

0201-73-006



FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS



UNITED NATIONS
ENVIRONMENT PROGRAMME

THE ECOLOGICAL MANAGEMENT OF ARID AND SEMI-ARID RANGELANDS IN AFRICA AND THE NEAR AND MIDDLE EAST (EMASAR)

Formulation of an International Cooperative Programme

Report of an international conference
held in Rome, 3-8 February 1975

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Prepared as part of a cooperative project
of the United Nations Environment Programme
with the Food and Agriculture Organisation
of the United Nations as cooperating agency

FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS
ROME 1975



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Preface

In May 1974 an expert consultation was held in Rome, sponsored jointly by FAO and UNEP, to advise on the formulation of an international programme on the ecological management of arid and semi-arid rangelands in Africa and the Near East.^{1/} The consultation arose from concern for the present state of deterioration of many of the rangelands of these regions, and was designed to prepare for a larger international gathering at which the foundations laid by the consultation could be further discussed and elaborated.

Invitations to this latter meeting were extended to 37 countries of the regions concerned, and to a number of agencies and other governments with interests in rangeland development. The present report is the product of that Conference, and of the delegates and observers listed in Annex 1. The main report presents the outcome of the Conference in three sections: an extended summary of the opening session (which, together with the report of the expert consultation, laid the foundation for the discussions and deliberations); a summary of conclusions, endorsements and recommendations concerning the general issues before the meeting; and the conclusions of the Conference regarding the organization and structure of an international rangelands programme. This latter aspect featured as the main item of discussion.

Since the subject under discussion was the ecological management of arid and semi-arid rangelands, the abbreviation EMASAR was adopted as the descriptor of the Conference and of the programme which emerged. The Conference emphasised, nonetheless, that the development of arid and semi-arid rangelands often necessitates consideration of associated lands, e.g. rangelands of higher precipitation to which the arid lands are tied within migratory pastoral systems. Hence, while confirming that the focus of the EMASAR programme is the arid lands, the Conference found it appropriate to extend these confines to include "associated lands". In order to be explicit, the Conference also preferred to extend the description of the area under consideration to include specific mention of the Middle East (Afghanistan, Iran, Pakistan). In time, it is possible that the EMASAR programme could be further extended to include the drier parts of the Far East and Latin America.

On the final day of the meeting, the Conference scrutinised the draft report that had been prepared from preceding discussions, and endorsed the text hereunder as the authorised version of the Conference report.

The fact that several governments already had specific activities in mind for consideration under the EMASAR Programme, augurs well for the future of the Programme.

A selection of the background papers prepared for the present Conference, and for the consultation which met in May 1974, is being incorporated in a separate volume. Copies of this, and of the consultation report, are obtainable from the Conference Secretary, Mr. S.A. Risopoulos, FAO Rome.

^{1/} Lands characterised by precipitation too low or erratic to support commercial forestry or permanent cultivation, with mean annual precipitation usually less than 600 mm (though varying with area and climatic regime from 400 mm or less to 800 mm). The approximate extent of the areas that lie within these limits of precipitation is tabulated in Annex 2.

OPENING SESSION

1. The Conference was opened by Mr. R.I. Jackson, Deputy Director-General of the Food and Agriculture Organization of the United Nations. His opening speech is summarised and presented here, as a prelude to the Conference and its charge.

2. Mr. Jackson noted that 94 percent of the land area in North Africa and the Near and Middle East is rangeland with an annual precipitation of 400 mm or less, and that 55 percent of West, East and Southern Africa is rangeland with less than 600 mm rainfall. These lands support nearly 500 million head of livestock which produce about 2.5 million tons of meat valued at 2,500 million dollars annually. When production of wool, milk and hides is added to meat, it is clear that rangelands contribute substantially to the national economies and it is obvious that their conservation and better management are essential. Nevertheless, in spite of the importance of these vast rangelands, they have to date received relatively little attention. As one consequence of this, most developing countries still do not have a corps of technically competent range managers. Knowledge about grazing resources is limited, research in the field is deficient, and investment in rangeland development is low. The general lack of range organizations handicaps programme development and execution. Under these circumstances serious range deterioration is widespread. Furthermore, it is a fact, and a regrettable one, that this situation continues even though bilateral and multilateral assistance has, over the past two decades, helped many countries in efforts to improve their rangelands.

3. Many activities carried out by scientists and others have helped to set the stage for action. A few were mentioned. The International Biological Programme focussed attention on rangelands as ecological systems and on the need to understand the function of components within these systems in order to manage them in a rational manner. The Man and Biosphere Programme of UNESCO, with which FAO is closely associated, emphasises the importance of relating the rangeland ecosystem to the human context. More recently, the International Livestock Centre for Africa began work related to multi-disciplinary research in range and livestock management. And finally, FAO has long been engaged in assisting developing countries in range management through a large number of field projects.

4. Last July the Committee on Agriculture of the FAO Council - COAG - considered various aspects of a programme for improving productivity of low rainfall areas and it recommended that FAO give proper emphasis to clearly identified problems in these areas. The Ecological Management of Arid and Semi-Arid Rangelands Programme, EMASAR, is one important element within this larger programme. EMASAR is also linked with forestry, sand dune stabilisation, production of fuel wood in range areas, animal production, wildlife, and products such as gum arabic.

5. During the preparatory phase of the EMASAR Programme, FAO has enjoyed close collaboration with, and received considerable financial assistance from, the United Nations Environment Programme. The first major activity was a consultation of experts, each of whom, in his own discipline, had experience in one or more countries of Africa or the Near East. They provided an assessment of the problems and proposed guidelines for an action programme. Following the circulation of their report, consultants were despatched to most of the countries involved to clarify certain matters and to confirm government interest in the programme. Sub-regional reviews were also carried out. Now that this preparatory phase has been finished, it is for this conference to consider what form the future programme should take.

6. It was hoped that the background documents which have been prepared, and the exchange of views which will take place at the Conference, will make it possible to reach a consensus on an EMASAR Programme which includes concrete recommendations on the next steps to be taken in implementing the programme. Mr. Jackson expressed desire for the delegates to reach agreement on high priority projects which might be formulated for consideration by donor agencies. While meetings on policies and programmes are essential first steps, it is only through the implementation of projects that the countries will benefit from the programme.

7. Since the major foreseeable use of rangeland is the grazing of domestic livestock and wildlife, and since the World Food Conference recently highlighted the urgent need to make the best use of all land fit for production, Mr. Jackson heartily endorsed the objectives of the EMASAR Programme and wished the Conference the very best of success.

8. The Conference was undertaken with the above-mentioned needs and objectives in mind.

9. Mr. Jackson then called for the election of a Conference Chairman. Mr. Abdul Malek Khattak, Inspector General of Forests, Joint Secretary to the Government of Pakistan, Ministry of Food and Agriculture, Pakistan, was elected Chairman of the Conference. Mr. Khattak expressed his thanks and urged the delegates to participate in Conference activities with diligence and enthusiasm, so as to provide a report that would create an international awareness of the importance and needs of the Arid and Semi-Arid Rangelands of Africa and the Near and Middle East, which have too long been neglected. He also emphasised the need for immediate and widespread international action in respect of these lands and hoped that the Conference would provide a framework for such action. He further added that the region is faced with a struggle against hunger and want and must harness all the natural renewable resources hitherto neglected. Wild lands in the region form our biggest underdeveloped resource and must be taken for development to sustain the teeming millions.

10. Referring to Pakistan, Mr. Khattak said that the country had a land mass of 198.6 million acres with about 60 percent used as grazing grounds for its 73 million livestock population. To develop this asset, a Range and Pasture Improvement Scheme was initiated in 1954, followed by a number of other such demonstration projects over different ecological zones, which served as a training ground for the technicians engaged in range management. To boost the development of this sector, the present Government constituted a Range Management Committee, which submitted a report to the Government. It was in this report that the Prime Minister of the country directed:

"Please do start. I want you to give your maximum attention to this problem and the menace of water-logging and salinity. If we can make the desert bloom and push back the salts we would have achieved a magnificent triumph. I will give you every possible support - political, moral and financial - to achieve this objective."

To implement this directive, feasibility surveys of all the range areas were immediately carried out and comprehensive development schemes prepared which are under implementation over a major part of the country's rangelands.

11. Mr. Hashim Abdel Mutaleb, Deputy Director of the Range and Pasture Department, Ministry of Agriculture and Natural Resources, Sudan, was elected First Vice-Chairman and Dr. Mamadou Souleymane Diallo, Directeur de l'Elevage et des Industries Animales, Senegal, was elected Second Vice-Chairman. Mr. S.A. Risopoulos, Range and Pasture Improvement Specialist, FAO Rome, was appointed Secretary.

12. The Chairman called upon Dr. I. Konaté, Conseiller Régional, Comité Inter-Etats pour la Lutte contre la Sécheresse au Sahel (CILSS) to make a brief statement relative to the importance of the Conference. Dr. Konaté pointed out that considerable famine, death and poverty as well as approximately 50 percent livestock death loss has occurred in the Sahelian zone or "West Africa's Meat Basket" during the recent drought. This was not due to drought alone. Proper range management prior to and during the drought could have reduced or perhaps even prevented this catastrophe. He commended those who have studied and recommended solutions to the problem. He appealed to the participating organisations and nations whether they be developed or developing, to let these recommended actions become a reality rather than mere words on paper. Although there have been lately several meetings on the general subject of arid and semi-arid lands, Dr. Konaté felt that the present Conference, as delineated in the consultation report and working papers, had a more practical role to play. He stressed that now is the time for action and felt that EMASAR would serve as a vehicle for such action.

13. Dr. Konaté expressed the wish that the proposed International EMASAR Programme would be a useful contribution to the proposed UN General Conference on desertisation, scheduled for 1977.

14. In the ensuing business of the Conference, two committees were established. Dr. Mamadou Souleymane Diallo was appointed Chairman of the Drafting Committee with the following membership: Mohammed Muhieeldin Al-Khateeb, Iraq; Dr. Zere Gebrehiwet, Ethiopia; Dr. Engueleguele, Cameroon; Dillard Gates, United States of America and Dario Sanvincenti, UNEP Delegate. Mr. Hashim Abdel Mutaleb was appointed Chairman of the Committee on the Organization and Structure of the EMESAR Programme, with membership as follows: Mr. Goodarz Shaidahee, Iran; Mr. L.J. Ayuko, Kenya, Mr. Khalid-Said Mahrous, Saudi Arabia; Mr. Lassana Coulibaly, Mali; Dr. Mohamed Skouri, Tunisia; Mr. A. Blair-Rains, UK; Mr. P.H. Lacoste, France.

15. The following agenda was adopted by the Conference:

1. Report of the Expert Consultation
 - a) Review of expert consultation report and follow-up
 - b) Outline of rangeland situation in sub-regions (East Africa, West Africa, North Africa, Near East, Middle East)
2. Outline of an International Rangelands Programme
3. National Range Development Programmes
4. Regional Range Supporting Services
5. International Support
6. Adoption of Report

16. Under item 1 of the Agenda, Mr. D.J. Pratt (Rapporteur of the Expert Consultation) introduced the consultation's report by highlighting some of its contents and deficiencies. Though the expert group was small and could not fully reflect all of the subregional and national differences of Africa and the Near East, the group was confident in its main conclusions, namely:

- (1) that rangelands are in need of rehabilitation and management
- (2) that accelerated deterioration evident in recent years cannot be attributed solely, or even largely, to drought; that in many areas, human and livestock populations have for some time exceeded the carrying capacity of the land
- (3) that the majority of development efforts to date have not been very successful
- (4) that more resources - technical and financial - need to be mobilised for range development, incorporating improved standards in respect of
 - (a) predevelopment survey and planning
 - (b) organizational and management control on the part of governments, and
 - (c) participation by the pastoral peoples concerned
- (5) that, almost without exception, governments need to strengthen their services which are responsible for range development and management
- (6) that the solution does not lie in the application of single measures but in mobilising all required inputs in a logical sequence, jointly supported by the governments of the region and by international and other agencies.

17. In other words, the group concluded that there is a need for an international rangelands programme.

18. The considerations leading to these conclusions are organised, within the May report, in three introductory chapters. The report also elaborates possible programme components in some detail, covering educational activities, range surveys and related activities, development-oriented research, advisory services and project activities. It was stressed that "project activities" refers specifically to investment projects, i.e. range development projects. It is important that an international rangelands programme should not limit itself to technical assistance; it must also generate new investment and assist in directing the investment funds already available where they can do most good.

19. The report was much less specific concerning how an international rangelands programme might be organised, i.e. its structure and controlling mechanism. This, therefore, will be a major area for consideration by the Conference. The group considered that the programme can best achieve its desired impact by embracing the full range of interested parties, including both funding agencies and the countries in need. The speaker's own view was that the programme needs to be focussed on a central unit or secretariat which can act as a clearing house for project formulation and serve as an intermediary between countries in need and potential donors. This and other organizational aspects will be particular questions for the Conference to consider.

20. Mr. S.A. Risopoulos then explained what had happened since the Expert Consultation as regards the preparation of the Conference. The results were summarised in the working papers before the Conference. These include reviews of the rangeland situation in each of the sub-regions concerned. Their purpose was not to make an exhaustive review of the activities taking place in each country; however, they serve to highlight the fact that common problems and needs exist in the different sub-regions, a fact which would give additional justification to an international effort in the field of range management and development.

21. The outcome of the discussions which ensued, under the first and subsequent items of the Agenda, is summarised in the sections following.

SUMMARY OF DISCUSSIONS: CONCLUSIONS, ENDORSEMENTS AND GENERAL RECOMMENDATIONS

There was considerable discussion by the Conference relative to all Agenda items.

Conclusions

22. The Conference concluded:

- (1) The rangeland problem is serious and acute, requiring immediate action.
- (2) Arid and semi-arid rangelands and rangelands associated with them are important and deserve higher priority and emphasis in national, regional and international development and management programmes.
- (3) Most nations have the technicians to conceive range management and development programmes, but the number of national technicians is inadequate for implementation, thus emphasising the need for immediate action relative to training and education programmes and centres.
- (4) Considerable financial assistance will be needed for the range sector and, if more funds are to be made available for range development, more attention will need to be given to defining comprehensive strategies, developing appropriate structures and requesting assistance for project formulation and implementation.
- (5) More attention needs to be given to establishing a basis for development, involving suitably trained manpower, data on land and human resources, improved technology and suitable organizational framework.
- (6) Active participation by the pastoralists concerned will be essential to the implementation of a successful range development and management programme. This will require knowledge of socio-economic factors involved, defined appropriate management units, and motivation and training of the pastoralists.
- (7) Special attention needs to be given to overcoming the effects of drought and seasonal forage availability, over-exploitation, feed shortage, etc.
- (8) The focus of attention should be at the national level, but there is an international gap that could be filled by regional programmes, making regional and sub-regional activities essential.
- (9) A multi-disciplinary approach is required involving such disciplines as range management, animal health, animal husbandry and improvement, sociology, economics, forestry, soils, wildlife, watershed management, marketing and water development. Also, the multi-disciplinary approach requires coordination at national, regional and international levels.
- (10) An international rangelands programme such as EMASAR is required and is in demand.

Endorsements.

23. The Conference noted the report of the Expert Consultation on the Ecological Management of Arid and Semi-Arid Rangelands in Africa and the Near East, and considered that the document provided guidelines for the EMASAR programme.

24. It stressed, however, that considerable variations exist among the needs of member countries and that these should be fully taken into account in the development of the EMASAR Programme.

25. The Conference endorsed the proposal to form an EMASAR International Programme for Africa and the Near and Middle East with the objectives of embracing the full range of interested parties including both funding organisations and nations and the countries in need. The Conference considered that such a Programme would give range management the

identity and emphasis that is required to achieve immediate and widescale progress in Africa and the Near and Middle East. It felt that progress in the past was not commensurate to the urgency of the problem because range management has not been given proper status in the various programmes and projects at the national, regional and international levels.

26. The Conference also noted the technical and financial assistance that has been extended to the African and Near and Middle Eastern countries in the field of range management and hoped such assistance will be continued and expanded.

Recommendations

27. The Conference showed particular concern about the rangeland situation in Africa and the Near and Middle East and made the following recommendations:

- (1) That emphasis should be placed upon national development including the development of national expertise to formulate and implement projects and programmes.
- (2) That FAO in collaboration with other interested parties take steps to form an international rangelands programme (EMASAR) as soon as possible. An outline for the organization of the programme, with terms of reference and recommendations relative to the functions, structures, activities and cooperative links are presented as a separate section of this Report.
- (3) That sub-regional, regional and international projects be developed to fill existing gaps and bring about better coordination.
- (4) That emphasis be placed upon the immediate, practical application of already existing knowledge. The programme should include arrangements for the transfer of such knowledge. Research should be encouraged and its results made available to the countries concerned.
- (5) That education and training at all levels on national and regional bases be given top priority in EMASAR activities.
- (6) That EMASAR give emphasis to assisting the nations in formulating projects and programmes and in securing funds and implementing them.
- (7) That the donor organizations and nations cooperate with the EMASAR International Programme and its objectives and assist it in every possible way.
- (8) That EMASAR assist governments upon request in arranging appropriate surveys essential for the elaboration of development plans and schemes and, subject to the consent of the country concerned, assist in collecting and disseminating required data and information.
- (9) That all interested organizations, institutions, foundations and nations that are currently assisting the African and Near and Middle Eastern countries continue and expand their endeavours in the field of range management.
- (10) That EMASAR should consider all existing related activities and institutions in their endeavours and should cooperate with and/or include them when possible and avoid unnecessary duplication.

ORGANIZATION AND STRUCTURE
OF THE INTERNATIONAL COOPERATIVE PROGRAMME (EMASAR)

28. The Conference emphasised the importance and urgency of taking action for arresting and preventing further degradation of rangelands and the development and management of these resources on a sound ecological basis, in order to improve the living conditions of the populations involved.

29. The Conference also recognised that the present critical situation of arid and semi-arid rangelands was not due to occasional circumstances but actually resulted from a long process of degradation.

30. With regard to organizational aspects, the main causes of this degradation process are, in particular:

- (i) local socio-economic problems;
- (ii) shortage of staff and funds at the national level;
- (iii) inadequacy of international assistance, insufficient coordination, lack of consideration for actual national priorities, insufficient recognition of the importance of the problem, and a piecemeal approach.

Scope and function of the Programme

31. The EMASAR Programme will essentially be based on national action programmes, the role of EMASAR being to promote and assist these national programmes and related regional activities and facilitate concerted action at sub-regional, regional and global levels. The programme will be of a cooperative nature, drawing from all sources of competence and institutions willing to join in the programme through ad hoc cooperative (bilateral and multilateral) arrangements at sub-regional, regional or global levels. The role of the programme will essentially be one of stimulation and coordination of the above ad hoc cooperation, in full concertation with interested parties and with due respect to the sovereignty of member states. Finally, the EMASAR Programme will be implemented through successive consultations at regional, sub-regional and national level.

Objectives

32. The Programme shall seek to further the ecological management of arid and semi-arid and associated rangelands in Africa and the Near East through:

- predevelopment surveys, range resource monitoring, and related research^{1/}
- education and training programmes
- advisory services, and
- development programmes

33. Specific objectives shall be to:

- i. Promote a concerted effort to assist concerned countries in range improvement;
- ii. Facilitate collaboration and cooperation among countries;
- iii. Assist countries upon request in the identification and formulation of

^{1/} It is understood that basic ecological research on rangeland ecosystems is being promoted and coordinated through the Man and Biosphere Programme of UNESCO, with which FAO is closely associated.

programmes and projects, training and other activities designed to improve their rangelands;

- iv. Serve as a liaison mechanism between countries requesting assistance through the Programme and national and international agencies willing to provide assistance, in the framework of this Programme.

34. In carrying out these functions, the programme shall:

- (a) Arrange the necessary consultations to assure that the international activities proposed correspond to a priority need of, and are well adapted to, the countries concerned.
- (b) Work closely with related organisations and institutions, particularly in the regions concerned, to avoid duplication and facilitate the objectives of the programme.
- (c) Further involvement of institutions and individuals who can make an effective contribution to the programme.
- (d) Draw upon existing knowledge and machinery for helping carry out its project identification, formulation and implementation.
- (e) Make the fullest possible use of existing national structures and furthering the cooperative efforts among countries.
- (f) Maintain close liaison with other areas of activities relevant to the programme.

Organization

35. The overall direction and guidance of the programme will be ensured by convening on an ad hoc basis EMASAR Conferences similar to the present one with delegates from countries concerned and representatives of interested organizations.

36. The recommendations of these Conferences will be placed before the governing bodies of the participating institutions (intergovernmental and non-governmental) for review and endorsement as required by the usual procedures of these bodies.

37. At national level governments will be invited to establish and/or strengthen an adequate range management organization and a range development committee at appropriate level.

38. The role of the range development committee will be to advise on and arrange implementation of government policy and programmes for range management in a wider context of integrated development of these areas.

39. At regional and sub-regional level the EMASAR Programme will facilitate the cooperation of existing regional institutions which may support the range development programmes of the region through cooperative applied and necessary basic research activities, training, technical and financial assistance. Wherever requested by the countries of the region, the EMASAR Programme will help in strengthening existing regional institutions or where necessary establish new facilities to support regional cooperation in the field of rangelands. These regional EMASAR activities will be mostly achieved by arranging ad hoc consultations between interested regional and national organizations. Upon request by these organizations, the regional and sub-regional EMASAR activities will be serviced by small regional teams of range management experts with provision for short term consultants in related fields of activities.

40. The role of the regional and sub-regional EMASAR teams will be, on request by governments concerned:

- i. to assist in formulating their policies and programmes;
- ii. to assist in strengthening their range management organizations, in the formulation of projects of technical assistance and investment and, in finding sources of international, technical and financial support for these programmes and projects;
- iii. to facilitate the cooperation of regional and national institutions concerned with range management and development;
- iv. to assist in the development of training programmes at national and regional levels;
- v. to assist in documentation and information exchange;
- vi. to arrange for seminars, meetings, workshops, etc., between specialists of the region on specific problems.

These EMASAR Conferences will be serviced by a central Secretariat.

Central Secretariat

41. For the immediate future, the Secretariat should, in consultation with the pertinent national and international bodies, undertake the following tasks:

- i. Organization of consultation with governments at the regional and sub-regional level in order to develop activities appropriate to participating countries, and to facilitate coordination of their activities;
- ii. The formulation of a phased training programme which would be clearly geared to the immediate needs of the countries concerned;
- iii. A systematic identification of needs which countries have for rangeland resource evaluation and the formulation of a programme or projects appropriate to the defined needs;
- iv. Collection and synthesis of knowledge relevant to the programme in those countries where this has not already been done, and making it available to others in the regions.
- v. Study of the possibility of establishing regional or sub-regional centres, or strengthening existing centres or institutions, taking into account ecological, and sociological factors and the facilities which prospective host governments could provide.
- vi. Seek compilation of a comprehensive directory of range management institutions;
- vii. Seek sources of assistance according to the requests and needs of the countries concerned;
- viii. Establish and maintain cooperative links between the EMASAR programme and programmes of the UN and non-UN organizations.

42. On the basis of the various consultations with recipient and donor countries the EMASAR Secretariat should put forward a more definitive structure of the Secretariat and its location for consideration by the FAO Governing Bodies, and their approval.

43. The Conference recommends that,

subject to approval by the Governing Bodies, FAO immediately establish a Secretariat for the EMASAR Programme. This Secretariat should be established at a level directly responsible to the ADG Agriculture Department and

provided with appropriate means at FAO HQ until permanent arrangements are made. Regional or sub-regional teams should be established concurrently.

Implementation

44. The Chairman will convene ad hoc meetings (probably every six months) of the Chairman and Vice-Chairmen of the Conference with the sub-regional representatives nominated by the Conference^{1/} and in close association with the central Secretariat to ensure and guide the implementation of the programme, including the convening of the succeeding Conferences.

45. The EMASAR Conference requests FAO, in cooperation with UNEP (i) to take steps for the permanent location of EMASAR Secretariat and assist to further elaborate the above programme outline, in the light of the comments made by the participants, (ii) to assist in convening the ad hoc consultations required for this purpose with interested governments and institutions, (iii) to submit these proposals and recommendations to their governing bodies for approval; and (iv) to take steps for a close coordination with other UN and non-UN agencies concerned.

46. The Conference recommends that the long-term organizational aspects include:

- i. A technical advisory mechanism comprised of experts of participating governments which would carry out with the support of the central secretariat such functions as
 - establishing and maintaining guiding principles and objectives for the operation of the EMASAR Programme.
 - keep under review progress in range development.
 - consider national and regional needs in range development, and means for meeting needs.
 - assist in finding ways and means for securing funds and technical manpower for helping countries with their range development programmes.
 - approve or recommend programmes and budgets.
- ii. A mechanism whereby the agency entrusted with this task, or FAO, could take the initiative of contacting donor countries and funding agencies for the financing of the programme.

47. In order that the development of the EMASAR Programme may proceed apace, the Conference requests FAO to arrange for the implementation of these recommendations on a high priority basis.

48. The Conference further acknowledged the invaluable contribution which UNEP has made to the development of the EMASAR Programme. It further considered that the EMASAR Programme is a most vital and concrete element within the overall UNEP programme on desertification. Therefore, it requests UNEP

to continue its valuable assistance to help assure that the next critical steps of the proposed programme may be carried through with a minimum of delay with full cooperation of other UN and non-UN organizations concerned.

^{1/} One each for: East Africa, North Africa, Southern Africa, West Africa, Middle East, Near East (see Annex 2).

49. The Conference appreciated the need for having range development centres in each of the six sub-regions cited above.^{1/} The Conference noted with appreciation the offer of the Iranian delegation to establish a regional range development centre in Iran. It suggested that the Secretariat should consider this proposal in detail within the EMASAR Programme. The Conference appreciated the need for similar centres in the Sahel, Somalia, and, on the proposal of their representatives, other sub-regions.

50. The Conference appreciates the desire of governments and of organizations such as the Arab Organization for Agricultural Development and the Economic Commission for Africa to participate in the work of the EMASAR Programme. The Conference also noted the existence of the Arab Center for the Studies of Arid Zones and Dry Lands and its desire to participate in the EMASAR Programme.

^{1/} The UK delegation, however, reserved the position of its Government on the establishment of new development centres.

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ANNEX 2

Land Classification in Africa and the Near and Middle East
according to Mean Annual Precipitation

	Total Land Surface '000 km ²	(A)		(B)		(A + B) % Total
		Land with <100 mm '000 km ²	% Total	Land with 100-400 mm '000 km ²	% Total	
North Africa ^{1/}	5 751	4 864	85	563	11	96
Near East ^{2/}	3 705	3 033	79	589	16	95
Middle East ^{3/}	3 100	548	18	2 132	69	87
Total	12 556	8 445	67	3 374	27	94

	Total Land Surface '000 km ²	(A)		(B)		(A + B) % Total
		Land with <200 mm '000 km ²	% Total	Land with 200-600 mm '000 km ²	% Total	
West Africa ^{4/}	6 691	3 014	45	1 391	21	66
East Africa ^{5/}	6 130	1 537	25	1 605	26	51
South Africa ^{6/}	4 088	360	9	1 317	32	41
Total	16 909	4 911	29	4 313	26	55
Grand Total	29 465	13 356	45	7 687	26	71

^{1/} North Africa: Algeria, Egypt, Libya, Morocco, Tunisia

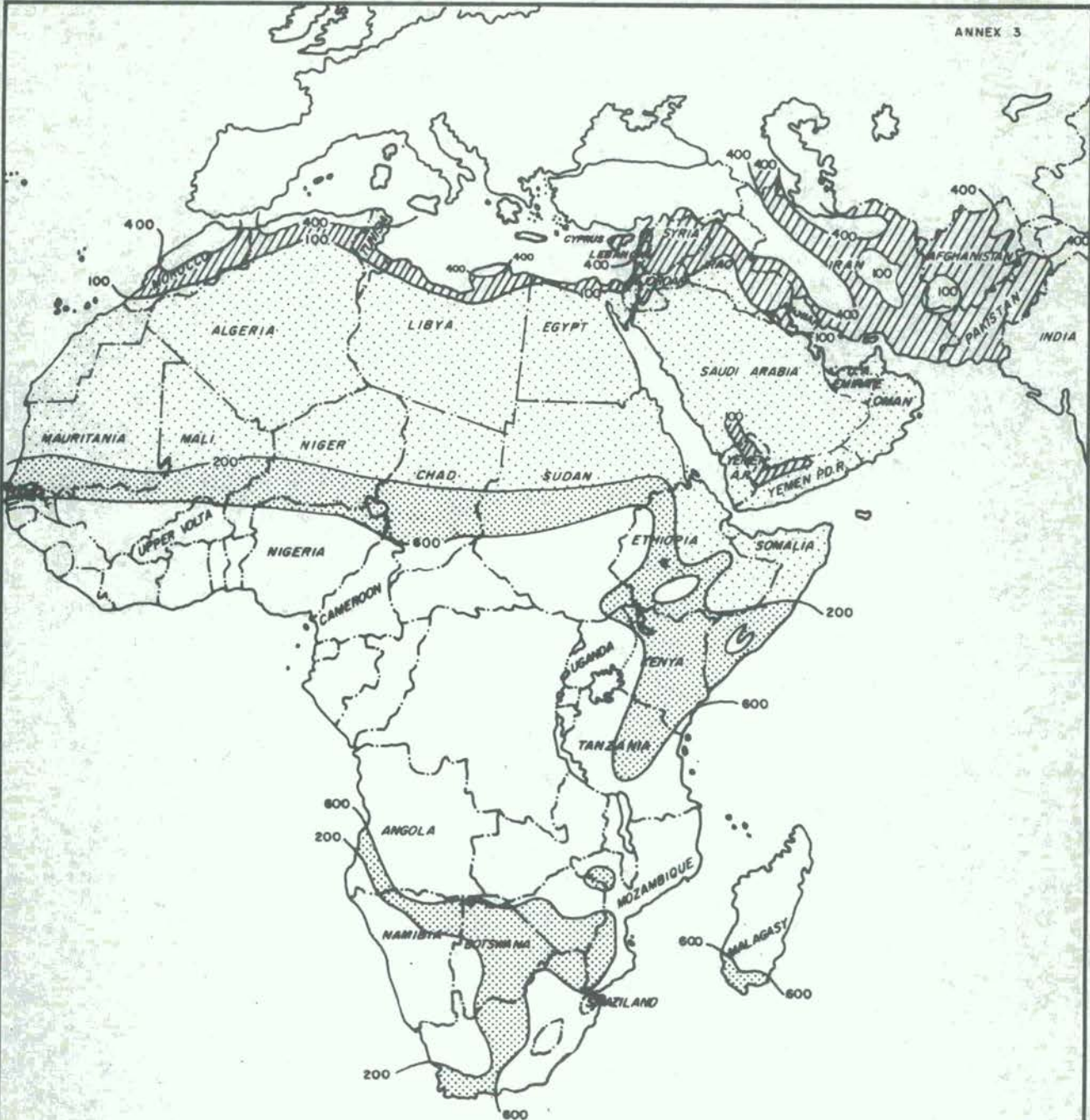
^{2/} Near East: Bahrain, Cyprus, Iraq, Jordan, Lebanon, Kuwait, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen Arab Republic, Yemen P.D.R.

^{3/} Middle East: Afghanistan, Iran, Pakistan

^{4/} West Africa: Cameroon, Chad, Mali, Mauritania, Niger, Nigeria, Senegal, Upper Volta

^{5/} East Africa: Ethiopia, Kenya, Somalia, Sudan, Tanzania, Uganda

^{6/} Southern Africa: Botswana, Malagasy, Swaziland, and including Angola, Mozambique, Namibia



Countries concerned by the EMASAR International Programme
Pays concernés par le programme international EMASAR

