaimed, should be as permanent as possible. The Convention further declared that such parks should be under public control. We endorse the wisdom of these decisions.

25. The essential condition governing the success of a national park is that it should only be established in an area where there are no human rights, legal or ethical, or where such rights if they exist are so limited that they can be securely and equitably controlled to ensure that they do not conflict with the primary objective, the complete and absolute preservation of the flora and fauna. This principle was also clear to the signatories of the London Convention and is now universally accepted. It does, however, limit severely the areas available for such purposes, even in the vastness of Kenya. It is for this reason that we have rejected the view that the Government should establish a number of national parks and should accept as inevitable the virtual extinction of game elsewhere. We have accordingly recommended the continuance of a modified form of game reserve (paragraphs 16-18). We recommend, however, that the Government should consider establishing new national parks in areas where it is possible to do so. Among such are certain portions of the forested mountain catchment areas where the complete protection of the vegetative cover is essential in the interests of water conservation. We have also drawn attention in paragraph 46 to the smaller, but important, contribution which the creation of nature reserves in other forest areas can make to the preservation of wild life.

Our specific recommendations for the establishment of new national parks, and for additions to existing parks, are given in Chapter IV, Part 2.

STANDING GAME ADVISORY COMMITTEE

26. Head 3 covers the setting up of a Standing Game Advisory Committee. The present more accessible national parks and national reserves are not adequate to ensure the long-term preservation of wild life in Kenya, and we have made recommendations for creating additional national parks and game reserves which are not necessarily

Note [5].—See Appendix II.

exhaustive. Some of our recommendations are long term, and cannot be put into their final form without more scientific knowledge than we at present possess; much will depend on the success achieved in changing the attitude of the African to game preservation. The fulfilment of a long term policy for game preservation will, therefore, be a continuing process and early in our deliberations we decided that there must be a permanent body to watch over this process and to advise the Minister, particularly on the determination of proper land usage of areas where there is apparent or potential conflict between human activities and the preservation of wild life. We have already referred to this in paragraph 11 above. We therefore recommend the setting up of a Standing Game Advisory Committee. A suggested constitution for such a Committee together with its terms of reference is given in the Summary of Recommendations—Chapter IV, Part 1.

Publicity and Propaganda

GENERAL

27. Head 5 of the draft Policy Statement deals with the vital importance of publicity and propaganda. Public opinion has been a very strong factor in influencing the Government to take steps to preserve game, but up to now this opinion reflects the attitude of the more advanced communities. Unless African public opinion can be educated to appreciate the value of preserving game, no long-term policy for such preservation can be effective. It is only in recent years that the world at large has come to appreciate that steps must be taken to protect this heritage where it now exists but whence it is fast disappearing. It will be much more difficult to change the African's attitude to game. For generations he has treated game either as a danger or as a readily available source of food. He at present interprets this comparatively new desire to preserve game as a further peculiarity of the European, more particularly so, as the European has often paid scant attention to such preservation [6]. But African co-operation must be sought. There are two main aspects to this problem, the first covers national parks and the second the additional areas outside national parks where varying degrees of conservation are necessary if wild life is to continue.

PROPAGANDA FOR NATIONAL PARKS

28. Although the primary purpose of a national park is the preservation for posterity of wild life in its natural state, facilities should, so far as possible, be given to the public for observing the fauna and flora therein. The existence of a national park is dependent on public support: the ultimate majority of public opinion will be African, and a basic duty therefore rests upon the Government with the help of the

Note [6].—See paragraph 9 of Note on Proper Land Usage, Appendix IV, Part 1.

Trustees to seek the means of bringing about the widespread appreciation by the African of the aesthetic and economic value of wild life and by educating him to recognize that national parks are international assets which bring prestige and wealth to the country.

29. An effective method of encouraging an interest in national parks is for parties to be taken on conducted tours and a start has already been made by the Trustees. The emphasis should be on the present African leaders, both national and local, and on the future leaders of public opinion through the schools. The co-operation of the Education Department must be available and greater use must be made of the broadcasting services and films. We recommend that both the Trustees and the Game Department include in their estimates sufficient provision to enable a determined effort to be made to interest the African in the preservation of wild life on the lines indicated above.

PROPAGANDA IN GAME RESERVES AND CONTROLLED AREAS: CONTROL OF GAME AND COMPENSATION

30. A different line of approach is required when dealing with the African whose livelihood is directly affected by the presence of game. The aim in these areas must be to preserve game in such a way that the interests of game and of humans will be complementary and will be seen by the local inhabitants to be complementary [6]. We consider, therefore, that a clearly defined policy of control and compensation must be laid down, particularly in pastoral areas, as it is in these areas that much of the game which should be conserved is still to be found. The first requisite is that in areas where the local authorities have instituted proper grazing and stock control, based on a sound scientific knowledge of the area, there must be adequate control of game. Within the limits of its resources the Game Department already exercises such control, but its resources must be increased to enable it to exercise effective control. This has already been covered under paragraph 13 above. Secondly, if, as we maintain, the continuing presence of game in selected pastoral areas is an asset of economic value to the country as a whole, then it is only reasonable that the community expected to share its land with the game should receive a direct financial benefit and that the individual suffering injury or damage, resulting directly from the policy of preservation, should receive some compensation.

31. In paragraph 35 below, we deal with the general question of responsibility for the control of wild animals, and it may be said that the payment of compensation for damage envisaged above offends against the general principle that the Government accepts no such liability in law: but we hope that we have made it clear that this principle cannot in equity be applied in areas of legitimate human

Note [6].—See paragraph 9 of Note on Proper Land Usage, Appendix IV Part 1.

development where it is the declared aim of Government to afford game varying degrees of protection. This is in fact already recognized, whereby African district councils pay some compensation at their discretion for damage done to persons or property out of the revenue received by way of payments from the Trustees in national reserves or from controlled area fees. The principle that it is the responsibility of the local authorities to assess and pay this compensation must be maintained, but their receipts from those sources must be adequate to cover not only this liability, but also to allow for a reasonable contribution to general revenue as their share in the fruits of the economic exploitation of game in their districts. The Trustees should therefore be invited to increase their contributions and controlled area fees should, where possible, be increased. If the resultant revenue proves inadequate, it should be supplemented by a direct subvention which would vary and should be assessed on the "game" importance of the areas, and the degree of control to be exercised by the Game Department. It will be highest in those portions of the Native Land Units which are to be declared game reserves and in which game is to be given the maximum protection consistent with ordered human development; we envisage that it will be one of the more important functions of the Game Reserve Committees to resolve, or if this is not possible, to advise on, all matters relating to payments to local authorities.

32. We realize fully the inherent difficulties of attempting to preserve game in the main pastoral areas of Kenya, but we are convinced that it is only by recognizing the legitimate rights of, and obligations to, the local inhabitants that the present antipathy to game will be overcome and the pastoralists will come to realize that in many areas of their country, particularly the marginal areas, the direct return from conservation of game may well exceed that from stock.

Responsibility for Control of Wild Animals

33. Head 6 covers the general policy we recommend for control of wild animals. We have already communicated the tenor of our recommendations under this head to the Ministry of Agriculture, but in view of the widespread misunderstanding on this subject, and in view also of the debate in Legislative Council (21-10-57), where the Minister informed the Council that this Committee would be asked to examine the position further and to make recommendations, we will deal with this in some detail.

34. It is necessary first of all to emphasize the clear distinction between those wild animals classed as vermin and the game animals scheduled as such under the Wild Animals Protection Ordinance. It has become the practice, in regard to private land, to apply the term vermin to any animals which do damage in any form. In the context of this paragraph the term vermin applies only to non-scheduled game animals.

35. Although the Government has accepted certain obligations in regard to scheduled game animals, in order to protect a national asset, it must be clearly stated that game animals are not Government property. The presence of wild animals on agricultural land is a natural hazard and under the Wild Animals Protection Ordinance everyone has the right to hunt and kill any animal to protect his person from injury or his property from damage. So far as vermin are concerned this right is completely unrestricted; so far as game animals are concerned, and in order to prevent abuse, the Ordinance imposes certain safeguards in regard to reporting and to the disposal of the trophy after the animal has been killed. It would be wrong to depart from the universally recognized principle that a Government accepts no liability in law for injury and damage done by wild animals [7]. To do otherwise would create an impossible situation.

36. It has even been suggested that since the depredations of vermin decreased the profits of the farmers and so decreased the overall revenue of the Colony, it was equitable that the cost of vermin control should in the first instance be borne out of general revenue. We reject this suggestion. Weeds, disease, floods, etc., also decrease profits, and while we agree that the Government should within its resources seek to assist all farmers to overcome the natural hazards of farming through its technical services, no Government could accept financial liability, even in the first instance, for loss of profits resulting from vermin, weeds, etc. The control of vermin is, and must remain, the responsibility of the individual occupier or local authority, but Government departments should advise and give such help as is possible where the presence of vermin reaches epidemic proportions, and becomes a serious threat to agriculture and stock. The Game Department should, however, continue to retain the ultimate responsibility for the policy governing the control of scheduled game. We recognize that it will be difficult for the Game Department to achieve complete control of game animals, but we recommend that within the limits of finance available the staff of the Department should be increased to make such control as effective as possible.

Fauna Research

GENERAL

37. The successful management of a national park or any other area where game is to be preserved, as well as the ascertainment of the proper land usage of areas where there are conflicting interests, are dependent on the proper application of ecological knowledge. During the course of our deliberations we have been faced continuously with problems which cannot be solved on the scant information available.

*Note [7].—*While there can be no exception to this general principle, circumstances in which we consider there is a need for indirect compensation to be paid are dealt with in paragraphs 30 and 31 above.

This need for basic knowledge has been brought to the notice of the Government by many wild life conferences which have been held in recent years [8].

Much study and thought has been given to the science of game management in other countries, particularly in the United States of America, where we are informed no fewer than six universities have a specialized degree course in this subject. In Kenya we have some of the most varied and spectacular areas of wild life left in the world, and although much lip-service has been paid to the preservation of wild life, it is unfortunate that the Kenya Government and the Government of the United Kingdom have done so little towards this basic requirement for the preservation of wild life.

38. We cannot, therefore, overstress the importance of initiating the now long overdue research work without which it is impossible to give substance to an informed policy to guide future wild life preservation in Kenya and consistently to carry out that policy. As research must cover the whole country, including the national parks, the responsibility for initiating it rests with the Government and we have already in paragraph 13 above recommended the appointment of a qualified scientist and a Fauna Research Unit should be set up as a branch of the Game Department with proper laboratory facilities. In addition to this permanent addition to the staff of the Game Department we also recommend most strongly that a prominent ecologist be invited at an early date to undertake a more general ecological survey of some of the more important game areas (e.g. Amboseli and the Nairobi Royal National Park) and to advise generally on research priorities.

CENSUS

39. A reasonably accurate knowledge of the numbers of the more important game animals and their seasonal distribution over as wide an area as possible is of fundamental importance, not only to the conduct of research but to guide preservation in game reserves and the licensing and hunting policy in controlled areas. We therefore recommend that a census in selected areas be undertaken at regular intervals. In appropriate cases a successful and cheap method of carrying out a census is by aerial count and the conduct of such a count is now covered by recognized techniques developed in America and elsewhere.

EAST AFRICAN AGRICULTURE AND FORESTRY RESEARCH ORGANIZATION

40. It is not perhaps generally known that much of the basic research undertaken by the East African Agriculture and Forestry Research Organization has a direct bearing on many of the problems

Note [8].—Nairobi Fauna Conference (1947); African Rhinderpest Conference (1948); African Regional Conference (1949); The Victoria Falls Conference (1950); The Tengeru (1950); The International Conference at Bakuvu (1953); Fauna of British East Africa and Central Africa, Entebbe (1956).

Alternative Livelihood for Native Hunters

44. In our Interim Report we drew attention to the need to find some alternative form of livelihood for the smaller tribes, particularly the Waliangulu whose customary and only occupation for generations has been hunting.

In the Note on Proper Land Usage in Relation to Wild Life (Appendix IV, Part 1) we have pointed out that in many of the semi-arid areas of Kenya where any form of agricultural development would be uneconomic, wild animals, if properly managed, would produce a reasonable return in meat and other products. Such an area is the semi-desert zone lying between the coastal strip at Kilifi and the eastern boundary of the Tsavo Royal National Park. This is the traditional hunting ground of the Waliangulu and, at the suggestion of the Kenya Wild Life Society, a scheme has been prepared by the Game Department for the introduction of a Game Management Project covering some 2,000 square miles of this country north of the Galana River. This scheme, if successful, would be self-supporting and would not only provide a reasonable livelihood for about 1,000 Waliangulu and so lessen the chances of their return to a life of professional poaching, but should also have the beneficial effect of reducing the amount of elephant control at present necessary in the coastal belt. We therefore recommend that some such scheme be given a trial. If results should prove of value it might lead to the introduction of similar schemes elsewhere.

Hunting

45. There is an increasing trend towards photographic *safaris*, but the demand for hunting will continue. It provides an appreciable revenue to the Colony both direct and indirect; it is also a recognized form of game management and should be encouraged. It can be integrated into the system of management of controlled areas mentioned in paragraphs 20-23 above. The control should be based on a knowledge of the requirements of each area. Every encouragement, including substantial reductions in licence fees, should be given to hunting parties to visit areas where control measures are necessary, particularly elephant control. Provision for this is already included in the Wild Animals Protection Ordinance under section 14 covering the issue of Chief Game Warden's permits.

Nature Reserves

46. The gazetted forest reserves are valuable and natural areas for the protection of wild life and particularly of the smaller and less spectacular mammals which are often of great scientific interest. Under the Forest Ordinance the Minister may declare any forest area or part thereof to be a "nature reserve" for the purposes of complete protection of the flora and fauna. Except that nature reserves are not under public

control they are in many ways analogous to the "strict natural reserves" of the 1933 London Convention. Full use of this form of protection should be made where suitable.

Financial Aid

47. Wild life, where it still exists, occurs mainly in the undeveloped and unindustrialized countries where the needs of development bear heavily on the limited funds available. This is particularly true of Kenya and in the introduction (paragraph 7) we have drawn attention to the fact that if the valuable asset of wild life is to be preserved it will cost money which Kenya at the present time can ill afford. But steps to preserve this fast diminishing asset must be taken now if it is not to be lost, not only to Kenya but to the world at large. We would suggest that this preservation should be regarded as a world responsibility, and in view of the widespread international interest shown in the game of East Africa we are hopeful that other countries may recognize this responsibility. We therefore recommend that the Government and the Trustees should do all in their power to seek financial aid from international organizations and national societies interested in the preservation of wild life, particularly in the field of fundamental research which will add to the general fund of knowledge and be of benefit to all countries which seek to preserve their wild life.

Minority Report

48. The Director of the Royal National Parks finds himself unable to accept the recommendation that the proposed game reserves should be administered under the Wild Animals Protection Ordinance (paragraph 18). His minority report is attached as Chapter VI.

Publication of Report

49. There is widespread public interest in game preservation and there has been much public comment and criticism that so little has yet been heard of the deliberations of our Committee. As we have already mentioned, all the recommendations put forward in our Interim Report have either been implemented or are under action, and the Ministry has already taken action on some of the matters dealt with in this Report (e.g. Controlled Areas, paragraphs 20-23). The full picture of a co-ordinated game policy will, however, be incomplete without our Interim Report. and we therefore recommend most strongly to Your Excellency that this Report, together with our Interim Report, be published and that this be done at the earliest possible moment.

CHAPTER IV—SUMMARY OF RECOMMENDATIONS

Part 1—General Recommendations

POLICY

50. (1) THAT the Government declares its attitude to and policy for the preservation of wild life in Kenya in a White Paper (paragraph 8).

(2) THAT that policy be based broadly on the acceptance of the two following main principles—

(i) the presence of wild life has an aesthetic and cultural value and its preservation is a duty which the Government and people of Kenya, who possess it in an almost unique degree, owe to posterity and to the world at large;

(ii) by the application of the concept of proper land usage, based on sound ecological knowledge, the preservation of wild life has a rightful place in the balanced economic development of Kenya (paragraphs 9-12).

GAME DEPARTMENT

(3) THAT four game wardens and one qualified research scientist (ecologist), with appropriate staff, be added to the permanent establishment of the Game Department (paragraph 13) (*see* also Recommendation 23).

GAME RESERVES

(4) THAT national reserves under the Royal National Parks Ordinance be abolished (paragraph 18).

(5) THAT section 3 of the Wild Animals Protection Ordinance which constituted the old game reserves be repealed and that a new type of game reserve be created to cover those areas which, by reason of their faunal, floral and scenic interest, should be developed for the preservation of wild life and for recreational enjoyment but which cannot be declared national parks because other human interests exist therein (paragraph 18).

(6) THAT a prefix be added to the general title "Game Reserve" to indicate the specific area (paragraph 17).

(7) THAT the Government retain the control of game in game reserves. In exercising this control the Government should have regard to its declared policy of ensuring the maximum preservation of the fauna, consistent with other human activities (paragraphs 10 and 15: compensation where legitimate human interests are affected is covered by recommendation 17).

(8) THAT the Trustees be invited to retain an interest in game reserves. Their main function would be to manage the development of the reserve for recreational purposes (paragraphs 15 and 18).

(9) THAT local game reserve committees be set up, with statutory recognition, to advise the Minister generally on the conduct of each game reserve and to exercise certain defined administrative and executive functions in connexion with the day-to-day management of the reserves (paragraph 19).

(*N.B.*—The proposed amendments to the Royal National Parks Ordinance and the Wild Animals Protection Ordinance to give effect to the above, together with the suggested constitution of the proposed game reserve committees are given in Appendix V. Specific recommendations for the creation of game reserves are given in Part 3 of this Chapter.)

CONTROLLED AREAS

(10) THAT all areas of the Colony where there is a game interest and which are not under the control of the Trustees or a game reserve or private land, be declared Controlled Areas under section 7 of the Wild Animals Protection Ordinance (paragraph 22).

(11) THAT no District Commissioner's permit under section 18 of the Wild Animals Protection Ordinance be required in those parts of the native areas and the Northern Province declared Controlled Areas (paragraph 22).

To give effect to this, section 18 of the Wild Animals Protection Ordinance shall be amended by the addition of the following proviso:—

“Provided that this section shall not apply to any area declared a Controlled Area under section 7 (1).”

(12) THAT the degree of control to be exercised in Controlled Areas and the fees to be charged be varied to accord with the requirements of game management appropriate to the locality (paragraph 23).

NATIONAL PARKS

(13) THAT, as the complete preservation of game can only, in the last resort, fully be assured in national parks, existing parks be maintained and new national parks be established, where possible (paragraph 25).

(Specific recommendations under this head, together with supporting reasons, are given in Part 2 of this Chapter.)

STANDING GAME ADVISORY COMMITTEE

(14) THAT the Wild Animals Protection Ordinance be amended by the addition of the following section :—

“ADVISORY COMMITTEE

2A. (1) The Minister shall, by notice in the Gazette, appoint a Standing Game Advisory Committee for the purpose of advising him on any matters connected with the fulfilment of the Government's game policy.

(2) Such Advisory Committee shall consist of:—

The Secretary to the Ministry.

The Chief Game Warden.

A representative of the Ministry for African Affairs.

A representative of the Ministry for Agriculture, Animal Husbandry and Water Resources.

The Director of the Royal National Parks or his representative.

Three other persons, having an interest in the preservation of wild life, appointed by the Governor, of whom one shall be appointed chairman by the Governor.”
(Paragraph 26.)

PUBLICITY AND PROPAGANDA

(15) THAT the Government and the Trustees accept as a major responsibility the importance of educating the African public to recognize that wild animals are an asset and a possession most valuable to themselves and which, once destroyed, can never be replaced (paragraphs 27-28).

(16) THAT to achieve this objective, full use be made of schools and other social institutions, and the broadcasting services and films (paragraph 29).

(17) THAT in areas where it is the declared policy of Government to give game varying degrees of protection and where such protection may be in conflict with other human interests, the local authorities must be given a financial interest in the economic exploitation of game adequate to quicken the local interest in such preservation and to enable them to cover compensation for damage to persons or property resulting from such protection (paragraph 30).

(18) THAT to achieve this end the Controlled Area Fees should be raised where possible and the Trustees should consider increasing their contributions to the African District Councils. Where these sources of revenue are not adequate, a direct subvention, assessed on the game importance of the area, should be paid from funds provided for in the estimates of the Game Department (paragraph 31).

(*N.B.*—At present the Controlled Area Fees and payments made by the Trustees are credited to and lost sight of in the general revenue of the African District Councils, and such propaganda value as these payments should undoubtedly have is diminished. We therefore commend to the Administrative Authorities the educative value of earmarking a reasonable proportion of the funds received for some public purpose or development of benefit to the section of the community directly affected by the presence of wild game in its midst.

RESPONSIBILITY FOR CONTROL OF WILD ANIMALS

(19) THAT the control and destruction of vermin, i.e. non-scheduled game animals, on private land remain the responsibility of the individual occupier or local authority (paragraph 35).

(20) THAT, where the presence of vermin reaches epidemic proportions and has become a serious threat to agriculture or stock, the appropriate Departments of Government advise and give as much help as is possible within their resources (paragraph 36).

(21) THAT the Game Department continue to retain its responsibility for the policy governing the control of scheduled game animals on private land and in Controlled Areas; and

(22) THAT the Government, recognizing a responsibility arising from its declared game policy, shall within the limits of finance available make such control effective (paragraph 36).

FAUNA RESEARCH

(23) THAT a Fauna Research Unit be set up as a branch of the Game Department (paragraph 38).

(24) THAT an ecologist be invited at an early date to undertake a general survey of the more important game areas (paragraph 38).

(25) THAT a regular census of all the most important species of wild animals be undertaken (paragraph 39).

(26) THAT close contact be maintained with the Research Organizations of the East African High Commission (paragraph 40).

CO-OPERATION WITH OTHER AFRICAN TERRITORIES

(27) THAT the regular exchange of faunal knowledge between other African territories and, in particular, between the three East African territories be maintained and strengthened (paragraph 41).

(28) THAT liaison be maintained with neighbouring territories where preservation areas span or are adjacent to inter-territorial boundaries (paragraph 41).

POACHING

(29) THAT constant vigilance and action be maintained against poachers and in particular those who trade in illegal trophies (paragraph 42).

(30) THAT a permanent anti-poaching Mobile Field Force be maintained under the control of the Chief Game Warden, but with the full co-operation of the Trustees when appropriate and of the Commissioner of Police (paragraph 42).

(31) THAT the proviso to section 12 (a) of the Royal National Parks Ordinance be amended by the inclusion of the words "or to a Game Officer" between the words "Kenya Police" and the words "requiring to enter" (paragraph 43).

ALTERNATIVE LIVELIHOOD FOR NATIVE HUNTERS

(32) THAT a Game Management Scheme be established north of the Galana River for the Waliangulu Tribe (paragraph 44).

HUNTING

(33) THAT the issue of licences to shoot game be integrated into the system of game management in the Controlled Areas (paragraph 45).

(34) THAT encouragement be given to hunting parties to shoot in all areas where control of wild life is required in the interests of human development (paragraph 45).

NATURE RESERVES

(35) THAT full use be made of Nature Reserves where suitable (section 6, Forest Ordinance, cap. 176) (paragraph 46).

FINANCIAL AID

(36) THAT steps be taken to seek financial aid from sources outside Kenya (paragraph 47).

Part 2—Existing National Parks and Recommendations for the Establishment of New or Additions to Existing National Parks with Description of Area and Reasons

51. (1) NAIROBI ROYAL NATIONAL PARK (44 square miles).

TO remain as it is. By reason of its proximity to Nairobi it is a unique attraction (in 1957 some 105,000 people visited it) and every effort must be made to preserve it. (See also Ngong Game Reserve, paragraph 52 (3) below.)

(2) TSAVO ROYAL NATIONAL PARK (8,069 square miles).

(a) Existing.

TO remain as it is with the exception of small adjustments on the western boundary known as the Iltital/Njugini exchange. In this adjustment some 3,630 acres of the park in the vicinity of the Iltital Spring is to be exchanged for a similar area of the Masai Land Unit south of the Njugini River. In addition some 5,800 acres

of Crown Land west of the latter is to be added to the park. (This was dealt with in our Interim Report and has been accepted.)

(b) *Addition*—About 400 square miles.

THAT an area of the Eastern Chyulu Range bounded on the north by the southern boundary of the Masai/Machakos Controlled Area (Government Notice No. 788/52), on the west by the eastern boundary of the Masai Land Unit, on the south by the northern boundary of the Tsavo National Park (West), and on the east by a line based on the edge of the lava flow, to be determined by agreement between representatives of the Administration, ALDEV and the Game Policy Committee, be declared a national park and be added to the Tsavo Royal National Park.

PROVIDED that the Government reserves the right in consultation with the Trustees to pipe water beyond the boundaries of the park.

(c) *Addition*—About 113 square miles.

THAT the present Masai/Machakos Controlled Area, the boundaries of which are given in Government Notice No. 788/52, be declared a national park and be added to the Tsavo Royal National Park.

PROVIDED that the Government reserves right in consultation with the Trustees—

- (i) To pipe water beyond the boundaries of the park;
- (ii) to arrange compensation for any development already carried out in the area;
- (iii) to continue the anti-trypanosomiasis research.

A description of the Chyulu range of mountains was given in our Interim Report. The summits of the range are thickly forested, the upper slopes are grass covered but the foothills, particularly on the eastern side, consist of vast lava flows covered with dense tsetse fly infested bush. In that report we referred in some detail to the problems raised by game preservation in the Eastern Chyulus. One of the main problems confronting us was the determination of the proper land usage for certain areas of unalienated Crown Land situated between the eastern edge of lava flows and the railway line. It had been proposed that these areas should be scheduled for pastoral development and we recommended that there should be no change in the status of the unalienated Crown Land in the area until we had given the matter further consideration. This we have now done and as somewhat different considerations have influenced our proposals for the two additions to the Tsavo Royal National Park we will deal with them separately.

EASTERN CHYULUS.

The Chyulu range of mountains is an important water catchment area and there is universal agreement that the upper slopes must be fully protected from all development: in our opinion this can best be achieved by giving the eastern slopes the status of a national park. (The western slopes which form part of the Masai Land Unit are at present a national reserve—*see* paragraph 52 (5) below.) With the exception of the Darajani sector in the south we lay no claim to the proposed settlement areas in the section of the Eastern Chyulus now under discussion. All that remains for decision is the most suitable eastern boundary for this addition to the Tsavo Royal National Park. The 4,000-foot contour line has been suggested: but as there is an appreciable fall in the general level of the country much of the tsetse fly infested bush would thereby be included in the land scheduled for development. These more recent lava flows are incapable of development except at a prohibitive cost, but would form a most valuable buffer between the grazing areas below and the areas of preservation above. A more satisfactory eastern boundary would therefore be one which follows approximately the line of the recent lava flows which are clearly defined on the land. We have consulted the Executive Committee of the African Land Development Board who are in full agreement with our views, subject to the proviso mentioned and we therefore recommend accordingly.

Access to water in the Kibwezi Forest Reserve would be essential to this new park.

THE MASAI/MACHAKOS CONTROLLED AREA (more commonly known as the Makindu Kiboko Area).

This region which is bounded on the north and south by the Kiboko and Makindu Rivers, lies at the north end of the Eastern Chyulu range and is contiguous to the addition proposed above. The countryside is more open but is still heavily infested with tsetse fly. It also formed part of the unalienated Crown Lands scheduled for Kamba development (known as the Kiboko Grazing Area) and it has been estimated that the maximum carrying capacity after an expensive clearing operation would be between 700 and 1,000 head of cattle. In anticipation of this the African Land Development Board has sunk a successful exploratory borehole near Makindu Hill and a limited amount of bush has been cleared. But considerable progress since that date has been achieved in restoring fertility in the Kamba Land Unit and the view of the Administration is that such of the limited funds as are available for development in areas outside the Land Unit will be required in the first instance for more profitable development east of the railway line. It is therefore unlikely that even if this area is eventually required for development it will be so required for many years.

It carries a great variety of game, particularly in the dry season, as it affords the only permanent watering place for a large block of country stretching from Emali to the Tanganyika boundary. The inevitable long-term effect of development will be the disappearance of game from a surrounding area of several hundred square miles. It is therefore of the greatest importance that this area be preserved for game and as it lies alongside the main Nairobi-Mombasa road it is easily accessible and will prove a great attraction for travellers and tourists. It is also at the present time the focus of trypanosomiasis research on the direct relation between game and tsetse fly, and Dr. Glover (Assistant Director of Zoology, Veterinary Department) has informed us that, as this area held a wide variety of game, it was ideally suited to such experiments, but it was important to their proper conduct that the cattle in the area were restricted to the Department's experimental herd.

This then is an area where the obvious interests of game preservation are in direct conflict with a potential if limited human interest and the question resolves itself into one of proper land usage: in our view the answer is clear. The economic benefit to the Colony to be derived from the preservation of game will far outweigh the somewhat problematical value of this area as a grazing area for a few hundred head of cattle, an aim which can only be achieved at considerable expense to the taxpayer. The Executive Committee of the African Land Development Board has been consulted and has agreed with this view provided the Government retains the right to install water supplies for use outside the area and arranges for compensation for any development carried out and also to continue the anti-trypanosomiasis experiments. The Administration also agrees, but in view of the implied promise given to the Akamba (referred to in our Interim Report) considers that an alternative area should be made available to them for development. We understand that negotiations for such an alternative site are already in hand. A further requirement is that alternative arrangements be made for watering the few cattle at present using the springs of the Kiboko near the main road if it became necessary to exclude them from the park.

SUMMARY

Although there is a game interest in the Eastern Chyulus the underlying reason for our recommendation is that the complete protection of this important catchment area. In the Makindu Kiboko section the overriding reason is the protection of a small area of vital importance to the preservation of game over a very much wider region.

(3) MOUNT KENYA ROYAL NATIONAL PARK (228 square miles).

(a) Existing.

To remain as it is.

(b) Addition—about 20 square miles.

THAT two corridors of land, one on the east side from Chogoria, about 12 miles, and the other on the west from Naro Moru, about eight miles, be added to the park.

PROVIDED the Government retains the right of access to and across the corridors for ordinary administrative or department purposes.

The Trustees have long sought to include in this park these two corridors of land to provide means of access to the Mountain Park under their control. The present park contains only a few limited forested areas and the Trustees claim that the western corridor in particular, in addition to providing access to the park, includes land of spectacular scenic value with high floral interest and as such should be given the status of a national park: furthermore that such roads of access should, for administrative convenience, be under the control of the Trustees to permit erection of toll gates in order to control the entry of the public to the park and levy toll fees. The Forest Department oppose this development on the ground that the forests on Mount Kenya are gazetted Crown Forests and such corridors which are not under full Government control will hamper forest administration. By a majority our Committee voted in favour of these corridors being included in the park. It should be pointed out that the Naro Moru corridor is a Nature Reserve under section 6 of the Forest Ordinance.

(4) ABERDARE ROYAL NATIONAL PARK (228 square miles).

(a) Existing.

To remain as it is.

(b) Addition—about 100 square miles.

THAT an area of gazetted Crown Forest, north of the Tree Tops Salient, to include a bongo habitat, the boundaries of which shall be determined after appropriate investigation, be added to the Aberdare Royal National Park.

(5) MARSABIT ROYAL NATIONAL PARK (about 39 square miles).

THAT the forested area of Marsabit Mountain of about 39 square miles, the boundaries of which lie within those of the Marsabit Forest Reserve (Proclamation No. 44/32), be declared the Marsabit Royal National Park.

PROVIDED that the Government in consultation with the Trustees reserves the right—

- (i) to direct policy in regard to the conservation of water and forests;
- (ii) to pipe water beyond the boundaries of the park.

This area lies within the present Marsabit National Reserve. The scenic value of the mountain ranges of Northern Province which rise like green islands in a vast desert-like sea is very great. But their greatest value lies in the water they conserve. Marsabit Mountain with its numerous craters and abundance of dense forest is the best known of these mountains: it is the home of elephant which carry unusually heavy ivory, buffalo, rhinoceros and greater kudu which are comparatively rare in Kenya. In 1932 the forested area of some 45 square miles was declared a Forest Reserve and was scheduled for complete protection. Recently the Trustees have erected a *safari* lodge set in the seclusion of the forest on the rim of one of the smaller crater lakes only some two miles from the small township of Marsabit. This, then, is an area which has all the necessary attributes of a national park. The Administration agrees, provided the schemes to pipe water beyond the boundaries of the Forest Reserve, considered necessary to preserve the forest, are continued, and provided also that certain areas of the Forest Reserve where there are recognized human rights (collection of timber, etc.) are excluded from the proposed park. As it is important that there should be no over-lapping of responsibility in this remote area the Chief Conservator of Forests also agrees, provided the Trustees accept responsibility for the Forest Reserve outside the proposed park, referred to above, and provided further that the Government retains the final responsibility for the conduct of forest conservation. The reason for the latter is as follows. In the years of drought a very large number of game became concentrated on the Mountain and in order to preserve the vital Forest Reserve some increase of game control, particularly of elephant, may become necessary. We have accepted the above provisos and have recommended accordingly.

(6) UASO NYIRO ROYAL NATIONAL PARK (about 22 square miles).

THAT an area of about 22 square miles in the vicinity of the Royal National Park's *safari* lodge on the left bank of the Uaso Nyiro River be declared the Uaso Nyiro Royal National Park.

The Uaso Nyiro *safari* lodge, which is the gateway to the present Marsabit National Reserve (*see* paragraph 52 (7) below), is becoming increasingly popular; it is pleasantly situated on the forested bank of the river and nearby is a watering place much used by elephant and other game in the dry season. It is also used by the Samburu stock. There is, in our opinion, a very strong case for giving this small area the seclusion

and protection afforded by the status of a national park. As there are many other watering places available to the Samburu stock along the 60 miles of river, their exclusion from this area would at the most amount to an inconvenience.

On the right (south) bank shooting is prohibited within one mile of the river. It is recommended that the Chief Game Warden extend this area of prohibition to a line approximately five miles south of the river, and in order to protect the amenities of the national park the Administration should take such action as is possible to prevent the disturbance of game in the area immediately south of the park.

(7) MOUNT ELGON ROYAL NATIONAL PARK (65 square miles).

THAT the Mount Elgon Nature Reserve as gazetted under the Forest Ordinance be declared the Mount Elgon Royal National Park.

PROVIDED the Government, in consultation with the Trustees of the Royal National Parks, retains the right to direct policy in regard to forest conservation and fish management.

This region is one of the high floral and considerable faunal and scenic interest. It is in every way suitable for the status of a national park and there is much local public support for this proposal.

Part 3—Recommendations for the Establishment of Game Reserves with Description of Area and Reasons

52. (1) AMBOSELI GAME RESERVE (about 200 square miles).

THAT the swamp and forested area of about 200 square miles, in the vicinity of the Ol Tukai Lodge, be declared the Amboseli Game Reserve, the boundaries of which be fixed when a decision has been taken on the proposed alternative water supplies.

This area is part of the present Amboseli National Reserve which lies within the Masai Land Unit. The faunal importance of Amboseli is well known and accepted: full details of our proposals to safeguard the game interest in this unique area were given in our Interim Report.

In brief the aim, in the interests of proper land usage, and so ultimately of the Masai themselves, is to limit the number of Masai stock using the swamp area to that section of the Masai which traditionally waters there, by the provision of a series of watering points on the perimeter of the swamp area. Watering at these points should be controlled and be integrated into the Ilkisongo Grazing Control Scheme.

(2) NAMANGA GAME RESERVE (about 60 square miles).

THAT an area of approximately 60 square miles to contain Ol Donyo Orok, often referred to as Namanga Mountain, be declared the Namanga Game Reserve. The boundaries of this game

reserve, which should follow approximately the line of the foothills, should be determined at an early date by agreement between the Provincial Commissioner, Southern Province, the Director of the Royal National Parks and the Chief Game Warden.

Namanga Mountain which is within the Masai Land Unit lies on the western boundary of the present Amboseli National Reserve and rises to 8,000 feet. It is well known to travellers on the road to Arusha: what is perhaps not so well known is that the extensive mountain plateau carries a dense forested cover which is the habitat of elephant, rhinoceros, buffalo, etc. The crop to be harvested from this forest is water, not timber or grazing, and the control of this catchment area is vital to the future of the population, stock and game in the area below the mountain. Water should, where possible, be piped to lower levels. The preservation of the flora and fauna is the natural consequence of proper forest conservation and were it not for the fact that Namanga Mountain lies within a native land unit we would have recommended that it be given the status of a national park.

(3) **NGONG GAME RESERVE** (455 square miles).

THAT the present Ngong National Reserve, declared as such by Gazette Notice No. 402/50, but subject to the following boundary adjustments, be declared the Ngong Game Reserve:—

(i) The exclusion of a triangular piece of land bounded on the north-east by the Karen border, on the south-east by the Kandis and Keserian Rivers to the former's confluence with the Mbagathi River, and on the west by the circular road round the Ngong Hills.

(*N.B.*—This area is now closely settled.)

(ii) The exclusion of an area to the west and the addition of an area to the south necessary to the security of the Nairobi Royal National Park: the boundaries to be determined by agreement between the Provincial Commissioner, Southern Province, the Chief Game Warden and the Director of the Royal National Parks.

Subsidiary Recommendations:—

(a) THAT the area between the Keserian River and the Nairobi-Magadi Road on the northern boundary of the game reserve be retained as a pastoral area, and that the present policy of the Administration that there should be no further cultivation in this area be maintained.

(b) THAT the present policy whereby the Ngong Hills above the circular road are completely preserved from cultivation be maintained.

The present Ngong National Reserve, which lies within the Masai Land Unit, carries a large population of plains game and also lion, rhinoceros and buffalo: it also contains the Ngong Hills which rise to just over 8,000 feet. But its main value lies in the fact that it is the very necessary reservoir area for the diminutive Nairobi Royal National Park. It is therefore of great importance that the migratory corridors to the south be kept free for unimpeded movement of game in and out of the Park. To determine the extent of such corridors an ecological survey of the Park and the Ngong District Reserve is urgently required. It will be necessary for the Government to watch closely and to guide pastoral development in the area immediately south of the Park. The full co-operation of the Masai must be sought through the Game Reserve Committee, but it must be recognized that if the retention of the necessary migratory corridors is detrimental to Masai grazing control schemes in this region the question of compensation will arise.

(*N.B.*—The boundaries of the proposed Ngong Game Reserve shown on the map attached to this Report are, with the exception of adjustment (i) above, the same as those of the present Ngong National Reserve. The boundaries of the proposed exchange, (ii) above, have yet to be determined.)

(4) MARA GAME RESERVE (250 square miles).

THAT the present Mara National Reserve gazetted as such by Gazette Notice No. 170/50 be declared the Mara Game Reserve.

Although this area lies within the Masai Land Unit, the Masai at present make little use of it, except for smaller stock, due to the presence of tsetse fly. This is a region of very great faunal interest with a high density of game, including such rarer species as the roan antelope. This was appreciated by the 1939 Game Policy Committee and it was accordingly declared a national reserve in 1950. Owing to its remoteness and to the onset of the Emergency no development has taken place and the game interest has been managed by the Game Department on behalf of the Trustees.

In regard to the remainder of the fly area to the east of the Mara River, we recommend that it should for the time being continue as a Controlled Area, but with the complete prohibition of shooting on licence. We make this recommendation not because it is the ideal solution, but because in present circumstances we see no alternative. We wish, however, very strongly to recommend that the Government recognize that this is by far the most important faunal area in Kenya, and probably in the world. Any future development in this area, other than for game preservation, must therefore be judged against its supreme importance as a natural game sanctuary, the preservation of which is as much in the eventual interests of the Masai themselves as of the country as a whole.

Some 60 miles south across the interterritorial boundary with Tanganyika lies the Serengeti National Park. The intervening region is fly bush country, rich in wild life, and has no human inhabitants. The Serengeti Committee of Enquiry (1957), recognizing the faunal importance of this link with the Mara area, has recommended that special measures of protection should be taken there and has expressed the hope that it might be added to the new proposed Serengeti National Park. We therefore recommend that the closest liaison be maintained with the Game Authorities in Tanganyika across the boundary.

(5) WESTERN CHYULU GAME RESERVE (145 square miles).

THAT the present Western Chyulu National Reserve gazetted as such by Government Notice No. 1232/1948 be declared the Western Chyulu Game Reserve.

This area lies on the eastern boundary of the Masai Land Unit and its declaration as a National Reserve in 1948 recognized the need to protect the important catchment area of the whole of the Chyulu Range (see paragraph 51 (2) above) and followed the recommendation of the 1939 Game Policy Committee. This is in effect only a change in status for the same area.

(6) MARSABIT GAME RESERVE (827 square miles).

THAT an area of about 827 square miles surrounding the proposed Marsabit Royal National Park (paragraph 51 (5) above) be declared the Marsabit Game Reserve.

This area forms the north-eastern corner of the present Marsabit National Reserve. but it will be noted from Recommendation (7) below that it is proposed to declare a substantial portion of what is now a national reserve to be a controlled area. As there is, however, a considerable seasonal migration of game to and from the Marsabit Mountain, it is necessary to maintain the preservation of game in this reservoir area in order to safeguard the proposed Marsabit Royal National Park.

(7) THE MATTHEWS AND NDOTO MOUNTAINS GAME RESERVE (732 square miles).

THAT the present Marsabit National Reserve be abolished and that the forest areas on the Matthews and Ndotto Mountains, gazetted as such by Government Notice No. 464 dated 29th September, 1956, be declared the Matthews and Ndotto Mountains Game Reserve.

The Committee believe that the proper status of the forested catchment areas of these ranges is that of a national park, but this cannot be achieved until the encroachment of the Samburu and other stock has controlled.

THE COMMITTEE THEREFORE RECOMMEND THAT—

- (i) early steps be taken to ascertain the boundaries and extent of the forested catchment areas;
- (ii) the present programme for the piping of water from these areas be accelerated;
- (iii) stock be progressively denied access to these areas;
- (iv) when the above recommendations have been achieved, these forested catchment areas be declared a national park.

The faunal importance of the area of the Northern Frontier District west of the road to Marsabit and lying between the Uaso Nyiro River and the south-eastern shores of Lake Rudolf was recognized early by its declaration as the Northern Game Reserve. Within it lie the mountain masses of the Matthews and Ndoto range, Mount Nyiru over 9,000 feet, Mount Kulal which rises in impressive isolation to 7,500 feet from the south-eastern shores of Lake Rudolph, and the better-known Marsabit Mountain. The area is essentially the habitat of the bigger game, but it also contains several of the rarer species including the reticulated giraffe and Grevy's zebra. We have mentioned briefly in paragraph 51 (5) above the great scenic attraction of these isolated mountain masses. The contrast between the parched low country and the fertile forested mountains is most impressive. This was recognized by the 1939 Game Policy Committee and in 1950, with some small boundary adjustments, the Northern Game Reserve was declared the Marsabit National Reserve (10,280 square miles). There is little doubt that as other game areas of Kenya become more popular this area will hold a fascination for those who are prepared to go further afield.

In the Note on Proper Land Usage (Appendix IV, Part 1) we have drawn attention to the vital importance attaching to the complete protection of the forested catchment areas of such isolated mountains and to the danger of human encroachment and of over-grazing in the lower country.

From our own experience and from the general evidence submitted to use, particularly that of Dr. H. C. Pereira, Deputy Director of the East African Agriculture and Forestry Research Organization (*see* Appendix IV, Part 4), we note with the greatest concern the rapid deterioration in the position in the Matthews and Ndoto Mountains due to forest grazing and in much of the Samburu low country due to over-stocking. The Forestry Department and the Administration are fully alive to the gravity of the situation, and some progress has been made in stock control in controlled grazing schemes in the high plains west of the mountain, but owing to the inherent difficulties resulting from the lack of finance and the innate conservatism of the Samburu very little progress has so far been achieved.

We are of the opinion that unless urgent steps are taken now it will not be long before most of the permanent mountain streams will dry up and much of this country will be unable to carry either stock or game. The first and paramount requirement is that stock should be excluded absolutely from the forested catchment areas of these mountains in order to safeguard the vital water supplies. Before this can be achieved, water must be piped from the mountain to the lower country. A limited start has been made at Wamba on the west, but the cost will be high and the immediate economic return meagre. When this has been done these important catchment areas should be declared a national park. In the meantime we recommend that the whole of the gazetted forest areas on the Matthews and Ndoto Mountains should be declared a game reserve.

As stated in paragraph 20 of the main report, we believe that the game interest in this somewhat remote area will be better served if it becomes a controlled area. We therefore recommend that the remaining area of the present Marsabit National Reserve, with the exception of the Marsabit Royal National Park (paragraph 51 (5)), the Marsabit Game Reserve (paragraph 52 (6)), and the Uaso Nyiro Royal National Park (paragraph 51 (6)), be declared a controlled area. But we consider that special attention should be paid to the conservation of game in the region north of the Uaso Nyiro River and lying between the eastern foothills of the Matthews and Ndoto Mountains and the main Marsabit Road.

(8) SHIMBA HILLS GAME RESERVE (74 square miles).

THAT the gazetted Crown Forest areas on the Shimba Hills be declared the Shimba Hills Game Reserve.

This area on the Shimba Hills is some 20 miles from Mombasa. It possesses outstanding scenic and climatic advantages; it is also the habitat of the sable antelope and elephant and carries an exceptionally fine stand of mvuli. We recommend that this area should be declared a game reserve and be developed for public recreation. The Mombasa Municipal Board should be represented on the game reserve committee.

(9) BONI AREA.

THAT the hinterland north of Lamu, lying between the Somalia frontier and the track from Lamu through Ijara, known generally as the Boni country, be investigated with a view to a suitable area being declared the Boni Game Reserve.

This region lies south of the track running from Hara on the Tana River through Ijara to the Somalia frontier some 100 miles away: including the coastal belt it is about 3,000 square miles in area. It carries a very considerable game population including elephant, lion, Hunter's antelope, topi, zebra, Haggard's oribi, buffalo and waterbuck. It is also

of floral interest and is very lightly populated. In our opinion the proper land usage for much of this region is to protect the flora and fauna, and the aim should be to declare a suitable portion of this country a game reserve with the possibility of establishing, at some future date, a national park in part of such reserve. We understand that it would be of advantage to the very scattered local inhabitants if they were brought together in settlement areas and that there would be little administrative difficulty in doing so. The possibility of including part of the coastal strip and some coastal islands which are of considerable archaeological, cultural and scientific interest in the area of preservation should also be borne in mind. A general survey of this area should therefore be undertaken to enable a decision to be taken on this proposal.

(10) TSAVO ROAD AND RAILWAY GAME RESERVE.

THAT the Tsavo Road and Railway National Reserve (Gazette Notice No. 830/49) be declared the Tsavo Road and Railway Game Reserve.

As neither the road nor the railway running through the Tsavo Royal National Park could be included in the boundaries of the park, and as it was desirable that the Trustees should control the game interest in these strips, 100 feet on either side of the road and railway were declared a national reserve. All that is involved is a change in status, but we recommend that the Trustees be enabled to retain control of the game interest.

CHAPTER V—ACKNOWLEDGMENTS

53. We acknowledge gratefully the co-operation of all those who have assisted us by submitting memoranda or giving verbal evidence. But it is with regret that we record that circumstances prevented Captain A. T. A. Ritchie from giving verbal evidence. His knowledge of and interest in, wild life in Kenya is probably unsurpassed. It was fortunate, however, that his views on many of the problems confronting us were known to some members of our Committee.

We also wish to record our thanks to Mr. R. L. E. Dreschfield, Q.C., Chairman of the Board of Trustees of the Uganda National Parks, and Mr. R. M. Bere, the Director, for the assistance given to our Secretary when he visited Uganda, and to Lt.-Col. P. G. Malloy, Director of the Tanganyika National Parks, for the facilities given to our Secretary when he visited Arusha.

Finally, we wish to express our thanks to Mr. F. D. Corfield who, in addition to the arduous duties of Secretary, also conducted much research on our behalf into many reports and memoranda in other territories, which were of great value to us.

We have the honour to be Your Excellency's most obedient servants,

L. R. MACONCHIE WELWOOD (*Chairman*).

MERVYN COWIE,

W. H. HALE,

S. H. POWLES,

J. C. LIKIMANI,

A. P. HUME,

K. M. COWLEY,

J. W. HOWARD,

Members.

F. D. Corfield, *Secretary*.

The Cabinet Office,

Government House,

Nairobi.

16th March, 1958.

CHAPTER VI—1956 GAME POLICY COMMITTEE

Minority Report

Having been a member of the 1939 Game Policy Committee, and Director of the Royal National Parks of Kenya for twelve years, I am very aware of the difficulties of achieving a successful game preservation plan for Kenya. A solution of these difficulties was the main task confronting the 1956 Game Policy Committee.

Considerable progress has been made since 1939 and the recommendations contained in the main report, if accepted, will go a long way towards establishing a game policy for Kenya.

The Royal National Parks as they exist today, however, and even with the boundary alterations now recommended, will not be ecologically adequate by themselves to ensure the survival of a reasonable quantity and variety of game in Kenya. The future status of the National Reserves, and of any other areas of high faunal value, is therefore a question of fundamental policy, since no preservation plan can be complete without including such areas.

I cannot subscribe to the recommendation in the main report, and its implications, that the Trustees should be divested of any game preservation duties outside of the fully constituted National Parks, even if judged only in the light of the Trustees' past record of achievement. Nor can I support abolishing the National Reserves, when the only alternative recommended is a reversion to a system of Game Reserves, although in a modified form. This was a method tried for over 40 years in Kenya, prior to the establishment of National Parks and Reserves, but which failed to withstand the pressure of changing, expanding, and often unjustified requirements for other purposes.

The National Reserve system is by no means ideal, and in any event was designed as an experiment, but the Trustees' control of such Reserves has in the past only been exercised after the closest consultation with, and in fact subject to the wishes of the Administration and other Government Departments concerned.

Neither system, whether National Reserves or Game Reserves, can really be successful unless the preservation of game in such areas is the specific objective.

I therefore view with great concern, the removal of the National Reserves from the control of the Trustees; a statutory body, with perpetual succession, having only a single objective and continuity of purpose.

It is for these and associated reasons that I feel compelled to submit this Minority Report. Since, however, it has not been possible for the Trustees to be consulted on all the various questions contained in the main report, it must remain clear that my contributions to it represent my personal opinions and not necessarily the views of the Trustees.

Nairobi,

22nd April, 1958.

MERVYN COWIE, (*Director*),

Royal National Parks of Kenya.

Comments of the Chairman on Mr. Cowie's Minority Report

1. Mr. Cowie's Minority Report refers only to those areas of high faunal value which, by reason of the recognized human rights therein, cannot in the present circumstances be declared national parks. Most of such areas are at present national reserves or parts thereof, and they have been designated game reserves. [1] With the exception of the Mathews and Ndoto Mountains, the more important of these areas are all in the Masai Land Unit. They are Amboseli, Ngong and Mara Game Reserves and the area east of the Mara River.

2. Although the main Report has used the term "game reserve" to cover these areas, the implication in the latter part of paragraph 4 of Mr. Cowie's Report, that it has thereby recommended a reversion to a system similar to that of the old game reserves, cannot be accepted. The full Committee, realizing that some such misunderstanding might arise, spent much time in attempting to find a more suitable title; [2] and I can only assume that Mr. Cowie has expressed this opinion in the belief that, whatever the policy, the Game Department would not be able to withstand pressures detrimental to the game interest.

3. The 1939 Committee recognized the great importance of these areas to the preservation of game in Kenya and recommended that the game interest should become the responsibility of the Trustees, with a somewhat vague direction that they should preserve the game so long as it did not conflict with other human interests. [3] This was, of course, the generally accepted attitude to game preservation at that time, but no clear thought had been given to the position which would arise when expanding human development in these areas became detrimental to the game interest which it was the responsibility of the Trustees to preserve. As Mr. Cowie points out in his Report, no system can be really successful unless the preservation of game in such areas is a specific objective. It was the failure on the part of both the 1939 Committee and the Government to appreciate this essential requirement which was, and would in the opinion of the rest of the Committee continue to be, a basic cause of the failure of the machinery set up to administer the national reserves.

4. One of the primary objectives of the 1956 Game Policy Committee was to rectify this failure and to seek to recommend a policy which would ensure, as far as was humanly possible, that wild life could continue to exist in the areas of high faunal value which it has to share with stock. The Committee's fundamental recommendation is that the future use of any area of high faunal importance shall be determined by

Note [1].—Main Report, paragraphs 14-19.

Note [2].—Main Report, paragraph 17.

Note [3].—Main Report, paragraph 14.

the impartial assessment of the proper land usage of the area in the wider interests of the Colony as a whole, which is inevitably the duty of any Government. [4] Where the resulting objective of game preservation conflicts with a legitimate human interest, the full co-operation of the local inhabitants must be sought and there must be adequate compensation. [5] It is clear, therefore, that the new game reserves bear little or no resemblance to the old game reserves and that the policy recommended for their administration removes the very real weakness of the national reserves which they are to replace. I have commented on this at some length as it is important that Mr. Cowie's remarks should not give rise to any misunderstanding of this vital recommendation.

5. The main issue is clear and it will be for the Government to make the decision. The main reasons which led the rest of the Committee to recommend as it has are set out in paragraphs 14-19 of the main Report. It must be realized that the pastoralists know full well that the primary function of the Trustees is to assume absolute and complete control of national parks where there are no human interests. It is therefore understandable that they should view with some concern the fact that a public body not under the control of Government has been charged with responsibilities for game preservation in the areas they occupy. The rest of the Committee was therefore convinced, on the facts as they are today, that the chances of achieving the aims of preservation in these new game reserves would seriously be jeopardised if the main duties of preservation did not remain firmly in the hands of the Government.

L. R. MACONOCHE WELWOOD (*Chairman*),
1956 Game Policy Committee.

Cabinet Office,
Nairobi.
30th April, 1958.

CHAPTER VII—1956 GAME POLICY COMMITTEE

First Interim Report

YOUR EXCELLENCY,

The Council of Ministers, at its eighty-fourth meeting, recognizing that the policy of the Government should be to preserve Kenya's wild life as an asset of economic, scientific and recreational importance, advised the appointment of the following Committee to be known as the 1956 Game Policy Committee:—

The Hon. L. R. Maconochie Welwood (*Chairman*);

The Director of the Royal National Parks of Kenya, Mervyn Cowie, Esq.;

The Game Warden, W. H. Hale, Esq.;

S. H. Powles, Esq.;

Dr. J. C. Likimani;

Representative of the Ministry of Forest Development, Game and Fisheries, the Secretary to the Ministry;

Representative of the Ministry of African Affairs, K. M. Cowley, Esq., O.B.E., Acting Provincial Commissioner, Southern Province;

Representative of the Ministry of Agriculture, W. F. P. Kelly, Esq., Executive Officer of the African Land Development Board;

F. D. Corfield, Esq., M.B.E. (*Secretary*);

with the following terms of reference—

- (1) to consider and make recommendations as to a policy to be adopted for the long-term preservation of game, having regard to the interests of human population in game areas and to the economic development of the country.
- (2) in view of the urgency of a solution of the conflict in the Amboseli National Reserve between human and game interests which is rapidly reducing the value of this area as a game reserve, to make interim recommendations for the preservation of the game interest, having due regard to the considerations in (1) above;
- (3) to consider the liaison between Parks and the Game Department and to make recommendations for the strengthening of the Game Department and its preservational duties if this proves necessary;
- (4) to consider existing Game Legislation and to recommend, if deemed necessary, a strengthening of the Game Laws.

2. The setting up of the above Committee together with its terms of reference was notified to the public through the Press by

Press Office Handout No. 190 of 23rd February, 1956, which invited public bodies and individuals to submit representations.

3. We have held a series of meetings, and have visited the Ol Tukai area in the Amboseli National Reserve, the Tsavo Royal National Parks (East and West), the Chyulu Hills and the eastern slopes of the Chyulu Hills including the Kiboko-Makindu area west of the Mombasa railway line. We have so far received 14 memoranda or representations from public bodies and individuals. Some cover proposals which are dealt with in this Interim Report: others will have to be considered at a later date.

4. In reviewing our terms of reference by comparison with those of the Game Policy Committee appointed in 1939, we noted that whereas the 1939 Committee was enjoined to recommend a policy for the preservation and control of game with special regard to the necessity of preventing game coming into serious conflict with the economic development of the country we are now asked to make similar recommendations having regard to the interest of human populations in game areas and to the economic development of the country. It was therefore clear to us that where there was a conflict we would have to assess and balance the respective economic claims of game preservation and human interests and that in some areas we could base our recommendations on the grounds that the preservation of game would be of the greater economic benefit to the country as a whole, although such preservation might conflict with an established or potential human interest. We, however, appreciated that where our recommendations interfere with the apparent immediate interest of a particular human group the latter would have to be adequately compensated.

5. By our second term of reference we were charged, as a matter of urgency, to submit interim recommendations for the preservation of the game interests at Ol Tukai in the Amboseli National Reserve; we accordingly held our first meeting on the spot. It then became apparent to us that three other matters required urgent consideration—

- (a) to settle proposed adjustments to the boundary between the Masai Land Unit and the Tsavo Royal National Park which have been outstanding for some time;
- (b) to examine on the ground possible changes in the status of the areas of Crown Land on the eastern slopes of the Chyulu Hills;
- (c) to make immediate recommendations for the suppression of poaching which threatens the survival of game in these and other areas.

We have therefore included certain recommendations on these matters also in this interim report. In particular we consider that the urgency of more effective measures to combat poaching calls for very early action.

Amboseli National Reserve

6. Where a National Reserve, such as Amboseli, forms part of a Native Land Unit, the Trustees may exercise such powers, duties and functions, conferred on them by the Royal National Parks Ordinance, as may be approved by the Governor after consulting the Native Lands Trust Board. To assess the chances of the long-term preservation of game in a National Reserve which is shared with a pastoral tribe, and where the normal and customary rights of the indigenous inhabitants are safeguarded, it is essential to be guided by conditions when they are at their worst. In times of drought there is fierce competition for the sparse grazing and for the few permanent watering places. This position occurred at Amboseli in 1955 when increasingly large herds concentrated there, and public opinion both in Kenya and abroad was widely and justifiably concerned with the rapidly decreasing value of the area as a game reserve. This does not in our opinion justify many of the strictures passed on the Masai in the recent Press campaign. We wish therefore to record some basic factors on which public opinion would appear to be misinformed.

7. In the early years of this century the Masai grazed their cattle and sheep at will over large areas of Kenya and in the interests of proper land development an Agreement was reached with the Masai in 1904 whereby they gave up this ill-defined but customary grazing and removed themselves and their stock into two definite reservations, a Northern Reserve in the Laikipia Area and a Southern Reserve of some 4,350 square miles south of Nairobi on the Tanganyika boundary. The Government undertook on behalf of His Majesty's Government not to lease or grant any land within the area so allotted without the sanction of the Paramount Chief and the representatives of the Masai, except such land as might be required for mining or for any public purpose.

8. When it became clear to the Government that the Masai were not respecting their boundaries and to the Masai that the separation of the tribe caused great disunity, a further agreement with the Masai was reached in 1911, whereby they gave up the Northern (Laikipia) Reserve in exchange for some 5,850 square miles to the west of their Southern Reserve. In 1912 some 920 square miles were added to the west of this Reserve in the Trans Mara Area and some 3,730 square miles to the east, north of Mount Kilimanjaro. With other small additions the total area of the Masai Reserve then amounted to about 14,800 square miles.[1]

Note [1].—It should be noted that in 1912 as a result of agitation by the Masai legal proceedings were taken against the Government which sought to invalidate the 1911 agreement and thus allow for a return of the Masai to the Laikipia Reserve. This was dismissed by the Court of Appeal for East Africa on the grounds that the Agreements were in fact Treaties and, as such, claims thereunder were not cognizable in the Protectorate Courts.

9. When the Native Lands Trust Ordinance was enacted in 1938 the lands reserved to the Masai were designated a Native Land Unit and their status cannot be altered except under the provisions of that Ordinance. Moreover, unless the Treaties are to be deliberately broken, any alteration in status must be with the agreement of the Masai themselves.

10. The criticisms in the Press, to which we have already referred, commonly disregarded, or must have been made in ignorance of, the fact that Amboseli is in the Masai Land Unit, and in so far as they appear to suggest the arbitrary disposal of their rights have been resented by the Masai: all the more so as, by custom, the Masai do not molest game except in the protection of their stock against marauders. Until recently there has been a happy balance between their herds of stock and the game, which is one of the reasons why the greatest concentrations of game survive in the Masai Land Unit. The Press campaign has tended to harden the attitude of the Masai towards game preservation and to make less easy an amicable solution of the problem at Amboseli. Owing to the prolonged drought accentuated in 1955 there came about a much heavier concentration of stock in the Ol Tukai area, to the point where the proposed management of grazing contained in the recently instituted Ilkisongo Grazing Scheme, referred to in paragraph 17 below, could not be carried out.

11. Viewing the Amboseli problem in the light of the first of our terms of reference, we have no hesitation in saying that the preservation of game in this area, is very much in the interests of the economic and, we might add, of the cultural, development of the country. In support of this opinion we think it is sufficient to quote from the report by Dr. George A. Petrides, Ph.D., Associate Professor of Wildlife management and Zoology, Michigan State College, who said this in 1954:—

“Amboseli National Reserve is a most spectacular area. With its wonderful location at the foot of snowcapped Kilimanjaro and its remarkable display of rhinos, elephants and lions as well as of smaller game of both thornbush and to a much lesser extent, plains game, Amboseli is now and should be even more so in the future, one of Kenya's outstanding tourist attractions.”

We agree with every word of this [2].

12. If there is no doubt that it is to the advantage of Kenya's economic development to preserve this unique locality for game, and we submit there is none, it is equally clear that no solution can be acceptable which does not fully safeguard the legitimate and reasonable interests of

Note [2].—Over 6,000 people visited the Ol Tukai Lodge in the National Reserve in 1955. The greater number of these were visitors from overseas, and the proportion of overseas visitors to Amboseli is higher than in any other Kenya National Park Lodge.

the Masai, having regard to their treaty rights in this area. Only two alternative proposals for dealing with the problem have appeared to us worthy of serious consideration.

- (a) One is to create a Royal National Park within the Amboseli National Reserve of at least 200 square miles by direct exchange with an area acceptable to the Masai on the borders of their present Land Unit. This area to include the swamps and the tree belt at Ol Tukai. An adequate area outside this Royal National Park to remain a National Reserve.

A variant of this proposal is to negotiate an agreement with the Masai whereby they lease, under the terms of the Native Lands Trust Ordinance to the Trustees of the Royal National Parks, an area of at least 200 square miles for a period of 30 years.

- (b) The other proposal is for the Government to provide an adequate alternative water supply to the swamps at Ol Tukai which the Masai traditionally use, and then to enforce the use by Masai cattle of this alternative water supply and to limit strictly the number of cattle allowed to graze in the Ol Tukai area.

13. The first of these alternatives, viz., the acre-for-acre exchange idea, though apparently presenting the ideal solution, we found beset with grave objections. In the first place the choice of areas likely to be of any use to the Masai in an exchange, is limited to two, since any land offered would have to be contiguous (or at least accessible) to the Ilkisingo section. Of these two, the area on the western boundary of the Tsavo Royal National Park (West), east of Chamwe Hill, in the neighbourhood of the Iltal Springs and south of the Chyulu Hills, is too small an area of grazing to offer to the Masai in exchange for 200 square miles of the Native Land Unit in the Amboseli National Reserve. The only other possible area which we considered is a block of land also on the western boundary of the Tsavo Royal National Park (West) south of the Tsavo River and in the Coast Province. This land is covered with bush and infested with tsetse fly and the cost of clearing would be between £60,000 and £100,000; apart from this the Masai have never been particularly interested in this area. It is in any case a vital portion of the Tsavo National Park.

14. A further grave objection to the exchange idea lies in the fact that even if an area of land acceptable to the Masai could be found, in addition to any expenditure which might have to be incurred in anti-tsetse fly measures, it would still be necessary to provide an alternative water supply on the boundary of the leased or exchanged area in the Amboseli National Reserve to water the stock of the Ilaitaiyok Clan of

the Ilkisongo section of the Masai alone. On grounds of expense also we found ourselves, therefore, forced to abandon the exchange proposals.

15. We have, therefore, come to the conclusion that there is no other way of preserving as a game area this invaluable asset which Kenya possesses than by adopting our second alternative proposal. All the evidence which we have heard and seen showed that the primary need of the Masai in the Amboseli area is water for their cattle. The grazing is of poor quality, being saline, although some use is made of it; salt deposits are also used. The rapidly increasing devastation caused to all vegetation in a succession of dry seasons, which is fast driving out the wild animals, and which must be remedied if Amboseli is to be preserved as one of Kenya's main show windows for game, results from the concentration of some 70,000 head of cattle and possibly as large a number again of small stock in search of the water provided by the Ol Tukai swamps. It is true that the heavy and quite exceptional rainfall in this area early in 1956 brought about a temporary improvement in the situation, but the failure of the April rains has very soon reversed this temporary improvement, and if the same vast and uncontrolled number of cattle and small stock water at the Ol Tukai swamps again next dry season, the fate of this area as a game reserve may well be finally and irrevocably sealed.

16. Impressed with the great urgency of some remedial action, we arranged for an Engineer Geologist to visit the area and report on the possibility and cost of providing permanent water for the Masai cattle and stock outside the forest belt surrounding the Ol Tukai swamps as an alternative to the use of the swamps themselves. Mr. N. P. E. Lehner has presented us with several alternative proposals for such a water supply scheme, the estimated cost of the cheapest of which amounts to £77,500. This scheme provides for the installation of a pipe water supply from the swamps and other sources along the southern boundary of the Ol Tukai area. Water from the swamps would be pumped to an elevated tank situated on the top of a suitable natural feature, and from there reticulated by gravity to seven watering points. We are satisfied that this scheme, in combination with a vigorously enforced policy of restricting the number of cattle allowed to graze in the area at any time, offers the only hope of a practicable solution to the problem before us.

17. In this connexion we must note that the Ilkisongo section have accepted a controlled grazing scheme and the Ol Tukai swamps and springs fall within the dry weather grazing area of the Ilaitaiyok Clan. The Administration have agreed that under this scheme and in the interests of proper land usage, access to the swamp area should be controlled and should be limited to the Ilaitaiyok Clan having about 30,000 head of cattle. At one stage of our deliberations we had indeed hoped that some temporary alleviation of the situation might have been possible

by controlling the access of cattle to the swamp area at Ol Tukai by means of stock routes, and that the cattle watering there might be confined to those of the Ilaitaiyok Clan in accordance with the Controlled Grazing Scheme. We thought that if this were combined with reduction to the minimum of grazing in the forest belt around the swamps, and reduction in the number of *manyattas* in the forest belt with limitation of the number of stock attached to each, some respite would have been gained, while steps were being taken to provide a permanent alternative water supply. In the event, and mainly due to the failure of the April rains and consequent overwhelming pressure of stock in search of water, these hopes came to nought. Their fulfilment depended in any case upon the agreement and willing co-operation of the Masai, and this, in the face of drought conditions with no alternative arrangements for watering, was neither forthcoming nor to be expected.

18. The frustration of these hopes underlines more heavily still the fact that the essential prerequisite of any long-term remedy is the installation of an alternative piped water supply for the stock such as the engineer geologist has proposed. We must now make it perfectly clear that the provision of such a water supply and expenditure of some £78,000 thereon, can only be justified if the Government is ready to enforce the proper use of the water so provided. In other words it would be no use providing the water and then leaving it to the Masai to make use of it for their cattle or not as they pleased, in substitution for, or in addition to, the water in the Ol Tukai swamps. If the Government accepts our recommendation in this respect, we envisage that the Masai would be told of the intention to provide an alternative piped water supply; that, once it has been provided, they would be allowed and required to water a specific number of cattle and stock at each of the watering points and nowhere else, and that the number of cattle permitted to enter the Ol Tukai grazing area at all would be strictly limited and such cattle would have to be branded. We consider that the number of cattle which would be allowed to graze in the swamp area should be decided by the experts; that in calculating the carrying capacity of the land, only the usable area of 200 square miles should be taken into consideration; and that the number of stock permitted to use the grazing should be half the carrying capacity so as to allow for game grazing. We believe that a solution on these lines would prove of lasting benefit to the Colony as a whole and to the Masai themselves, and that in the interests of the common weal the Government would be fully justified in imposing such an arrangement upon the Masai and enforcing it.

We feel it necessary to reiterate that if the game is to be preserved in Amboseli, urgent action must be taken.

Tsavo Royal National Park (West)**ILTILAL/NJUGINI EXCHANGE**

19. There have been discussions over a number of years on possible readjustments to the eastern boundary of the Masai Land Unit which runs with the western boundary of the Tsavo Royal National Park. The Masai have always contended that the present boundary which runs about one mile east of the Iltlal Spring was not the boundary originally pointed out to and accepted by them, and that it should have run further east through Chamwe Hill. The Trustees of the Royal National Parks agreed in principle to an adjustment of the boundary in favour of the Masai, but suggested that in exchange the Masai should be asked to give up a small triangular area in the south-eastern corner of their Land Unit lying between the Njugini and Tsavo Rivers, of which they made little use. The Masai accepted these proposals.

In addition, and in order to safeguard one of the main Sainte Springs, it was suggested that the Government should make over to the Royal National Parks a salient of Crown Land to the west of the latter area. But these proposals never reached finality due mainly to survey difficulties in determining the correct position of the Sainte Springs. These difficulties have now been resolved. On 9th May, 1956, we visited the Iltlal area and in the interests of an amicable settlement in the Amboseli area we agreed that the implied undertaking given to the Masai in regard to this area should be honoured and that in exchange they would give up the small triangle between the Njugini and the Tsavo Rivers.

We therefore recommend—

- (1) that the eastern boundary of the Masai Land Unit be adjusted to run through the crest of Chamwe Hill and that an area of approximately 3,630 acres be excised from the Tsavo Royal National Park (West) and be added to the Masai Land Unit;
- (2) that a triangular area of approximately 3,630 acres bounded on the north by the Njugini River, on the south by the Tsavo River, and on the west by a line running approximately south-south-east from Njugini beacon be excised from the Masai Land Unit and be added to the Tsavo Royal National Park (West);
- (3) that an area of Crown Land of approximately 5,800 acres to the west of (2) above be added to the Tsavo Royal National Park (West).

Chyulu Hills

GENERAL DESCRIPTION

20. These hills which are of comparatively recent volcanic origin stretch for some 30 miles north-west and south-east on the eastern boundary of the Masai Land Unit and rise to above 8,000 feet. As they are composed of volcanic ash, the rainfall of about 45 inches a year soaks straight in and there is no surface water, but one of the main out-flows for this water is thought by geologists to be the Mzima Springs. Many of the higher sections are covered in dense forest which appears to be extending. The upper slopes are grass-covered, but owing to the lack of surface water or springs they do not carry a large game population, but they are of unusual beauty and of considerable floral and geological interest. As the surface soil is friable there would be a rapid deterioration and devastation of the natural cover were agricultural or pastoral development made possible by artificial catchment areas, and the upper slopes of these hills have therefore been scheduled to safeguard this most valuable catchment area. The foothills consist of vast lava flows covered with dense tsetse fly-infested bush and with the exception of narrow glades running up between the lava flows there is little suitable grazing. Here again the concentration of game is not heavy although it is a valuable migratory area.

Western Chyulu National Reserve

21. The eastern boundary of the Masai Land Unit follows the line of the major peaks, and the western slopes down to the approximate line of the plains, which are within the Masai Land Unit, have been gazetted a National Reserve. The Administration have agreed that the grass slopes must be protected and it is not intended to extend the Controlled Grazing Scheme into this area in the foreseeable future. We considered that the latter, together with the natural protection afforded by the tsetse fly was a sufficient safeguard and we have therefore decided to make no recommendation at present for any alteration in the present boundaries of this area.

Eastern Slopes of the Chyulu Hills

22. We have given detailed and careful consideration to the problem of game preservation in the areas of Crown Land which are situated on the eastern side of the Chyulu Range of Hills and lie between the East African Railways main line and the Masai Land Unit boundary. In 1950 the utilization of this area as part of a wider land problem was considered by the Machakos Reconditioning Committee. The Committee recommended that in view of the critical nature of the agrarian problem in the Kamba Land Unit, all unalienated Crown Land in the Machakos District outside the White Highlands should be exclusively reserved for

the Akamba, subject to certain conditions of which one was, that if it should be decided that development of a given area by non-Kamba is of benefit to the community in general and does not prejudice Kamba interests, then land should be alienated for the purpose. This recommendation was referred to the Land Board who advised that all the unalienated Crown Land of the Machakos District as described, except for the upper Chyulu Range above the 4,000 feet contour, should become a Native Settlement Area by addition to the Ninth Schedule of the Crown Lands Ordinance, and they further advised that if at some future date it is decided that any part of this land can be better developed by persons other than Akamba for the benefit of the community in general and without prejudice to Kamba interests, then the land in question could be alienated for the purpose by proclamation of the Governor under section 60 and 54 of the Crown Lands Ordinance. This recommendation was referred to Executive Council by Memorandum P&S.3/3/19/88, dated 14th August, 1952, who advised by Minute No. 340 dated 28th August, 1952, that the proposals set out in the memorandum should be adopted, and that an amendment of the Crown Lands Ordinance to effect the necessary addition to the Ninth Schedule of that Ordinance should be introduced into Legislative Council.

As an interim measure we recommend:—

That in order that there shall be no change of status of the areas of unalienated Crown Land which are situated on the eastern slopes of the Chyulu Hills and which lie between the East African Railways main line and the Masai Land Unit boundary until we have submitted our final recommendations; the amendment to the Crown Lands Ordinance to effect the addition to the Ninth Schedule of that Ordinance, should not at present be implemented.

Poaching

23. With the inevitable and increasing pressure on land for agriculture and pastoral development, our task of recommending a policy which will safeguard with some certainty the preservation of wild life in selected areas is unlikely to be easy. But we can say with assurance that such a policy will not achieve its object if poaching continues on an appreciable scale. There is no direct statistical evidence available to show that poaching has increased in the last half century, but it is clear that with the opening up of communications and the decrease in tribal enmity, the facilities for poaching and for the disposal of the proceeds of poaching have increased immeasurably and even if there are fewer poachers, as the number of game decreases so the impact of poaching becomes more serious. From the memoranda we have received, and from the evidence we have heard and from our own experience it is quite obvious that the impact of poaching has become so heavy in the areas where game remains that it is now a major danger to the long-term

preservation of game both in the Royal National Parks and in the National Reserves and other areas which come under the jurisdiction of the Game and Forest Departments.

24. On Thursday, 10th May, 1956, we visited the Tsavo Royal National Park (West), near Voi, and had a long discussion with the Warden, Mr. D. W. L. Sheldrick. We took note of the sawn-off hollows of 140 elephant tusks, 100 of which were new, and which had been collected over the past year. We accepted this as clear evidence that poaching in and around this park was taking place on a very large scale. We also noted the large number of rhinoceros horns confiscated by the Rangers and we heard evidence which showed that there was an extensive trade in game meat across the border.

25. Poaching takes two forms: destruction for the personal use of the poacher, and destruction for profit. It is the latter which constitutes the greatest menace to the long-term preservation of game. Much evidence has been collected both by the Game Department and by the Royal National Parks and it shows that this nefarious trade is highly organized; regular bands of poachers dispose of their trophies, mainly to African middlemen who are the agents for the exporters on the Coast, mostly in Mombasa. These Agents operate mainly from the small trading stations on the railway line between Voi and Mombasa. The arrest and conviction of the poachers, many of whom are known, will tend to disorganize this trade, but we are firmly of the opinion that the only effective way of disrupting it and bringing it to an end will be to bring the dealers and middlemen to justice. As the ramifications of this trade are widespread this will not be easy, and special measures will be necessary. Provision has already been made in the current year's estimates (1956/57) of the Game Department for three additional Game Rangers and ancillary staff for the purpose of stepping up the campaign against poachers and for ivory control; also a special C.I.D. officer has been seconded to work with the Game Department and with Wardens of the Tsavo National Park to investigate poaching activities. We are convinced that the defeat of the ever-growing menace of poaching is vital to the preservation of game in certain areas; success or failure depends mainly upon the amount and energy of the field staff provided to chase and harry the poachers. We have no hesitation in urging upon the Government the necessity to provide the necessary funds. We think that the additional provision in the Game Department estimates is probably sufficient to enable the Game Warden to show some substantial results in dealing with poachers. We have been impressed by the evidence tendered by Mr. Sheldrick and we have no doubt that, in view of the vast area of Tsavo National Park and extent to which poaching in it is rife, the National Parks need more staff to carry out an efficacious anti-poaching drive. We do not envisage that such additional staff need be permanent, and we would urge that the Trustees of the Royal National

Parks be provided with more money for a period of three years, starting in the present financial year, to enable them to mount a special anti-poaching campaign in close co-ordination with the efforts of the Game Department and of the police and administration.

Ivory Control, Mombasa

26. The control of movement of ivory into and out of Mombasa is at present exercised through the Customs Regulations, but it has for some time become apparent that the present administrative arrangements to control this movement are far from satisfactory. We note the Ministry of Forest Development, Game and Fisheries already has this matter in hand and that provision has been made in the current year's estimates of the Game Department to enable that department to take over and run the control of ivory at the Coast.

Enforcement of Game Laws

27. Wide powers to deal with poaching are contained in the Preservation of Wild Animals Ordinance, 1951. Proposals to strengthen the provisions of this Ordinance are given in fuller detail below. We are fully satisfied that, were the provisions of this Ordinance enforced with vigour, much of the threat to game due to poaching would disappear. The first and most important step is, therefore, that the Government should draw the attention of all officers, and in particular the Police and the Administration, to the fact that the preservation of game is of urgent importance and that the provisions of the Preservation of Wild Animals Ordinance must be firmly enforced. In particular we recommend that the attention of magistrates and of the police be drawn to the judgment of Her Majesty's Court of Appeal for East Africa in Criminal Appeal No. 931 of 1954, which we reproduce as Appendix C.

Amendments to Game Laws

PENALTIES

28. Although the penalties under the Preservation of Wild Animals Ordinance may in the past have been sufficient to deter the ordinary poacher destroying game for his own personal use, they are, in our opinion, quite inadequate to deal with the new class of professional poacher or with the middlemen and the ultimate receiver who now make substantial profits out of their illegal trade. It has also come to our notice that poachers in particular are becoming increasingly defiant. The maximum penalties must be sufficiently high to enable the Courts, either on their own volition or on representations by the Prosecution, to impose sentences which are adequately deterrent when dealing with the more serious breaches of the law.

Use of Poison

29. Although it may be true that some game is more effectively destroyed by the use of weapons which are poisoned, we cannot accept the widely held contention that the retention of the use of poisoned weapons, arrows in particular, by certain tribes is necessary for the protection of life and property from wild animals, since the great majority of tribes throughout Africa achieve such protection with weapons which are not poisoned. We are strongly of the opinion that the use of poisoned weapons should be made illegal, both on humane grounds and in order to contribute to the protection of game. Owing to the customary use made of poisoned arrows by a few tribes, we realize that if our recommendation is accepted, it may take some time before its prohibition can be generally enforced. It will, therefore, be advisable for the Government to give due notice before the law is strictly enforced in certain areas to be specified.

Our proposals for amending the game laws are detailed in the Summary of Recommendations.

Alternative Livelihood for Native Hunters

30. Among some of the smaller tribes, particularly the Waliangulu, hunting has been the customary and only occupation for generations. Imprisonment or fining is unlikely to deter such tribesmen from hunting. The only satisfactory solution both in their own interests and in the interests of game preservation is to find them, and particularly the rising generation, some alternative form of livelihood, and we recommend that the attention of the Administration be drawn to this problem and its solution.

We have the honour to be Your Excellency's most obedient servants,

L. R. MACONOCHE WELWOOD (*Chairman*).

MERVYN COWIE,

W. H. HALE,

S. H. POWLES,

J. C. LIKIMANI,

A. P. HUME,

K. M. COWLEY,

W. F. P. KELLY,

Members.

F. D. CORFIELD (*Secretary*),
The Cabinet Office,
Government House, Nairobi.

31st August, 1956.

Summary of Recommendations submitted in Interim Report and of action already taken are given in Appendix VI.

1956 GAME POLICY COMMITTEE INTERIM REPORT

JUDGMENT BY HER MAJESTY'S COURT OF APPEAL FOR EAST AFRICA IN CRIMINAL APPEAL No. 931 OF 1954

This was an appeal by a woman convicted by the Supreme Court of Kenya sitting in emergency assize of unlawful possession of ten rounds of ammunition. We dismissed the appeal, but one aspect of the case makes it desirable to comment in writing.

The appellant had on several occasions asked a woman named Wamboi whether she was a Mau Mau adherent and whether she could obtain ammunition, which, it was made clear, the appellant intended to pass on to terrorists. Wamboi was not only loyal, but was an informer employed by the District Officer, who is also head of the local screening team. Hoping to obtain information which would be of value for operational purposes she pretended to be in sympathy with the appellant's plan. At the same time she reported to the authorities and the police arranged, and instructed her to carry out a "trap". On their instructions she handed the ammunition to the appellant and almost immediately afterwards the appellant was arrested. The rounds were found on her person by means of a search which was unlawful, for it was effected by a male police officer. *See* Emergency Regulation 30. This, however, cannot affect her guilt. *Reg. V. Karuma s/o Kaniu, Cr. Appeal No. 128 of 1954, unreported.*

The learned trial Judge accepted these facts and, though he granted a certificate that the case was fit for appeal on fact, we see no reason whatever to differ from him. He then referred at length to the "trap", and stated that this appeared to be "a case of instigating crime by placing at the disposal of the accused the means of committing it." He added:—

"The clear duty of the authorities concerned was to prevent the commission of the offence.

There seems to be something repugnant to natural justice and to British ideas of how justice should be done in luring people to their doom by providing them with the means to commit a crime, while those supplying the means stand by and watch the crime committed ready to pounce upon the guilty person as soon as he or she has fallen into the trap.

No doubt there are certain types of cases in which the police do at times find themselves obliged to lay traps for criminals, such as cases of blackmail or extortion, bribery and corruption and so on. But in these cases the object of laying the trap is to secure evidence of the completed commission of the offence, and not to instigate the commission of the offence by a person who had hitherto taken no active steps to commit it, or to supply that person with the means of committing the offence.

The present case is very different. There the accused, though undoubtedly a dangerous woman, has done no more than make an enquiry of the agent Wamboi whether she could let her have the means of committing the offence.

The real offence which the accused had committed prior to being given the ammunition appears to me to be that of demanding supplies of ammunition in circumstances showing that they were intended for the use of a person who intended to act in a manner prejudicial to public safety".

We are unable to agree with some of these views. It is clear that to act as *agent provocateur* is never justifiable: but this situation arises in its true form only if the accused would never have committed, or attempted to commit, the

crime in question but for the encouragement of the *agent*. Apart from mere detection of a crime already committed, there may be two other types of case, where the police have information that a crime is likely to be committed and conceal themselves with a view to obtaining evidence of its commission, and secondly, where it appears that the offence would in any event be committed when the opportunity arose and the police provide an arranged opportunity. These are both, as it seems to us, cases in which the use of a trap may be legitimate. The test is not, we think, the provision of the means to commit the offence; otherwise it would be wrong to furnish marked notes in order to prove corruption. The real questions are first, the nature of the offence: obviously it could never be right to allow a murder to be committed and then arrest the murderer: but if an offence is of such a type that it can be repeatedly committed, is difficult to prevent or detect, and may be completed on one arranged occasion without actual harm to the community being done, a trap may be not only a legitimate, but the correct, method of preventing future offences. The seriousness of the offence does not seem to affect the matter. The next question is, we think, the frame of mind of the accused. If his presumed intention is to commit that single crime and then desist, it may be better, in most cases, merely to prevent the commission of the offence. If that is done it may or may not be possible to charge an attempt. But if it may be presumed that the intention is to commit, whenever opportunity offers, a series of offences of the same kind which it would be difficult to detect or prove, the case is especially suitable for a trap, and we see no objection to it.

We do not think that it is by any means clear that in this case the appellant had committed the offence of demanding supplies for the use of terrorists. See *Reg. V. Nguru s/o Murogu*, Cr. Appeal No. 561 of 1954, unreported. She had, however, by asking repeatedly for ammunition, taken active steps to commit the crime with which she was later charged. The learned trial Judge later in his judgment stresses the danger that, if ammunition is handed to a terrorist sympathizer in this way, the trap may fail to be effective and the ammunition may later be used by terrorists. The extent of this danger will depend on the efficiency with which the trap is laid. It is a factor which the police must, and, we feel confident, do, bear in mind; but it is a matter within their discretion, and we should not wish in any way to interfere with the exercise of that discretion, or to lay down principles which might seem to do so. In view of the terms of Regulation 8AA, (1) the police would clearly not be willing to take the risk if they thought it at all probable that the plan would miscarry.

CHAPTER VII—APPENDICES

APPENDIX I

Part I.—Summary of Main Events

As we were enjoined to submit interim recommendations for the preservation of the game interest in the Amboseli National Reserve at an early date, our first meeting was held at the Ol Tukai Lodge on April 4th, 5th and 6th, 1956. We next visited Makindu to study the problems of the Eastern Chyulu Mountains on May 7th, and spent the nights of May 8th-10th at the Kitani Lodge in the Tsavo Royal National Park (West); from there we visited the Iltlal Grazing Area, the summits of the Chyulu Mountains, and we discussed the problems of poaching with Mr. Sheldrick, Warden of the Royal National Park at Voi. Early in October we visited Narok District and the Mara National Reserve, spending one night on the Uaso Nyiro River, one night at Ol Joro Loremon and three nights on the Mara River. In December Mr. Hume and Major Temple-Boreham made a tour of the Northern Frontier District which took them to the shores of Lake Rudolf.

Early in January, 1957 our Secretary visited Marsabit and, accompanied by Mr. R. E. Wainwright, Provincial Commissioner Rift Valley Province, and Mr. P. H. Jones, District Commissioner Maralal, did a tour of the Matthews Range and Maralal. On May 17th Mr. Powles and our Secretary had discussions at Entebbe with Mr. R. L. E. Drechsfield, Q.C., Attorney-General and Chairman of the Uganda National Parks and Major B. G. Kinloch, M.C., Game Warden Uganda. Our Secretary then visited the Murchison Falls and the Queen Elizabeth National Parks where he met Mr. R. M. Bere, C.M.G., other Park Officials and the visiting Fulbright Research Fellows. We would here wish to record again our thanks to Mr. Drechsfield for arranging this most valuable and instructive tour. Early in July our Secretary spent three days at Arusha, Tanganyika, attending the opening of the Serengeti Committee of Enquiry where he had discussions with Mr. N. H. Vicars-Harris, the Chairman of the Board of Trustees, and with Lt.-Col. P. G. Malloy, M.C., the Director of the Tanganyika National Parks, and with Professor W. H. Pearsall. In September our Chairman and Messrs. Cowie, Hume, Hale and Howard visited the Boni area in the Lamu hinterland.

Part 2.—List of Representatives and Witnesses

KENYA GOVERNMENT

Mr. A. B. Simpson	District Commissioner, Kajiado.
Mr. R. W. E. Lewis, M.R.C.V.S. ..	Provincial Veterinary Officer, Southern Province (Masai).
Capt. D. R. P. Zaphiro	Game Warden, Kajiado.
Mr. A. J. Foster	District Officer, Loitokitok.
Mr. J. A. Gardner	District Officer, Makueni.
Mr. Gordon B. Harvey	Game Warden, Coast Province now serving with Tanganyika National Parks.
Dr. P. Glover, M.B.E., D.SC.,	Assistant Director (Zoology) Veterinary Department.
Mr. H. P. E. Lehner	Engineer and Geologist, A.L.D.E.V. Department.
Mr. A. D. Galton-Fenzi	District Commissioner, Narok.
Mr. R. T. Elliot	Game Warden, Narok.
Mr. E. F. Whiteside, M.SC.	Acting Assistant Director (Zoology), Veterinary Department.

KENYA GOVERNMENT—(Contd.)

Mr. L. F. G. Pritchard, M.B.E.	..	..	Secretary for African Affairs.
Mr. G. A. Adamson, M.B.E.	..	..	Senior Game Warden, Northern Frontier District.
Mr. R. R. Waterer, C.B.E.	..	..	Chief Conservator of Forests.
Mr. R. E. Wainwright	..	..	Provincial Commissioner, Rift Valley Province.
Mr. W. A. Wild, D.F.C.	..	..	District Commissioner, Marsabit.
Mr. R. G. Brayne-Nicholls	..	..	District Commissioner, Isiolo.
Mr. P. H. Jones	..	..	District Commissioner, Maralal.

OTHER INTERESTED PARTIES

Mr. W. J. M. Taberer	..	..	..	Warden Royal National Parks, Amboseli.
Mr. D. L. W. Sheldrick	..	..	..	Warden Royal National Parks, Tsavo.
Capt. Keith Caldwell	..	..	..	Hon. Game Adviser to the Colonial Office.
Dr. H. C. Pereira, D.Sc., Ph.D.	..	..	..	E.A. Agricultural and Forestry Research Organization.
Sir Ferdinand Cavendish-Bentinck, K.B.E., C.M.G., M.C.			}	Representing Executive Committee of the Trustees of the Royal National Parks of Kenya.
Sir Alfred Vincent, K.B.E., M.L.A.				
Mr. E. Baumann	..	..
Mr. K. A. Brown, D.S.O.	..	..
The Hon. S. V. Cooke, M.L.C.				
Dr. L. S. B. Leakey	..	..
Mr. R. R. Waterer, C.B.E.	..	..	}	Representing the E.A. Professional Hunters' Association.
Capt. Vivien Ward	..	..
Mr. D. O. Matthews	..	..
Mr. R. Destro	..	..
Mr. G. H. Dalton	..	..	..	Warden Royal National Parks, Marsabit National Reserve.
Mr. T. G. Adamson	..	..	..	Assistant Warden Royal National Parks, Marsabit National Reserve.

Part 3.—List of Memoranda Submitted to, and Other More Important Papers Considered by the Committee

Amboseli	..	..	..	..	Mr. George Nicol.
General	..	..	..	..	Mr. C. M. Mehta.
Game Preservation in Relation to Tourism.					Commander D. E. Blunt.
Poaching	..	..	..	..	Mr. D. L. W. Sheldrick, Warden Tsavo Royal National Park.
Amboseli National Reserve	..	..			East African Professional Hunters' Association.
Amboseli	..	..	..	..	Kenya Wild Life Society.
Control of Poaching	..	..	..	..	Kenya Wild Life Society.

Game in Relation to Cattle in the African Districts	Mr. E. H. Risley, District Commissioner.
Report on Water	Mr. H. P. E. Lehner, Engineer Geologist, Ministry of Works.
Investigations at Ol Tukai	Director of Royal National Parks.
Ngong National Reserve	Mr. E. R. Block, Managing Director, Block Hotels Ltd.
Cloud Cottage, Nanyuki	Mr. R. E. Wainwright, Provincial Commissioner, Rift Valley Province.
Tree Destruction by Elephant	Mr. R. E. Wainwright, Provincial Commissioner, Rift Valley Province.
Stock and Game Policy in Samburu	Mr. R. R. Waterer, C.B.E., Chief Conservator of Forests.
Report on Tour of the Chyulus, Amboseli and Namanga.	East African Professional Hunters' Association.
Memorandum	Dr. H. C. Pereira, D.Sc., Ph.D., E.A. Agricultural and Forestry Research Organization.
Note on the Importance of Isolated Forested Hills as Sources of Water in Semi-Arid Country, with Special References to the Matthews Ndoto Ranges.	
Case for Nature Sanctuaries	Mr. Noel Simon, President Kenya Wild Life Society.
Future Conservation Trends	Mr. Noel Simon, President Kenya Wild Life Society.
Report on an Ecological Survey of the Serengeti National Park, Tanganyika.	Professor W. H. Pearsall, D.Sc., F.R.S., Quain Professor of Botany, University of London.
Report of the Serengeti Committee of Enquiry, August, 1957.	Under Chairmanship of Sir Barclay Nihill, K.B.E., M.C.
The National Park Idea ORYX Vol. IV, No. 1, April, 1957.	Mr. R. M. Bere, Director of Uganda National Parks.

APPENDIX II

Definitions, Etc.

1. *Under the Convention Relative to the Preservation of Fauna and Flora in their Natural State (London 1933) as amended by the Third International Conference on the protection of the Fauna and Flora of Africa held at Bukavu.*

Article 2

(1) The expression "*national park*" shall denote an area (a) placed under public control, the boundaries of which shall not be altered or any portion be capable of alienation except by the competent legislative authority (b) set aside for the propagation, protection and preservation of wild animal life and wild vegetation, and for the preservation of objects of aesthetic, geological, prehistoric, historical, archaeological, or other scientific interest for the benefit, advantage, and enjoyment of the general public, (c) in which the hunting, killing or capturing of fauna and the destruction or collection of flora is prohibited except by or under the direction or control of the park authorities.

In accordance with the above provisions facilities shall, so far as possible, be given to the general public for observing the fauna and flora in national parks.

(2) The term "*strict natural reserve*" shall denote any area placed under public control, throughout which any form of hunting or fishing, any undertakings connected with forestry, agriculture, or mining, any excavations or prospecting, drilling, levelling of the ground, or configuration of the soil or the character of the vegetation, any act likely to harm or disturb the fauna and flora, whether indigenous or imported, wild or domesticated, shall be strictly forbidden; which it shall be forbidden to enter, traverse, or camp in without a special written permit from the competent authorities; and in which scientific investigations may only be undertaken by permission of those authorities.

Article 3

(2) If in any territory the establishment of a national park or strict natural reserve is found to be impracticable at present, suitable areas shall be selected as early as possible in the development of the territory concerned, and the areas so selected shall be transformed into national parks or strict natural reserves so soon as, in the opinion of the authorities of the territory, circumstances will permit.

Article 4

The Contracting Governments will give consideration in respect of each of their territories to the following administrative arrangements:—

(1) The control of all white or native settlements in national parks with a view to ensuring that as little disturbance as possible is occasioned to the natural fauna and flora.

(2) The establishment round the borders of national parks and strict natural reserves of intermediate zones within which the hunting, killing and capturing of animals may take place under the control of the authorities of the park or reserve; but in which no person who becomes an owner, tenant or occupier after a date to be determined by the authority of the territory concerned shall have any claim in respect of depredation caused by animals.

3. The choice in respect of all national parks of areas sufficient in extent to cover, so far as possible, the migrations of the fauna preserved therein.

2. Under Royal National Parks Ordinance, 1945, as amended

National Reserve means an area whether contiguous to a national park or not, over or in respect of which the Trustees have been granted by the competent authority complete or partial control or certain specific rights.

3. Wild Animals Protection Ordinance, 1951, as amended

Game Reserve is an area declared as such by the Governor in Council of Ministers, with the approval of the Secretary of State, by proclamation. Save as otherwise provided, no person shall hunt, kill or capture any animal or photograph any dangerous animal in a game reserve. No firearms, except those carried by public servants on duty, may be carried. Persons within a game reserve shall obey all lawful orders issued by an administrative official or game officer.

Local Sanctuary is an area not exceeding ten square miles, declared as such by the Minister, where no person shall hunt, kill or capture any animal in respect of which such local sanctuary has been declared.

Controlled Area is any area of the Colony, proclaimed as such by the Minister, which is not under the control of the Kenya Royal National Parks' Trustees or a game reserve or private land. No licence or permit granted

under the provisions of the W.A.P.O. shall be effective within a controlled area unless the licensee or permit holder has been granted a permit to enter such controlled area. A controlled area permit shall be issued by the game warden at his absolute discretion and subject to any conditions he may think fit to impose. The Minister may by notice in the Gazette specify the fee payable in respect of a controlled area or any part thereof or for any specified animal therein. All such fees shall be paid to the African District Council in whose district such controlled area is situated or to such other fund as the Governor may direct.

4. *Under the Forest Ordinance, 1941*

Nature Reserve is any forest area or any demarcated forest or part thereof declared as such by the Minister for the purpose of protecting the natural amenities and the flora and fauna. No disturbance of the flora or fauna is allowed except with the permission of the Conservator who, in regard to game, must consult the game warden. Such permission shall only be given in the case of flora with the object of conserving the natural flora and amenities of the reserve or in the case of game if the game warden considers it necessary or desirable.

It should be noted that a nature reserve is analogous to a "strict natural reserve" contemplated at the London Convention, 1933.

It should also be noted (section 8 (a) (viii)) that no person shall, except under licence of the Conservator, in any forest area, or demarcated forest—

capture or kill any animal, set or be in possession of any trap, snare, gin or net, or dig any pit, for the purpose of catching any animal, or use or be in possession of any poison or poisoned weapon:

Provided that nothing in this sub-paragraph contained shall be deemed to prohibit the capturing or killing of any animal in accordance with the conditions of any valid licence or permit issued under the provisions of the Game Ordinance, 1937.

5. *A Short Resumé of the National Reserve Regulation. (Government Notice 720 of 14.6.50.)*

Killing Capturing or Disturbing Animals (Regulation 4)

- (a) Except in self-defence, or in the protection of crops or stock, no person may kill, capture or disturb any animal unless authorized to do so by any officer, servant or agent of the Trustees.
- (b) The killing or wounding of any animal must be reported to an officer, etc. of the Trustees, who may direct that all or any part of the animal killed be handed in.

Firearms (Regulation 5)

- (c) No person other than an officer, etc., of the Trustees or a public servant on duty may carry firearms, except with the permission of the Administrative Officer or an officer, etc., of the Trustees.

Dogs (Regulation 6)

- (d) Dogs not under control may be destroyed by the order of an Administrative Officer or an officer etc., of the Trustees.

Orders (Regulation 7)

- (e) Any person in a national reserve shall obey all lawful orders, etc., issued by the Administrative Officer or an officer, etc., of the Trustees.

Closing Portions of a National Reserve (Regulation 8)

- (f) Subject to the approval of the Administrative Officer in charge of the area, any duly authorized officer, etc., of the Trustees may close any portion of a national reserve, or any road, other than a public road, to any class of traffic, or to domestic stock, and prohibit the cutting, removal or destruction of vegetation by any person. The above regulation cannot be applied to a "bona fide" resident of the national reserve.

6. *Game Preservation.*—A distinction is sometimes drawn between preservation, as connoting complete protection, and conservation where wild animals are subject to varying degrees of control, either in their own interests or in the interests of the indigenous human population. Except where the context shows otherwise, e.g., in relation to national parks, we have used the expression "game preservation" in its widest sense as covering all degrees of protection.

7. *Ecology* is the science of relations between animals and plants to their environment and to one another: the word "animals" includes mankind.

APPENDIX III**Directive by His Excellency The Governor****PROTECTION OF WILD LIFE**

I am disturbed by the grave threat to Kenya's wild life caused by the activities of poachers. These activities have recently become so extensive as to present a serious danger to the preservation of the game population of the Colony. Though it is primarily the responsibility of the Game Department to protect the Colony's game, it is the duty of all officers to help in the prevention of poaching; this duty is of special importance because the staff of the Game Department is small and cannot, with the many functions it has to perform over wide areas, give undivided attention to poachers.

2. The Wild Animals Protection Ordinance (No. 18 of 1951) makes provision for the preservation and control of wild life. Under section 8 of the Ordinance it is an offence to hunt, kill or capture any game animals, except in accordance with the conditions of a licence granted under the Ordinance. It is intended to introduce more stringent provisions.

3. Under section 12 of the Royal National Parks Ordinance (Cap. 215), it is an offence to enter a National Park without a valid permit, to possess a weapon, explosive, trap or poison, or to kill, injure, capture or disturb any animal in the National Park.

4. I wish all officers, and particularly those of the Administration and of the Police, to make themselves familiar with the relevant provisions of these Ordinances and to take all possible measures to put down poaching. I am sure that I can rely on all officers to apply themselves to this task. Kenya's game population, although unhappily diminished during the past two decades, is still a great natural asset and it is of the first importance that it should be protected.

2nd January, 1957.

E. BARING.
Governor.

APPENDIX IV

Part 1.—Note on Proper Land Usage in Relation to the Preservation of Wild Life

1. In paragraph 9 of our report we have stated—

“The preservation or conservation of game is a matter which must be taken into account, with other factors, when determining the proper land usage in any area.”

It is now generally recognized that wild life is an economic asset of increasing value to those countries fortunate enough to possess it, but modern advances in the science and practice of ecology have shown that the preservation of nature, in its widest sense, has a much deeper significance than the direct return in purely monetary values. In this note we will discuss briefly the role that the preservation of game, in its appointed place, has to play on the wider stage of nature preservation, and some of the more recent advances made in scientific thought and practice on the concept of proper land usage.

2. In a recent article entitled “The New Outlook in Ecology” (ORYX November, 1957) Mr. E. M. Nicholson, Director, The Nature Conservancy, has pointed out that discovery during the last few centuries has been mainly extensive in exploring new continents and opening up new branches of science. It was now becoming intensive in going more deeply into the possibilities and limitations of life on this planet. The proportion of good productive land on the earth's surface was comparatively small and has of late been getting progressively smaller since man has set about the mismanagement of it, by destroying his own habitat, and with it that of other animals. One of the main tasks of the ecologist was to study the extent and character of such exploitation; he now understood fairly well how to check further losses and degradations of the soil, but the process was still continuing at an alarming rate, even in the more civilized countries.

3. Professor Fraser Darling in a recent book [1] on the quite remarkable progress made in the North American Continent on nature conservation comments on the “mystique of farming”—the almost religious belief in the rightness of converting as much land as possible to agricultural production. He points out that land is man's basic resource and *it must be apportioned, not only according to the various human needs, but also according to its varying capacities of continuing yield.* In other words, every block or parcel of land has its proper “harvest” however tempting it may be to exploit that piece of land for some other more desirable, and often shorter-term, harvest. That harvest may be water, timber, food in all its forms, recreation, or the simple and continuing existence of the land in its wild and natural state.

4. In the more temperate climates a misuse of land can be borne more easily and can be repaired more quickly, but in many parts of Africa, and particularly in East Africa, with its violent contrasts of climate, the abuse of land has fast-moving effects which are disastrous. Human settlement, either pastoral or agricultural, in many of the forested water catchment areas leads to rapid erosion

Note [1].—*Pelican in the Wilderness. A Naturalist's Odyssey in North America.* Professor F. Fraser Darling.

and the inevitable drying up of the water supplies which are so vital to the lower country. In the marginal areas of erratic rainfall, abuse of the land can be equally disastrous. [2].

5. The above is, of course, no new problem in Kenya; as far back as 1933 the Carter Commission [3] drew attention to the inherent dangers in the abuse of land in many areas of Kenya. These dangers have been emphasized by many officials, departmental and otherwise, the research staff of the East African Agriculture and Forest Research Organization and other visiting scientists. They have, of course, been realized by the Government, but as we have already commented in our report, we have noted with the greatest concern the rapid deterioration in the position in many parts of Kenya. No doubt the inherent difficulties created by the lack of finance and the innate conservatism of the African pastoralists, have delayed the taking of more positive action to arrest this rapid deterioration.

6. It may well be asked of what concern is the Government's general policy (or perhaps inability to enforce its policy with the requisite speed), in regard to the conservation of land, to a Game Policy Committee? The answer is simple. The preservation of wild life can only be fully assured in national parks, nature reserves or other specialized game sanctuaries and it must be accepted that wild life must eventually and inevitably disappear from the areas of *legitimate* and intensified agricultural development both arable and pastoral. But wild life in reasonable abundance still exists in the vast areas of Kenya which surround the Highland Plateau. A permanent and redeeming feature of much of this lower country is the existence of isolated mountain masses which attract a heavy precipitation of rain on their higher slopes, and which are thereby the main, and in many instances, the only source of permanent water for the lower country. It is to these areas that we have naturally directed our main attention, and the great weight of scientific evidence, as we have indicated briefly above, shows that it is in these two classes of land that the "proper land usage" is of vital importance. If the land is abused nature will enforce a rapid retribution. The permanent sources of water will dry up and vast areas of pastoral land, which if properly managed would continue to support animal life, will become a semi-desert. It will, as Dr. Pearsall states in his report, (*see* note [2]), "become useless for the maintenance of wild life or domestic stock or for any other purpose". This general problem of the conservation of water and land is therefore of the utmost concern of this Committee.

Note [2].—As we have already mentioned in our report when dealing with the Samburu country, this important subject is dealt with in a memorandum submitted to us by Dr. H. C. Pereira, Deputy Director of the East African Agriculture and Forestry Research Organization (Appendix IV, Part 4). It is also covered most authoritatively by Professor Pearsall in his report on the Ecological Survey of the Serengeti National Park, Tanganyika, published in April, 1957. As the problems of wild life preservation in the Serengeti National Park, and in many parts of Kenya, are similar in nature, extracts from Professor Pearsall's report and a short resumé of the history of the Serengeti National Park, which culminated in the recent report of a Committee of Inquiry under the chairmanship of Sir Barclay Nihill, are given in Appendix IV, Part 2.

Note [3].—The Report of the Kenya Land Commission, 1933.

7. Wide experience has shown that wild life, if left undisturbed in its natural habitat, will not destroy that habitat [4]. It has, during the course of time, achieved its place in the balance of nature. In those areas where the proper land usage dictates that there shall be no interference with nature, or only the most strictly and carefully controlled interference, wild life can continue to exist without detriment to the land and should be allowed to do so [5]. Such areas would include the vital forested mountain catchment areas and some of the semi-arid regions. The emphasis here is on the proper protection of the land and the continuing existence of wild life is therefore incidental to the main purpose.

8. In other areas, where special conditions obtain, the direct recreational and economic return from game preservation will far outweigh the economic return by any other form of agricultural development. The small Nairobi Royal National Park is an outstanding example. Here the preservation of wild life is not incidental to proper land usage; it is the positive and direct proper land usage of the area.

9. In the African pastoral areas and in particular those areas of high faunal interest where the presence of game is a recognized economic asset (e.g. Amboseli), the proper land usage is for the game to share the land with the stock. The view is often expressed and is firmly held, particularly by some European ranchers, that the presence of game is incompatible with ranching. This is true in most areas of close farming. But in the extensive ranching areas it is only true in relation to certain species of game, e.g., the predators, large animals which destroy fences etc., and the grazers (zebra, wildebeest, etc.) in appreciable quantities. This has not in fact prevented some ranchers from adopting a policy of wholesale extermination of all species of animals on their land. While the legal right to destroy animals (within the provisions of the Wild Animals Protection Ordinance) which are damaging property is not disputed, this wholesale destruction, particularly in areas adjacent to the African pastoralist, increases immeasurably the already difficult task the Administration has in putting across the Government's policy for game preservation to the African pastoralist.

10. In an interview broadcast last year from Nairobi, Dr. Fraser Darling pointed out that while some game control was necessary, this wholesale extermination of all game in ranching areas was not only unnecessary but was in many cases harmful to the farmer's interests. Among other effects, the elimination of the browsing animals, which do no harm to the grazing, upsets the balance of natural coverage and leads to a very rapid increase in useless bush. Furthermore, recent experience in Northern Rhodesia has shown that certain species of game under control can share grazing areas with cattle without detriment to the interests of both. In 1955 legislation was introduced to encourage the preservation of game on private land and areas under the direct control of native authorities. By the end of 1956 fifty-three private game areas had been declared and as the Director of the Game and Tsetse Control Department commented in his annual

*Note [4].—*The emphasis here is on the word "undisturbed". In some of the areas of East Africa, which are now national parks, man has, from time immemorial, been one of the predators. His recent removal from the scene may seriously upset the balance of nature. This has, in fact, occurred in the Queen Elizabeth Park in Uganda where the hippopotami in the Kasinga Channel and around the shore of Lake Edward, have so increased that they are fast destroying the littoral habitat, thereby causing serious gully erosion. It has been estimated that the total hippopotami population in the Park is 10,000 and that to restore the balance some 5,000 may have to be disposed of. It is now generally recognized that game control, based on scientific evidence, will become an important factor in the management of some national parks. This will apply in particular to elephant in some of the forested national parks. As they will be "disturbed" in the lower country they will tend to concentrate in the seclusion of the parks.

*Note [5].—*Professor Pearsall's Report—Appendix IV, Part 2.

report for 1956, "the private game area concept has obviously appealed to those farmers who have over the years taken pains to conserve their game, and whose efforts give lie to the sweeping assertion so often heard that game and agriculture are undoubtedly incompatible".

11. The sharing of the land will involve the control of both stock and game in their mutual interest. It will also require the full co-operation of the African pastoralist and this will not be easy. But it must be attempted as it is pastoralist's opposition to stock control which constitutes the greatest danger to the fertility of the soil. In the past a reasonable control of stock, and so the balance of nature, was maintained by disease. In more recent years this balance has been seriously upset by making the results of veterinary science available to these pastoral tribes with little regard to the carrying capacity of their land. In the interests of proper land usage, and so of the pastoralists themselves, there would appear to be a strong case for the supply of drugs to be contingent on the acceptance of proper stock control, even if a refusal to co-operate on these terms endangered to some extent healthier and properly managed stock in other parts of the Colony.

12. Game management with the regular and systematic culling of game animals is a further extension to this concept that the conservation of game can be a proper form of land usage. In many of the marginal areas of Kenya where game still exists, pastoral development is either impossible, mainly for the lack of water, or at the best uneconomic; such development brings with it the almost inevitable danger of soil devastation. In these areas suitably managed herds of game will yield as much, if not more, protein meat as cattle, with no danger to the soil. It should not be forgotten that most of the game laws in Europe were designed not with the object of saving wild life for aesthetic reasons, but in order to save that wild life so that it might be "cropped" annually. Much successful nature conservation in other parts of the world is now being based on controlled cropping. Denmark, a small and highly developed country, has an extremely efficient management and it is now necessary to shoot over 18,000 deer annually in order to keep the deer population within the carrying capacity of the land. Again, in Sweden, before the First World War, elk were hunted indiscriminately and about 1,500 a year were being culled and the species faced extinction. A proper management system was devised and, today, no less than 15,000 are hunted under licence every year and the species is still on the increase. Twenty years ago, in the United States, in one area of approximately 700 square miles, the deer were being indiscriminately slaughtered and were on the verge of extinction. By introducing strict game management methods the stage has now been reached where an annual crop of 40,000 deer is harvested by licensed hunters and the revenue thus received makes the scheme financially self-supporting.

SUMMARY

13. The greatest danger to the continuing existence of wild life in Kenya lies not in poaching, which must and can be controlled, nor in hunting, which can also be controlled, but in uncontrolled human development or development which is not related to or based upon the scientific needs of the land. It is within the concept of proper land usage that the preservation of wild life has its rightful place in the balanced economic development of Kenya.

Part 2.—A Short Resume of the History of the Serengeti National Park in Tanganyika

When the Serengeti National Park was first created in 1940 under the Tanganyika Game Ordinance, the rights of some 9,000 Masai to live their traditional lives within the area was safeguarded, and little thought was given to

the ultimate consequences. It was hoped at the time, however, that the Masai, attracted by the proposed provision of additional water supplies in other areas would eventually move out of the Park. In 1951, this Park, with some appreciable amendments to its boundaries, was declared a National Park under the National Parks Ordinance, enacted in 1948, and powers of administration were given to the Trustees. Thus some 4,800 square miles of land passed out of the immediate day to day control of the Government and its officers, but as the Ordinance states:—

“Nothing in this Ordinance contained shall effect the rights of any persons in, or over any land acquired, before the commencement of this Ordinance.”

The rights of a large residential population were entrenched, and the area thus designated a National Park was not a National Park as envisaged by the London Convention of 1933. Although the Trustees have wider powers than those exercised by the Trustees in Kenya National Reserves, the so-called Serengeti National Park was, in fact, analogous to a Kenya National Reserve”.

2. The seeds of its own destruction were thus sown at its birth. The inevitable conflict arose as the Trustees became the powerless witnesses of the gradual, but inevitable, devastation of an area of international fame, the preservation of which had been entrusted to their protection. By 1955 it was recognized by all concerned, the Government, the Trustees and the Masai, that the whole system had broken down. The Government, defeated by a cycle of dry years, was quite unable, even if it had been willing, to honour its undertaking to limit access to the Park to those Masai who had rights prior to 1951. The Park Authorities dismayed at the rapid deterioration in the situation, did their best to protect the interests of the Park. The Masai who had been led to believe that their “rights” in the Park were virtually unfettered, resented the increased interference, and relations between the two latter became strained. It became obvious that this situation could not continue and the Trustees were forced to the conclusion that the continued presence of the Masai and their domestic stock within a National Park was irreconcilable with the purposes for which the Park was created. As it was obviously impossible to exclude the Masai from the whole of the Park area of some 4,800 square miles, the only solution appeared to be in dividing the Park into areas of undisputed spheres of interest, game and human.

3. After prolonged discussions and negotiations the proposals of the Tanganyika Government were incorporated in a White Paper published in 1956. The main objective was to preserve the unique nature of wild life, with its mass migration based on Western Serengeti, and secondly, to preserve the spectacular concentrations of game in the Ngorongoro Crater and Embagi Crater, and the Government, in brief, proposed that these three areas comprising some 1,860 square miles should be reconstituted as National Parks in which the Masai would surrender all existing rights, and that the central Serengeti plains extending over some 2,600 square miles should be protected, under special legislation which would protect the game interests while providing for free access by the Masai and their stock. These proposals fell far short of what the Trustees had considered to be their minimum requirements, but the need to find lasting security was most urgent and the Trustees, therefore, accepted these proposals on the principle that half a loaf was better than no bread at all. But other interested parties were of the opinion that the half loaf offered no such security as the Government’s proposals appeared to be based more on what the Masai were prepared to offer than on the minimum scientific requirements for the preservation of wild life.

4. The Wild Life Societies of Kenya and Tanganyika were quick to realize the dangers to the long-term preservation of game inherent in the White Paper proposals. International opinion was roused and the Fauna Preservation Society

proposed to the Colonial Office that before any changes were made in the Serengeti National Park, an ecological survey of the area should be made and an independent enquiry be held. The Tanganyika Government agreed to appoint a Committee of Enquiry and welcomed the proposal to send a small British scientific team to the area. The Fauna Preservation Society of Great Britain accordingly arranged for Dr. W. H. Pearsall, D.Sc., F.R.S. (Quain Professor of Botany, University of London) to visit Tanganyika. This he did in November and December, 1956 and his report on the Ecological Survey of the Serengeti National Park, Tanganyika, was published in April, 1957.

Sir Barclay Nihill, K.B.E., M.C., late President of the Court of Appeal for Eastern Africa was appointed Chairman of the Committee of Enquiry to report and make recommendations on the future of the Serengeti National Park. The other members were—

Sir Landsborough Thomson, C.B., O.B.E., D.Sc., President of the Zoological Society of London.

Mr. J. F. Mustall, O.B.E., Late Conservator of Forests, Burma.

Chief Humbi Ziola, M.B.E.

The Report of this Committee was published in October, 1957. In arriving at its recommendations, this Committee had the inestimable advantage, which it duly acknowledged, of having before it the unemotional scientific survey of the Serengeti embodied in the Report by Dr. Pearsall, who also gave evidence to the Committee. This outstanding report is a clear exposition of the concept of proper land usage in both marginal and forested areas, based on an ecological survey of these areas, and is a most valuable contribution to the general study of the problems of wild life preservation in Africa.

5. As the conditions and problems of the Serengeti National Park are similar to the many areas of faunal interest in Kenya, and as Dr. Pearsall's findings give authoritative support to many of the conclusions we have already arrived at, when studying conditions in the Masai Land Unit, particularly Amboseli, and in Samburu country, relevant extracts from his report are given below:—

(a) "In a country like the Serengeti, most of which is marginal to human occupation, allotment of territory to particular competitive uses is primarily a problem of the most suitable forms of land-use in a given area. If permanent solutions are to be found, they must take account of the diverse ecological potentialities of the area; and development must be based on these potentialities."

(b) "It is almost universally the case that herded animals do more damage than wild game of similar requirements and similar numbers."

"The Masai, like most other experienced grazers, have learnt to spread the grazing effect a little, but are, as is common among pastoralists white or dark, practically indifferent to any but the most immediate results of grazing. The significant point in this connexion is not so much the question of whether the Masai are good or bad pastoralists or land users, but that over this area they are operating in tension zones in which the adverse effects of heavy grazing and cattle feeding are liable to be specially severe. It is in this type of country throughout North Africa, the Middle East and India, that uncontrolled grazing is known to have produced a sort of ecological rake's progress. . . ."

"Signs of dessication due to overgrazing were very marked in areas used by the Masai. The absence of overgrazing effects in areas with large concentrations of game was a matter of great interest and worthy of detailed study.

It appeared to be associated partly with the widespread and continued steady movement of animals from one pasture to another. But no doubt the time of grazing after rains was most important. . . .”

“Almost every paper on the subject of the Serengeti refers to the rights of the Masai in this area. None that I have seen mentions any duties or obligations or in any way defines the status necessary to exercise these rights”. (Section 3: Population.)

(c) “In discussing water conservation it should be remarked that the control of the catchment areas is vital to the future of the human population of the Crater Highlands. The manner in which human settlement and woodland clearance is taking place on the collecting grounds on the main permanent waters is appalling to anyone interested in conservation and contrary to all the experience obtained in India and in other parts of the world with similar climates. Almost every mountain seen in this survey and every woodland showed serious fire damage, even excluding the extensive zones of fire-resistant grassland or mountain heath which may be ancient in origin.”

“Places of this type are naturally attractive to native pastoralists or agriculturists for their occupation offers for some years the exploitation of soil fertility accumulated under woodland. The distribution of domestic animals around the highest peaks shows that this is what is happening generally in the Crater Highlands. The use of fire to control the derived grasslands and to clear the woodlands is not only wasting this fertility, but is inexcusable in catchment areas because it exposes the soil to increased evaporation as well as to the erosion which is liable to follow in the steeper slopes. The objection that cleared land if left will grow up to forest again through a dense scrub or thicket impenetrable to animals is based on a mistaken conception that the best use of all land is for agriculture, pastoral or arable. This is not the case in vital water conservation areas.” (Section 4: Water (iii) Water Conservation.)

(d) In general, development should not be based only on the amenity interest and tourist traffic, but on the assumption that game preservation is a form of land use”

“There is, however, a larger point in a country like Tanganyika. where so great an area is covered by forms of bush. Scientific study of this type of country and of its conservation and experimental development would no doubt be likely to yield results of great value in other fields, as well as being the basis on which long-term game and habitat preservation must be planned.” (Section 9: Development.)

6. The detailed recommendations of the Serengeti Committee of Enquiry are of no direct concern to this Committee; they are, however, based on the recognition that the boundaries of the Serengeti (West) National Park must be determined on scientific knowledge and must be adequate to protect the main migrations, and that the main objective of the Ngorongoro Crater Highlands must be the conservation of water and forest, primarily in the interests of man. But much of the report is of general interest and appropriate extracts are given below:—

(a) Paragraph 40:

“National Parks are international assets, and we believe that they should be secured, as far as possible, against frequent changes of policy or of personalities in governments, and we appreciate that to achieve this objective our recommendations must be based not only on scientific desirability, but on general equity in the widest sense of that term.”

(b) Paragraph 43:

"We have been told that overgrazing by herded stock is proportionally more destructive than that by wild animals; but whereas it is generally assumed that cattle holdings should be limited to the carrying capacity of the land used, it should also be appreciated that where any area is set aside for wild animals the same principle may apply in some degree."

(c) Paragraph 49:

"We have been impressed by the evidence that the Masai cause little direct damage to wild animals, do not as a normal practice eat game meat, and appear to be well disposed to the project of preserving the fauna of the Serengeti. We appreciate that this attitude is exceptional among African tribes, and that the continued abundance of wild animals in the Serengeti may well be attributed to Masai influence there."

(d) Paragraph 50:

"It is a first principle in the preservation of animal species that their natural habitat must be conserved, since every species is adapted to a particular mode of life, usually associated with a certain type of environment, and few are versatile enough to survive under changed conditions. Destruction of environment is thus likely to be even more deadly to a species than direct attack on its numbers by hunting and poaching."

(e) Paragraph 51:

"It is now generally recognized throughout the world, when dealing with conservation projects of this kind, that there should be certain areas where the interests of nature conservation should be predominant, and other areas in which conservation is practised only to an extent compatible with such different forms of land usage as the economy of the country demands."

(f) Paragraph 52:

"The duality of interests at present existing in the whole area of the National Park has left the control of human inhabitants, and that of wild life in the hands of different authorities. One outstanding impression which we have formed is of the incompatibility of dual control in any national park which entails two sets of priorities, one applied by government and the other by a Board of Trustees. The restraints imposed by the Park staff are resented by the local inhabitants, and the confusion of authority must inevitably lead to misunderstanding between the officers of the Park and those of the Government, even where personal relations are good. Such conditions render co-operation difficult, especially in dealing with such a proud and independent tribe as the Masai, who regard the Serengeti, at least to the provincial boundary, as having been part of Masailand during the period of recent tribal memory, and who cannot be expected to sympathize with the objects of wild life preservation for its own sake when it conflicts with their own immediate interests. It is understandable that this point of view should be shared by Government officers entrusted with responsibility for the Masai in the area, particularly because the existing legislation does not appear to limit the pastoral activities of the tribe in the Park, other than in forest reserves. It is equally understandable that such a point of view should be regarded by the Park authorities as obstructive to the interests with which they are charged by the Ordinance."

This paragraph summarizes so clearly the inherent weakness of dual control, and is so opposite to the difficulties we have found in the administration of the National Reserves in Kenya that we have quoted it in full. We hope that the realization that these difficulties are not peculiar to Kenya may be of some consolation to the Trustees of the Royal National Parks.

(g) *Paragraph 78:*

"We accept the principle that a national park established for the preservation of wild animal life in Africa is not likely to succeed as a long-term project unless human rights are excluded from the area so designated."

(h) *Paragraph 79:*

"It follows from our recognition of this principle that we are not prepared to recommend a national park area which includes human habitation so extensive that the removal would place an impossible burden on Government in the fact of opposition from the tribes and persons affected. Even when a case for inclusion could be made out from the point of view of wild life preservation, we have kept in mind the fact that a Government must act justly to those under its governance and should not be asked to sponsor a scheme which could not be made to appear a just and equitable one to the peoples most concerned in its implications."

(i) *Paragraph 90: . . .*

"It has been cogently argued before us that the question is not so much one of animal needs as balanced against the needs of man, but that wild life preservation is in itself a form of human right, in that it is widely prized throughout the world. It is therefore our first concern that all practicable measures to preserve this asset should be taken."

(j) *Paragraph 123: . . .*

"It is not possible for us to estimate the extent of the financial commitment involved but that it will be considerable we have no doubt. . . ."

"It is not for us to suggest to Government ways and means of securing the necessary funds, but in view of the widespread international interest shown in the White Paper and in this Enquiry, we cannot refrain from expressing the hope that those countries outside Africa who have shown their concern for the preservation of wild animal life within East Africa will be the first to come forward with offers of material aid."

Part 3.—East African Royal Commission, 1953/1955, and Game Preservation

The Commission dealt with the preservation of game in Chapter 22 of its Report under the heading of "Alternatives to Customary Land Use". Its views are summarized in two recommendations; these, together with the comments of the Kenya Government, are as follows:—

"RECOMMENDATION NO. 6

While accepting the responsibility of game preservation and its financial importance to the Colony, where the interests of humans and game conflict, generally speaking, the need of the former should be considered paramount."

Note.—This appendix illustrates well the great advantage and value attaching to an ecological survey by an eminent scientist and to the appointment of an independent Committee of Enquiry, when an unresolved conflict of interests arises in an area of high faunal importance.

Comment by Kenya Government

"Accepted, but it must, however, be pointed out that the immediate requirements of a particular group may on occasions conflict with the importance of game to the Colony's economy as a whole. This is pointed out by the Commission themselves in the last sentence of paragraph 22 (1), and the last sentence of paragraph 23 (2)."

RECOMMENDATION NO. 7

The position of reserves and parks should be periodically reviewed and game reserves should not be regarded as immutable."

Comment by Kenya Government

"Accepted. The Government has already appointed a Game Policy Committee to carry out a thorough review of these and related matters. The Committee will study in detail the application of recommendations 6 and 7."

The general line of thought, it can hardly be called policy, of the Royal Commission, may be summed up in the last sentence of its paragraph 25 which precedes Recommendation 7:—

"The preservation of game must not be allowed to stand in the way of the current need for proper land usage, but for the time being there is plenty of land in East Africa which man has not yet learned to turn to productive use, and which can be left to the game to enjoy."

The logical sequence to this view would be that game would eventually be left only in areas of no use for human development, and as ordered human development advances, reserves and even parks would slowly, but inevitably, disappear. The Royal Commission, in fact, appeared to view proper land usage only in relation to human usage. Fortunately, the Kenya Government has not accepted this somewhat negative attitude, as is shown by its comment to Recommendation No. 6 and this Committee's second term of reference.

Part 4.—A Note on the Importance of Isolated Forested Hill as Sources of Water in Semi-arid Country, with Special References to the Matthews and Ndoto Ranges

MEMORANDUM BY DR. H. C. PEREIRA, D.Sc., Ph.D.

1. The presence of forests indicates heavier rainfall due to topography. The forest is the result, not the cause, of the rain and, although the evidence suggests that it improves distribution of rainfall, it does not appear to affect the total annual quantity.

2. These forested features give rise to streams, rarely perennial in areas of low and erratic rainfall, but usually continuing their flow underground as "sand rivers" far into the dry season. The waterholes in these "sand rivers" are the only possible supply for large pastoral populations of men and animals.

3. There is often a slow, steady underground flow in and near the hills which generate these "sand rivers". Further away, storage is merely that of the flood-water which sinks into the deep layers of sand silt in the river bed and is there stored. Soon after the end of the brief season of spates, this stored water is readily obtained by digging holes. The levels in those holes more distant from the mountains fall steadily throughout the dry season and the labour of raising the water, by hand, becomes formidable, three people often standing one above the other to pass up their containers.

4. The way in which the heavier rainfall on the hills is distributed along this sand river system depends primarily on the land use of the catchment area. If this is protected from grazing and trampling, infiltration rates remain high and a substantial proportion of the rain is stored in the soils on the flanks of the hills. This drains slowly underground into the "sand rivers" and maintains a slow underground flow.

If, however, large numbers of cattle are driven into the forest on the slopes of the hills and allowed to destroy the vegetative cover, infiltration rates fall rapidly, little of the water is stored during the rainy season, the violence of the spates is greatly increased. Subsequently, as the water stored in the sandy riverbeds is baled out to supply large herds of cattle, there is no underground flow from the hills into the stream-bed to replace it.

5. This adverse effect of trampling by cattle is a well-established fact, and not merely an opinion. In an experiment in the Appalachian Mountains in the U.S.A., grazing of forested catchment areas at the low-stocking rate of one beast per 24 acres increased the river spates by over four times in magnitude. In a study by E.A.A.F.R.O. Physics Division of a 15-year long rotation experiment in Uganda, on sandy basement complex soil very similar to that of much of Kenya's N.F.D. it was found that trampling by cattle completely eliminated the infiltration benefits from a three-year grass ley. At Muguga, carefully controlled grazing in good star-grass pastures on 14 per cent slopes has resulted in run-off which filled the terrace ditches. In areas in which it is vital that the maximum possible proportion of the rainfall should soak into the ground and the minimum should run off, grazing cannot be permitted.

6. In these semi-arid pastoral areas the rainfall on the isolated hill features is the only possible source of water. Boreholes in the surrounding plains cannot succeed, since there is no source of water to recharge the underground supplies on which they draw. The rainfall in these areas is far less than the annual evaporation and evapotranspiration of the vegetation. These very favourable geological conditions may give a temporary supply of water, stored in some cases for centuries from years of exceptional rainfall, but such supplies cannot last.

7. With overstocking in the surrounding plains and early exhaustion of the lower waterholes, pressure of cattle on the forested hill slopes has led in several cases to severe damage to the efficiency of the catchments. Dr. C. R. Hursh, the distinguished American hydrologist, drew attention to the dangers of this process in 1952 (in the E.A.A.F.R.O. Annual Report).

8. It is therefore clear that if the semi-arid grasslands are to support a permanent population of men and cattle, the stream sources must be protected. If action is delayed until the catchment areas are actively eroded, the position will be irretrievable and the populations will inevitably have to move elsewhere.

9. With Mr. Waterer, I studied the Leroghi Plateau in 1953 where these considerations specifically apply. I have not yet been able to visit the Matthews and Ndoto Ranges, but will do so during next year (1958), if requested.

The necessary preliminary collection and study of the sparse facts on geology, meteorology and ecology of these areas, together with the time and effort spent in reconnaissance will, it is anticipated, be substantial. I suggest, however, that such an undertaking would be pointless unless there is considered to be some prospect of remedying any defects found in the land use of these remote areas.

East African Agricultural and Forestry
Research Organization, Muguga.
8th August, 1957.

H. C. PEREIRA,
*Deputy Director, E.A.A.F.R.O.,
and Head of Physics Division.*

APPENDIX V

Proposed Amendments to the Wild Animals Protection Ordinance and to the Royal National Parks Ordinance to Give Effect to the Establishment of Game Reserves and Game Reserve Committees

In paragraphs 14-19 of our Report we have indicated some of the reasons why we think that the present administration of the wild life interest in National Reserves under the exclusive control of the Trustees has run into difficulties. We have therefore recommended that National Reserves as such be abolished and be replaced where appropriate by more limited Game Reserves when a trial will be given to administering them as a joint enterprise of the Government, the Trustees and the local inhabitants. As the Government is to retain the responsibility for game management, while the Trustees have the duty and necessary powers, should they accept them, of developing the recreational aspect in these Game Reserves, both the Wild Animals Protection Ordinance and the Royal National Parks Ordinance will require amendment.

PROPOSED AMENDMENTS TO THE WILD ANIMALS PROTECTION ORDINANCE
No. 18/51

Part 1—Preliminary

Section 2—Interpretation

Delete "Kenya National Parks' Trustees", etc., and *substitute*—

"The Trustees of the Royal National Parks of Kenya" means the Trustees of the Royal National Parks of Kenya established under the Royal National Parks Ordinance (Cap. 215).

Add—

"Officer of the Kenya Royal National Parks" means any officer, servant or agent of the Trustees of the Royal National Parks of Kenya acting under the authority of such Trustees and exercising the rights, powers, duties and functions conferred on him by section 8 of the Royal National Parks Ordinance (Cap. 215).

Delete "national park" and "national reserve" etc., and *substitute*—

"national park" has the meaning assigned thereto by the Royal National Parks Ordinance (Cap. 215).

Part II

Game
Reserves.

Section 3

Delete section 3 and *substitute* the following:—

3. (1) The areas described in the First Schedule to this Ordinance are hereby declared to be game reserves.

(2) The Governor in Council may by notice in the Gazette declare any other portion of the Colony to be a game reserve, and may in like manner alter the limits of, or abolish, any game reserve established under this Ordinance, provided that before declaring an area to be a game reserve and before altering the boundaries of a game reserve, the Governor shall, in the case of land situate in the Highlands, consult the Highlands Board and, in the case of land situate in the native reserves, the temporary native reserves and the native leasehold areas, the Governor shall, in the first instance, consult the Trust Board.

(3) Save as in this Ordinance otherwise expressly provided, or as provided in the Royal National Parks Ordinance, no person shall hunt, kill, capture or photograph any animal within a game reserve.

(4) Save as provided in the Royal National Park Ordinance no person, other than a person employed in the public service acting in pursuance of his duty, or a person proceeding along a public road, shall enter a game reserve.

Provided that this sub-section shall not apply to any person who, in the opinion of the administrative officer in charge of such area, is normally and lawfully resident within a game reserve.

(5) No person, other than a person employed in the public service acting in pursuance of his duty, shall carry a firearm within a game reserve unless he has received permission to do so from the administrative officer in charge of such area or from the game warden or from an officer of the Royal National Parks; provided that nothing in this section shall prohibit any person from carrying a firearm while such person is proceeding along a public road within a game reserve.

(6) Any dog found at large and not under control within a game reserve may be destroyed by the order of the administrative officer in charge of the area, or by a game officer, or by an officer of the Royal National Parks.

(7) Any person being within a game reserve shall conform to and obey all lawful orders and directions issued by the administrative officer in charge of the area, or by a game officer, or by an officer of the Royal National Parks.

(8) Any person who contravenes the provisions of sub-sections (3), (4) or (5) of this section, or who fails to comply with the provisions of sub-section (7) of this section, shall be guilty of an offence against this Ordinance.

(9) (a) The Minister shall, by notice in the Gazette and after consultation with the Trustees of the Royal National Parks of Kenya, appoint a Committee for one or more game reserves for the purpose of facilitating the administration of such reserve.

(b) Such a Committee shall consist of the administrative officer in charge of the district in which the game reserve is situated, who shall be chairman, a representative or representatives of the Ministry of Forest Development, Game and Fisheries, and a representative of the Royal National Parks and two persons representing the local government authority.

(c) Such a Committee may, in respect of the game reserve for which it has been appointed, exercise such powers and carry out such duties and functions as the Minister may by notice in the Gazette, confer upon it.

Permit to Photograph a Dangerous Animal

Section 16 (3)—Delete.

Section 16 (4) (c)—Delete.

Section 20—Licence does not entitle hunting in national parks.

For "national reserve" read "game reserve" throughout.

Section 32 (3)—Prohibition of unlawful possession of game animals or trophy, or meat.

For "national reserve" read "game reserve".

C—PROPOSED AMENDMENTS TO THE ROYAL NATIONAL PARKS ORDINANCE
(Cap. 215)

Section 2—Interpretation—Delete "national reserve", etc., and substitute:—

"game reserve" means any area which has been gazetted as such under the provisions of section 3, of the Wild Animals Protection Ordinance, in respect of which the Governor has granted to or conferred upon the Trustees all or any of the rights, duties and functions, specified in section 8 under this Ordinance;

Section 5—Board of Trustees—Amend sub-section (1) to read:—

"for the purpose of controlling and managing royal national parks and for the exercise of the rights conferred upon them by this Ordinance in game reserves, there shall be established a Board of Trustees, etc."

Amend sub-section (1) (c) to read:—

"game reserve" wherever "national reserve" occurs.

Section 6—Trustees to manage, etc., National Parks.

Delete "and national reserves" in line 2 of sub-section (1).

Section 7—Boards of Management—Delete the expression "or national reserve" wherever it occurs.

Section 8—National Reserves—Delete and substitute the following as a new section 8 with sub-title of—

"Trustees may accept certain rights, etc., in game reserves."

"(1) The Governor may grant to or confer upon the Trustees, and the Trustees may accept, all or any of the rights, powers, duties and functions in a game reserve as are specified in this section:

(2) The Trustees may within a game reserve and with the consent of the Minister—

(a) construct such roads, bridges, aerodromes, buildings and fences, provide water supplies and carry out such other works as they may consider necessary for the development of a game reserve as an area of recreational, cultural and aesthetic enjoyment;

(b) control the entry of, and charge and collect fees from, members of the general public entering a game reserve, and specify the conditions under which such members of the general public may remain there:

Provided that this sub-section shall not apply to a member of the Trustees or any officer or servant of the Trustees acting under the authority of the Trustees, or to a person employed in the public service acting in pursuance of his duty, or to a person proceeding lawfully along a public road, or to any person who, in the opinion of the administrative officer in charge of the area, is normally and lawfully resident within a game reserve;

(c) provide temporary accommodation and other recreational facilities for, and charge and collect fees from members of the general public for the enjoyment of such accommodation or other recreational facilities.

(3) When any of the rights, powers, duties or functions presented in sub-section (2) (a) to (c) have been granted to or conferred upon the Trustees and the Trustees have accepted them, the Minister shall cause a notice to be published in the Gazette specifying the rights, powers, duties or functions so granted or conferred."

(4) The Trustees may within a game reserve perform any other specific duties or exercise any other specific rights as the Minister may by notice in the Gazette, with the consent of the Trustees, assign to or confer upon them.

*Section 13—Powers of Officers of the Trustees—*For the expression "national reserve" wherever it occurs in sub-section (1) *substitute* the expression "game reserve".

*New Regulations in Game Reserves—*After section 18 *insert* a new section:—

18A. (1) The Trustees may, with the approval of the Minister, make regulations for game reserves with respect to all or any of the following matters:—

- (a) the powers and duties of officers and servants appointed by the Trustees in regard to the exclusion of members of the general public from a game reserve or any part thereof;
- (b) the conditions subject to which permission to enter a game reserve may be granted to members of the general public and the periods or times during which a game reserve or any portion thereof shall be open to the public;
- (c) the conditions under which the services or attendance of officers or servants of the Trustees or the services or attendance or any other person licensed by the Trustees, may be obtained by any person entering, passing through or sojourning within a game reserve, and the fees to be paid in respect of such services or attendance;
- (d) the fees to be paid for permission to enter or reside in a game reserve, for the admission of motor-cars or other vehicles and for the taking of photographs within a game reserve or for any other purpose connected with the use and enjoyment of a game reserve;
- (e) the regulation of traffic over any road in a game reserve constructed and maintained, or any road maintained, by the Trustees.

(2) The Trustees may make different regulations in respect of different game reserves.

APPENDIX VI.—SUMMARY OF RECOMMENDATIONS SUBMITTED IN THE INTERIM REPORT (31ST AUGUST, 1956) AND OF ACTION ALREADY TAKEN

Amboseli National Reserve

OL TUKAI

(1) That as a matter of immediate urgency, steps be taken to rescue the Ol Tukai area of the Amboseli National Reserve by—

- (a) installing at an estimated cost of £78,000 an alternative piped water supply with a minimum of seven cattle watering points outside the forest belt surrounding the Ol Tukai swamps;

N.B.—All the above proposed amendments and other proposed amendments throughout this report have been drafted to convey the intention of the Committee. They have *not* yet been scrutinized by the law officers.

- (b) thereafter, enforcing restriction of the number of cattle and stock watering at these seven points; the number of cattle permitted to water at each point being specified by administrative arrangement;
- (c) enforcing restriction on the numbers of cattle or other stock permitted to enter the Ol Tukai swamp area for the purpose of grazing; the number to be decided by the experts, having regard to the carrying capacity of the usable area of 200 square miles, and to the grazing requirements of game.

The whole question of the most economical methods of providing alternative water supplies, including the possibility of shallow boreholes, is being actively investigated by the Hydraulic Engineer, Ministry of Works.

Tsavo Royal National Park (West)

ILTILAL/NJUGINI EXCHANGE

(1) That the eastern boundary of the Masai Land Unit, in the neighbourhood of the Iltilal Spring, be adjusted to run through the crest of Chamwe Hill and that an area of approximately 3,630 acres be excised from the Tsavo Royal National Park (West) and be added to the Masai Land Unit.

(2) That a triangular area of approximately 3,630 acres bounded on the north by the Njugini River, on the south of the Tsavo River, and on the west by a line running approximately south south east from Njugini beacon be excised from the Masai Land Unit and be added to the Tsavo Royal National Park (West).

(3) That an area of Crown Land of approximately 5,800 acres to the west of [2] above be added to the Tsavo Royal National Park (West).

The gazetting of these recommendations would be put in hand with other boundary adjustments, reconsidered in the final report and accepted.

Poaching

That the Trustees of the Royal National Parks be provided with more money to enable them to engage extra staff on a temporary basis for three years, with a view to mounting a special anti-poaching drive in close co-ordination with the Game Department, Police and Administration.

As we have already indicated in the main report, the Ministry of Forest Development, Game and Fisheries, with the co-operation of the Trustees, commenced action before the Interim Report was submitted.

Enforcement of and Amendments to Wild Animals Protection Ordinance.— Amendments to the Royal National Parks Ordinance

(1) That a directive should be issued, at a high level, stating in clear terms that it is the direct responsibility of all officers of Government, particularly Administrative and Police Officers, and of Officers of Local Government Authorities, to ensure that the provisions of the Wild Animals Protection Ordinance are enforced with vigour. A Directive in these terms was issued by Your Excellency on the 2nd January, 1957. (Appendix III.)

(2) That the attention of Magistrates and of the Police be drawn to the Judgment of Her Majesty's Court of Appeal for East Africa in Criminal Appeal No. 931 of 1954.

The judgment laid down the principles to be followed in the use of "traps" to effect the arrest of criminals.

(3) That the Wild Animals Protection Ordinance be amended as follows:—

(a) PENALTIES

(i) *Section 45 (1)*.—“Ivory” and “Leopard Skin” to be added to “Rhinoceros Horn” and the penalties be increased to a fine not exceeding Sh. 20,000 or to imprisonment for a period not exceeding five years, or both; and add “that the Court may, in addition, order the confiscation of any vehicle knowingly or deliberately used in the commission of an offence under this section”;

(ii) *Section 45 (3)*.—Penalties to be increased to Sh. 10,000 or three years’ imprisonment, or both, and the maximum fine in respect of each additional animal be raised to Sh. 4,000.

(b) CANCELLATION OF LICENCE OR PERMIT

Section 46 (1).—To be amended whereby it will apply also to persons convicted of an offence under the Royal National Parks Ordinance, 1945.

(c) POISON

The manufacture, possession, use or carrying of poison in any form shall be an offence, either by the addition of a new section to this Ordinance, or by a notice in the Gazette to be published under section 31 (1). In addition, whenever any person is charged with being in possession, etc. and proof is given of possession, the onus shall be on the person charged to prove that such poison was lawfully obtained. (c.f. section 32 as amended by section 5 of the Wild Animals Protection (Amendment) Ordinance, 1953.

We advise that this amendment should become law immediately, but that in certain locations, to be specified, where the use of poisoned arrows has long been customary, the law be not enforced for one year.

(4) That the Royal National Parks Ordinance, 1945, be amended whereby the penalties either under the Ordinance or under Regulations are the same as those now recommended in the Wild Animals Protection Ordinance.

The Wild Animals Protection Ordinance has already been amended to give effect to these recommendations, and the opportunity was taken of introducing other amendments considered necessary. In particular, in sub-section (1) of section 45, where the offence relates to more than one rhinoceros or elephant, the penalty has been increased from Sh. 3,000 to Sh. 5,000 and express provision has been made for imprisonment in default for an offence relating to more than one rhinoceros or elephant. The provisions covering the operation of dealers in trophies were also strengthened.

APPENDIX VII.—FINANCIAL IMPLICATIONS OF THE REPORT

1. Early in our Report (paragraph 7) we have drawn attention to the fact that the financial cost of implementing our recommendations for preserving game in Kenya will be considerable. Viewed in the light of the economic value of game to the Colony, this cost cannot be regarded as disproportionately high; indeed, if by the means proposed in our Report a significant advance is achieved in the long term safeguarding of game, as we confidently believe it will be, then the country will have secured lasting advantage at a low cost. The reverse of the picture most certainly is that without a sustained effort now game will disappear, and the longer the effort is put off the greater will be the cost to preserve what is left of a dwindling asset.

2. Additional expenditure arising directly from our recommendations falls under the following heads:

- (i) Additional staff for the Game Department. (Paragraph 7. Draft White Paper, Head 3; paragraphs 13, 27, 30, 34, 35 and 38;
- (ii) Grants to African Local Authorities. (Paragraph 7. Draft White Paper, Head 5; paragraphs 27 and 28.)

3. Under staff for the Game Department, we consider that an addition of five Game Wardens to the present permanent staff, one of whom should be a scientific game research officer, with supporting staff, is the minimum immediate requirement. We envisage that two of the additional Game Wardens would administer two new territorial areas: one based on Embu and comprising South Nyeri, Embu, Meru and Fort Hall districts, and the Yatta areas of the Machakos and Kitui districts; the other Game Wardens would take over a portion of the N.F.D. game jurisdiction, which is far too great for one man to compass. The two other additional Game Wardens would be in charge of anti-poaching and game control teams, and would be available for duty anywhere in the Colony. The proposals for four Game Wardens with a total additional strength of fifty-six game scouts would in fact involve no recurrent expenditure additional to that already covered in the current year's estimates, as the Department is already employing two anti-poaching and one game control team on a temporary basis. The only additional recurrent expenditure would arise from a new post of scientific game research officer. This, we estimate, would amount to:—

1 Officer. Scale "A"	..	..	..	..	..	..	£1,500
Travelling	..	..	..	..	..	..	£1,000
Land Rover	..	..	..	..	..	..	£1,000
Driver: E-6 Scale	..	..	..	..	..	..	£ 105
Tentage, Equipment and Miscellaneous	..	..	..	..	..	..	£ 400
							<u>£4,005</u>

4. We also foresee that the Trustees will have to assume additional commitments which will require the appointment of at least two more field officers. With transport and other costs we estimate that this will mean an increase of at least £10,000 per annum in the subvention granted to the National Parks.

5. Under Grants to African Local Authorities, it is not possible for us to give more than a very rough estimate of the nature of the financial implications which our recommendations might entail. The conception is that in certain areas of the country outside National Parks the game interest is of sufficient importance from the point of view of long-term preservation to justify Government ensuring that the inhabitants of the area derive some tangible economic advantage related to the presence of game in their area. In return for such an assurance the Government could reasonably expect the local inhabitants to agree to certain terms and conditions, which would tend to assist in measure of game preservation. Such terms and conditions might well vary from area to area and could include such matters as agreement not to graze cattle in certain specified localities; not to develop water supplies; and agreement that game should only be destroyed by Game Department Officers on control. Such agreements might be negotiated from time to time for, say, three to five years at a time. Revenue would be derived

in part from entry fees in the case of Game Reserves and in part from controlled area permit fees in other areas. In both cases it would be augmented where necessary by a direct Government grant so that the combined annual sum would be sufficient to enable the Local African Authorities to pay some compensation for damage done by game and to receive a direct contribution to their general revenue as a recompense directly related to the importance attached to the preservation of game in their midst. We have indicated to the Ministry of Forestry Development, Game and Fisheries the areas where this scheme should be introduced, and have estimated that the minimum annual cost to Government would be about £14,800. (See paragraphs 30-32 of this Report.)

6. The total additional recurrent expenditure covered by this Appendix is therefore about £30,000. While this does not cover the full financial liability which will assure the fulfilment of the recommendations we have put forward, it does represent what is, in our opinion the inescapable minimum liability. On the other hand, it is reasonable to assume that the increasing interest in wild life, together with the increase in fees which we have recommended, will lead to an increase in direct revenue, both to the Trustees and to the Game Department.