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KIBWEZI ENVIRONMENTAL MANAGEMENT PROJECT

APPRAISAL REPORT

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## Contents

1. INTRODUCTION
2. APPRAISAL BACKGROUND
3. PROJECT OBJECTIVES AND STRATEGY
4. CARE AND ACTIONAID
5. COMMUNITY APPROACH
6. GOVERNMENT INSTITUTIONS
7. EXTENSION AND TECHNOLOGY
8. SUSTAINABILITY
9. REPLICABILITY
10. CONCLUSIONS

## Annexes

- A. Appraisal Terms of Reference
- B. Itinerary
- C. Persons met
- D. Draft Project Executive Summary
- E. Draft Terms of Reference for Preparatory Study

## ABBREVIATIONS

AMREF	African Medical Relief Foundation
ASAL	Arid and semi-arid lands
BDDEA	British Development Division in East Africa
FD	Forestry Department
GOK	Government of Kenya
ICRAF	International Council for Research in Agro-Forestry
ITDG	Intermediate Technology Development Group
KARI	Kenya Agricultural Research Institute
KEMP	Kibwezi Environmental Management Project
KEFRI	Kenya Forestry Research Institute
MOA	Ministry of Agriculture
MCSS	Ministry of Culture and Social Services
MENR	Ministry of Environment and Natural Resources
NGO	Non-Governmental Organisation
ODA	Overseas Development Administration
PRA	Participatory Rural Appraisal

US\$ 1 = Ksh. 30

1.

INTRODUCTION

1.1 The purpose of this report is to present an appraisal of the Kibwezi Environmental Management Project (KEMP). The appraisal was carried out between 15 - 28 June 1992 by a joint CARE/ODA team consisting of M.E.S. Flint, D. Hughes, R.M. Moorehead, and G.C.M. Mutiso. The team was considerably assisted in its task by the excellent logistic and administrative support provided by CARE Kenya. The itinerary and list of persons met are included in annexes B and C.

1.2 The Terms of Reference for the appraisal are contained at annex A. This was supplemented by briefings from CARE Kenya and BDDEA at the beginning of the appraisal. In addition to a general appraisal of the project, the team was asked to consider six issues in particular :

- i. the definition of the community target group;
- ii. the relationship with government institutions and extension services;
- iii. the appropriateness and potential impact of the extension messages;
- iv. the viability of the forestry activities;
- v. sustainability and replicability;
- vi. the economic justification for the project.

1.3 In the event the team was unable to complete the appraisal or to recommend the project as designed. The main reason for this is the existence of an ActionAid agricultural programme in one of the two locations originally proposed for KEMP (see section 3). Given the significant degree of overlap between the ActionAid and CARE programmes the team concluded that it was no longer possible to implement KEMP as designed. This was particularly unfortunate in view of the preliminary conclusions of the appraisal team that KEMP would have been an effective and worthwhile project.

1.4 The immediate implication of this outcome is that the team is not in a position to draft a final project document. However, it was considered by both CARE Kenya and BDDEA that a report containing a review of the main appraisal issues and a redrafting of the Project Executive Summary would be useful outputs. It was also recognised that there may still be potential for a smaller CARE project along these lines. An essential first step in ascertaining this should be a study which reviews the experience of community level development in ASAL areas, refines the particular contribution of a CARE approach, and identifies potential project areas. Draft terms of reference for such a study are contained at Annex E.



**APPRAISAL BACKGROUND**

2.1 In 1989 CARE made a programming decision to investigate the potential for an agro-forestry project in the ASAL areas of Eastern Kenya. Following visits to Machakos, Kitui and Taita Taveta Districts in May 1989, a concept paper proposing activities in Kibwezi Division was developed in August 1989. Kibwezi Division was selected because of the comparative lack of development assistance and the long standing associations between CARE and the communities in the Division. The final goal suggested in the concept paper was for the participating communities to understand and utilize appropriate agroforestry technologies which would promote the rehabilitation of degraded lands and stabilize and sustain agricultural and pastoral production systems.

2.2 It was recognised by CARE Kenya that, although outlining broad themes for the project, the concept paper did not constitute a fully prepared project proposal. Funds were therefore obtained from the Dulverton Trust to prepare a final proposal. The process of preparation included the following activities :

- (i) A workshop with technicians from the GOK Divisional departments of Agriculture, Livestock production, Culture and Social Services, Education, Water Development, Forestry Research and Forestry Extension. This workshop identified the major constraints in Kibwezi division, and identified agricultural and environmental initiatives as having potential for reducing poverty. It was agreed the project should focus in Utithi and Kinyambu sublocations in Ngwata Location and Kathekani and Muthingiri sub-locations in Mtito Andei Location. These locations had received the largest number of recent migrants, and were therefore considered to be populated by households who were more amenable to change than residents in the old established locations of Makindu and Kikumbulyu;
- (ii) Discussions with District, Provincial and National level GOK staff, and with representatives from other organisations including KEFRI, KARI, ICRAF, AMREF and Action Aid;
- (c) A baseline survey in the four selected locations (October 1990);
- (d) Focus group discussions (October 1990).

2.3 CARE Kenya completed the Kibwezi Environmental Management Project (KEMP) proposal at the end of 1990. The proposal was reviewed in house and then submitted to CARE New York and CARE-Canada for review. The major concern of CARE New York was that the intermediate goals covered technical project activities and did not include any institutional or community strengthening

goals. CARE Kenya agreed, but felt that positive participation and adoption was more likely to be achieved through community self-help groups rather than through the strengthening of formal institutions.

2.4 The proposal was further revised on the basis of comments from CARE USA, CARE Canada, CARE Britain and the Dutch Embassy in Nairobi, and circulated to several donors including ODA in May 1991. The final goal of the revised project was to increase the ability of 32 communities in the project target areas to sustain their environmental and socio-economic well being by 1997. The total cost of the project was estimated as US\$ 2 million over a five year period.

2.5 In December 1991, CARE and ODA developed terms of reference for an appraisal mission which would examine the issues raised by ODA (para.1.2). It was agreed that the appraisal team should consist of an agricultural economist, sociologist, institutions expert and agronomist.

**Project Objectives**

3.1 The process of project preparation outlined above identified three problem areas in Kibwezi Division : low farm production; low cash incomes; and deforestation. KEMP aimed to address these through an integrated programme of agricultural extension, tree planting, support for income generation, and environmental education. The combination of these would, it was argued, improve environmental knowledge and awareness, increase farm and non-farm incomes, and reduce the extent of environmentally destructive practices such as charcoal making.

3.2 The final goal of KEMP was stated as follows : "to increase the ability of communities in the project target area to sustain their environmental and socio-economic well being by 1997". In seeking to improve this and the immediate objectives, the main issue discussed by the mission concerned the relationship between environmental and welfare objectives. The apparent lack of congruity between the focus of the project as implied by the title (environmental management) and weighting of project activities as proposed (improved livelihoods) was also discussed. While both goals are mutually supportive in this case, as drafted it was apparent that the major focus of the project was on promoting improved and sustainable livelihoods. Improved management of the environment is both a means to this end, and an end result, but it was not the primary focus of KEMP.

3.3 The mission was in agreement with the focus on sustainable livelihoods as proposed. However, a number of changes in the objectives of the project are recommended. The most important of these are to include the improved management of shared natural resources, and the development of an adaptable approach for similar ASAL areas, as additional objectives. The proposed revised objectives are given below. It is also suggested that "resource management" might be a more appropriate than "environmental management" as the title for a project of this nature.

Wider Objective

1. to improve the welfare of people, particularly the poor and women, through the development of sustainable livelihoods and associated natural resource management systems.

Immediate Objectives

1. to diversify and increase sustainable crop and livestock production and income;
2. to develop sustainable integrated management systems for shared natural resources;



3. to strengthen the institutional capacity and skills within local communities;
4. to develop an adaptable community level approach for similar ASAL areas.

### **Project Strategy**

3.4 The strategy proposed for KEMP was clearly laid out in the project document. It rested on three key assumptions :

- (i) that clear linkages exist between current economic activities and deforestation, and between deforestation and the sustainability of livelihoods;
- (ii) that alternative and improved technologies and economic opportunities exist;
- (iii) that the main constraint to beneficial change was the lack of knowledge among local people.

It followed from these assumptions that the major focus of the project should be on extension.

3.5 It is clear that there is a direct relationship between the expansion of agriculture, the intensification of range management, and the clearance of trees and scrub on private landholdings. However, it is less clear that the process of deforestation is either undesirable given the necessity for more productive land use systems, or significantly alterable given the strength of the trends involved. Rather than aiming to prevent or slow an environmental change which is largely inevitable, the objective should be to ensure that the transition is effected with as little environmental damage as possible, and results in the most sustainable and productive farming system. Tree management and tree planting may well have a significant role to play in this transition.

3.6 The linkage between improved livelihoods and reduced charcoal making is also uncertain, but is unlikely to be straightforward. Where charcoal is made from trees cleared in the process of agricultural clearance, the link between charcoal making and improved livelihoods is positive. It is preferable that wood be converted into charcoal than wasted and burned on site. To the extent that some of the charcoal is still made from trees within game or forest reserves, this is clearly undesirable. However, even in this case, the strength of the positive relationship between charcoal making and increased non-charcoal incomes is uncertain. A positive relationship probably exists, but this should not be a major justification for the project.

3.7 The second assumption made was that alternative technologies and economic opportunities exist which will lead to improved and sustainable livelihoods. In the main this assumption

was borne out by the appraisal. While the appropriateness of a few of the proposed technologies is questionable, and the impact of most will be modest and/or uncertain, in general the proposals are sound as a menu of options (see section 7). This promising analysis was supported by the important finding that many of the improved technologies and skills already exist within communities, and that process of technological change is active and well advanced. This has important implications for the project strategy.

3.8 The third assumption was that the main constraint to beneficial change was the lack of knowledge among local people. The finding that knowledge about improved technologies was present and practised in the community as a whole does not of itself prove that knowledge is not a constraint. If knowledge is concentrated and slow to diffuse it may still be a constraint for most people. However, it is likely that knowledge is not the only constraint, nor necessarily the most important. The original proposal placed undue emphasis on extension and education as the key to changing environmental and economic behaviour. This overlooks three important constraints to change : first, the rationality of current practices given the prevalent climatic and marketing risks; second, the importance of resource constraints for poorer groups; and third, institutional deficiencies within and outside the community. It is crucial that a project strategy addresses these constraints in addition to meeting the need for extension.

3.9 It follows from this that there is clearly scope for speeding the introduction of new skills and technologies into the community as proposed in the original proposal. However, it is arguably more important that the project should work to strengthen the capacity within local communities to transfer skills and knowledge internally, to mobilise resources for implementation, and to access new information after the end of the project. These points are discussed further in sections 5 and 6 below.

3.10 The revised project strategy was also informed by a number of other considerations. One of these was the heterogeneity of the project area. Considerable variety exists in terms of agro-ecological situation, settlement history, socio-economic characteristics, and the type of farming system (see 7.12 below). It will be important for the project to be sensitive to these variations, both in terms of the initial selection of communities, and in the implementation of the project within those communities.

3.11 The particular temporal, geographical and sociological location of the project area in the ongoing processes of settlement, community formation, land adjudication, and the associated transformation from common to private resource use is also extremely significant. These processes have implications both for the project approach (section 5) and for the scope of the project (section 7). In particular, the continued importance of common interests in water suggests that the development of

institutional and technological innovations to improve the use and productivity of this resource should be an additional project activity.

3.12 A statement of the revised project strategy is contained in the draft Project Executive Summary included at annex D. This may be of use in preparing a future project document for Kibwezi or elsewhere.



4.

CARE AND ACTIONAID

4.1 CARE proposed to implement KEMP in two locations of Kibwezi Division : Ngwata and Mtito Andei (see map). These were identified after extensive consultation with GOK Divisional staff. Additional discussions were also held with all the NGOs operational in the Division, including ActionAid.

4.2 Discussions with ActionAid were held in both Kibwezi and Nairobi during 1990. These confirmed CARE's intention to implement KEMP in Kinyambu and Uthithi sublocations in Ngwata Location, and Kathekani and Muthingini sublocations in Mtito Andei Location. CARE was also left with the impression that ActionAid's programme would exclude agriculture (food security) in these sublocations. The Nairobi office of ActionAid was provided with an executive summary of the KEMP proposal in December 1990.

4.3 ActionAid were also reviewing their programming in Kibwezi Division during 1990, and appraised new 10 year Programme in August 1990. This involved the restructuring of the ActionAid programme. The geographical coverage was reduced from four to two locations - Kikumbulyu and Ngwata - and the Programme expanded to include agriculture, water, education, health, and family income. The agriculture component concentrates on food security, and now covers terracing, tree planting, animal traction, and general agricultural extension (including drought resistant crops). It has a total staff of 11 - including one agricultural extension worker in each sub-location - and an indicative budget of Ksh. 2.3 million rising to Ksh. 5 million in 1996. Detailed PRA will have been completed in 35 of the 119 villages within the two locations by the end of July 1992.

4.4 The extent of the ActionAid programme in Ngwata location was only made known to the KEMP appraisal team in a meeting with ActionAid in Kibwezi. It presented two significant problems for KEMP as designed. First, Ngwata location contains upwards of 60% of the KEMP target population and, because of its higher population density and the existence of a new settlement scheme, probably represents the more productive of the two locations from the point of view of the project. CARE project preparation had been concentrated in Ngwata. Second, the existence of a similar, if not identical, NGO programme in Kibwezi limited the extent to which KEMP could be justified on the basis of piloting a different community level approach in the ASAL. Some differences do exist in the activities (eg. ActionAid is not promoting cash crops or livestock; CARE was not intending to promote animal traction) and approach proposed. The emphasis on PRA, working through self-help groups, and the introduction of sustainable skills within the community are common to both approaches, but ActionAid do not appear to be investigating the potential for integrated natural resource management on a catchment basis as would have been proposed in the CARE project.

4.5 Alternative courses of action were discussed with CARE

Kenya and BDDEA on 21 June 1992. Three main options were considered:

- (1) overlap with ActionAid in Ngwata location;
- (2) reformulate the project for Mtito Andei and/or Makindu locations;
- (3) implement a similar project elsewhere in Kenya.

4.6 It was concluded that an overlap between the CARE and ActionAid projects in Ngwata location was neither sensible nor justified in view of the high degree of duplication which would result. Implementation in Mtito Andei and/or Makindu was and remains a possibility. The objections to such an option are that it would be logistically inconvenient to implement a project which straddled Ngwata and Kikumbulyu; the generally accepted lower development potential of Makindu and the fact that it was not identified by GOK Divisional staff; and the small size of the project if implemented in Mtito Andei alone. A project in Mtito Andei could still be implemented by CARE, but would probably be too small for bilateral funding. More importantly, neither combination of areas answers the second problem, which the absence of a justification for the CARE project as a pilot project with wider replicability, given the existence of a similar ActionAid project in Kibwezi (4.4 above). There may well be a case for a similar CARE project in Mtito Andei and/or elsewhere, but the definition of such a case was not possible in the time available to the team.

4.7 These arguments led CARE and BDDEA to direct the appraisal team to limit its further work to (i) a review of the appraisal issues identified; (ii) limited redrafting of the KEMP proposal where useful; and (iii) an initial visit to Taita Taveta District to see whether this represented a potential alternative area.

4.8 The remainder of this report is restricted to the first two of these tasks. A short visit was made to Taita Taveta, but it rapidly became apparent that the District was extremely well covered by other projects. DANIDA have a long-standing project covering all the ASAL locations, and have now been joined in the District by the IFAD funded Coast ASAL project. PLAN International will shortly start work in the one ASAL sub-location which had not been covered by the DANIDA funded project.



**Issues**

5.1 The KEMP project proposal identified women's self-help groups, primary schools and individual farmers in selected communities as the target groups through which the project would work. The reasons for this choice were that female-headed households comprised over 60% of households in the area; that children would become the conservation agents of the future; and that individual farmers might serve as models for the communities in which they resided, through which the project could demonstrate the benefits of environmental management.

5.2 The proposal argued that despite the fact that most communities were composed of recent migrants to the area from diverse areas of greater resource scarcity, the history of group mobilisation in Kibwezi indicated a cohesive community spirit based around the self-help group (mwethya), in particular those groups organised by women. The proposal suggested these groups were in some manner representative of a whole community. By extension, the proposal also inferred the groups would be able to define a set of common goals which would link environmental management to livelihood needs.

5.3 BDDEA identified a need to refine the proposal in three ways :

- i) to define these communities more precisely;
- ii) to identify who within these communities should make up the target groups for the project;
- iii) to indicate how many of these groups the project should work with.

**Discussion**

5.4 The rhythm of migration into the area has been uneven: administrative "villages" - settled originally in the late '60s and early '70s - consist of self help groups that incorporate members who arrived in the zone at the same time and who came together both to carry out collective tasks and to target assistance from outside NGOs. They do not necessarily occupy contiguous land. Settlers arriving later in the community (and there is evidence of a considerable influx of population over the last two years in the wake of the land adjudication process) are prevented from joining the original self help group by the high level of entry fees the former charge (Ksh. 2,000 - 3,500), which reflect the investment founder members have made in the group up to the date at which the new members wish to join. Entry fees to these founder groups are therefore rising. Furthermore, as there is now no free land left in Kibwezi Division, all new migrants have to purchase land.

5.5 Field work carried out by the appraisal team indicated that in many cases self-help groups were not village-wide, nor do they

necessarily share an identical set of natural resources. In Mtito Andei Location, for example, while many self help groups had existed for five years or more, their membership and creation were more linked to the timing of arrival of migrants to the area. As a result, the socio-economic characteristics of groups are highly diverse.

5.6 Self-help groups are not kin-based. Further, the origins of the constituent members are diverse: in many villages households originate from more than five different locations in upper Machakos, other districts, and varied ethnic groups who formerly had no social or economic ties. Self-help groups cut across socio-economic boundaries and incorporate both the better off and the poor, or may consist of poor households who have come together. On the other hand, the experience of Action Aid in Ngwata is that the poorest households are often not part of self-help groups.

5.7 Older self help groups have already carried out the initial tasks of clearing land and fencing, and have diversified into shops, water tanks, sub-surface dams, fruit tree budding etc. Faced by high entry fees and a menu of activities being carried out by existing mwethyas that do not address their needs, more recent migrants often form their own groups. However, if a migrant is wealthy enough she/he will join several groups offering different activities, thereby accessing a "portfolio" of development activities from initial land clearing, fencing etc. ("first-generation" activities), to terracing, water provision and small-scale trade.

5.8 Thus villages consist of several different groups reflecting socio-economic and historical circumstances. In the areas the appraisal team visited in Mutito Andei the formation of a cohesive community composed of groups sharing a common goal is at an embryonic stage. There is evidence that the recent allocation of secure land rights to households making up administrative villages is contributing to building stronger links between constituent households. Some more recent groups incorporating larger numbers of households are being formed around "second generation" activities such as terracing, home improvement, fruit tree propagation and tree nurseries.

5.9 It is therefore apparent that communities will differ in a number of significant ways. Variation will exist, firstly, in the representativeness of their self-help groups, and secondly, in the opportunities for bringing the groups together to form wider collective entities. The latter may be the most effective way of promoting environmental management among constituent households. There are also important differences between production systems occupying areas with different resources (see section 6).

5.10 Another significant finding from interviews conducted was



that self-help groups are able to suggest an agenda of activities that provide **private** benefits from **collective** action, such as in land clearing, terracing and fencing ("collective-private" action). The fieldwork also suggested ways in which **collective** action might provide **collective** benefits, particularly in the case of initiatives aimed at providing improved access to, and use of, water resources across a catchment area ("collective-collective" action).

5.11 In summary, the fieldwork raised questions about the representativeness of self-help groups in geographical and socio-economic terms, and about the capacity of any one self-help group to represent the interests of a wider community or administrative village. It indicated that there are economic and social divisions between self-help groups within communities that reflect ethnic affiliation, place of origin and the stage at which different groups have reached in bringing resources into production. On the other hand, it suggested that there may be opportunities for several self-help groups within a village to come together around a set of common goals, possibly on a catchment basis.

5.12 These differences may have important consequences for the management of natural resources bounded by the land individual households own, inasmuch as founder self-help groups may have no interest in contributing to newer (and maybe poorer) groups' needs. If they have made significant investments in their own group they may be particularly unwilling to share benefits (i.e. credit for water tanks, access to group shops) when they receive little in return.

### Conclusion

5.13 The important conclusion is that PRA phase will need to consider the three broad alternatives for project action : to work with **villages** where these are cohesive and have clear common goals; to work with self-help **groups** within communities that may have common interests in particular activities and resources; or to work on interventions aimed at **individual households**. An initial project approach might encompass all of these alternatives. The PRA will need to assess the options and trade-offs that exist at the village, group and individual household level for project interventions. It will be vital to ascertain the cross-cutting interests that producers at different stages of development have between individual households, groups and at the village level, if the project is to implement a coherent programme of environmental management.

5.13 It is therefore recommended that the PRA phase proposed in the KEMP project focus upon three key areas :

- (1) the range of different agro-ecological and socio-

economic situations within the project area;

- (2) the characteristics of self-help groups found in particular situations, with particular reference to their ability to include all types of household;
- (3) an assessment of the current and potential benefits within selected villages which accrue from collective-collective, collective-private and individual initiatives.

5.14 With regard to (2) the aim of the PRA phase would be to identify the shared interests and divisions within villages that will define the possibilities for the project to intervene at the community level (eg. water-catchment management). With regard to (3), PRA would identify the most effective way in which the project might intervene at individual household, group, and village level. The initial agenda for intervention might be provided by rural producers themselves through overlapping priorities common to all self-help groups (the village level), goals identified by individual groups (the group level), and individual needs established through household interviews.

5.15 The longer term objective of the work would be to build community institutions through an integrated approach to individual interventions (eg. cash crops), group work (eg. land clearance) and village initiatives (eg. water catchment management). Over the life of the project this would develop the linkages between communal, group and individual activities in increasing the productivity of the natural resources upon which rural households depend.



6.

GOVERNMENT INSTITUTIONS

6.1 The aim of this section is to examine the relationship between the proposed project and government institutions, particularly the extension services.

6.2 The CARE proposal made no mention of local government structures. Historically Kibwezi division was covered by the Machakos County Council. In 1992 the new district Makueni was created and the reorganisation of local government through a reconstituted Makueni County Council is in progress. However, this omission in the proposal is not crucial in Kibwezi as no local authority capacity exists at the Divisional level. For example, only Ministry of Culture and Social Services (MCSS) staff are present in the Division.

6.3 The CARE proposal was more explicit with regard to government and NGO extension services. It proposed to work closely with the central government utilising their technicians as resource persons. However, both the shortage of GOK field extension personnel, and the lack of operational resources, were recognised. At the time of project preparation there were only 6 Ministry of Agriculture (MOA) and Forest Department (FD) extension agents. MOA, FD and the Ministry of Livestock Development (MLD) have since increased the number extensionists. However, most of them are effectively desk bound because of the lack of vehicles and operating costs. The Divisional FD has not, for example, had an allocation for transport in the last two years. Most GOK extension staff are only able to visit the field if assisted by one of the NGOs operating in the division.

6.4 Given these circumstances, the stated strategy was to complement and strengthen the activities of other agencies by inviting their participation in project training and planning activities. It was also proposed to strengthen the linkages between communities, government and other agencies. However, in practice the major part of the extension input was to be provided by an additional 12 CARE extension agents.

6.5 The appraisal team considered that three non-exclusive alternatives exist :

- (1) to support and strengthen existing government extension services;
- (2) to strengthen the capacity and skills within the community;
- (3) to provide additional CARE extension agents.

6.6 There are two drawbacks with establishing a parallel CARE

extension service. First, its inherent unsustainability, and secondly, the possibility that it might, in practice, bypass or duplicate the government extension services. It is extremely unlikely that community institutions would employ the extension agents when CARE leaves. It is also unlikely that local government authorities will have funds to spend on extension. Even in areas where a crop cess on cotton or other cash crops has been imposed, extension rarely receives systematic support.

6.7 Unsustainability is not necessarily a problem provided the CARE presence is seen either as a one-off input or as developing the institutional capacity in the community and/or government. It is also perfectly feasible to ensure that maximum use is made of the technical expertise within the GOK services in the design of extension "messages" and natural resource management plans. In this way a CARE input could be properly additional and complementary.

6.8 However, the additional option of actively supporting and strengthening the GOK extension services is not without its problems. While theoretically offering a more lasting solution than could a CARE extension service, in practice sustainability would still be limited. There is no guarantee that any additional skills gained to GOK staff (eg. in group extension work) would remain in the Division, or even ASAL areas, given the frequent turnover of staff. More importantly, there could be no assumption that GOK would be any more able to provide the necessary vehicles and operating budgets in 5 years time than they are today. Any strengthening which depended on increased resources would therefore only last as long as the project.

6.9 It is these drawbacks in both the CARE and GOK extension options which makes it essential that the primary focus of the project should be on developing the institutional capacity and skills within the community as the most sustainable option, including strengthening the linkages between the community and outside private, NGO, and government agencies. A group extension approach would both reduce costs and fit in with the social patterns of work organisation.

7.1 KEMP proposed to elaborate an extension programme through Participatory Rural Appraisal (PRA) in selected communities in the area. The project would draw from a menu of options developed initially by the base-line study, and reinforced by future PRA in the selected communities. These options include:

- 1) the promotion of drought resistant crops
- 2) the introduction of new cash crops
- 3) tree planting
- 4) agroforestry
- 5) livestock

These messages would be incorporated within a community planning and extension framework aimed at promoting low-cost interventions.

7.2 One of the main questions raised of the proposal was whether the extension messages were appropriate and viable. The appraisal team was also asked to assess the potential economic impact of the proposed technologies, both in terms of household income and in relation to the total costs of the project.

7.3 The problem raised by the ActionAid presence in Ngwata limited the extent to which it was either possible or sensible to investigate these issues. The time available for fieldwork in Kibwezi was curtailed, and project re-design did not progress to the stage where cost-benefit analysis was possible. The discussion presented below is necessarily only indicative for this reason.

#### **Extension approach**

7.4 The limited fieldwork carried out revealed that considerable awareness of improved technologies already exists in the project area. For example, farmers in many areas already possess practical knowledge of improved land use practices, including: water harvesting, range management, and tree planting (mainly fruit trees). Risk-reducing crop and livestock strategies are also well developed, as would be expected.

7.5 Knowledge of improved technologies has come from a variety of sources : from the interventions by NGOs in the past; from knowledge brought with households from the areas they left; from informal contacts that community members have had with communities in other ASAL areas; and from the GOK's own initiatives.

7.6 A salient characteristic of how these improved techniques have been adapted by communities is that they have remained sectoral. No integrated approach to the management of natural resources has been generated at the community or extension service



level, or by NGOs working in the field, in spite of the fact that it is GOK policy to work on a water catchment basis. This is readily understandable given the fragmented nature of rural communities in this area (see section 5 above), the sectoral organisation of formal extension services, and the uncoordinated nature of NGO initiatives.

7.7 This appraisal supports KEMP's approach to developing extension messages through participation with rural producers. It is recommended that main emphasis of the extension should be at the group or village level. One objective should be to integrate the present disparate extension packages into a resource management plan for a bounded catchment area containing a range of communal and privately owned assets. The extension messages should aim to link village-wide initiatives with group activities so as to build an awareness within the community of the integrated characteristics of natural resources and environmental management systems. Extension advice should primarily be designed for delivery to groups within specific catchments, thereby reducing extension costs and increasing the community definition of collective environmental goods. This should not, however, be to the exclusion of extension messages readily amenable to individual action.

7.8 As discussed in section 6 above, it is doubtful whether the strategy of NGOs creating their own parallel extension systems is sustainable and useful. Rather than rely on hired extension agents, community-based extension/resource people should be trained within the community. Some NGOs - such as World Neighbours, ITDG, AMREF and the Catholic Diocese of Machakos - are already pioneering this approach in Kibwezi. It will be important for a CARE project to begin by learning from this and other NGO approaches.

7.9 Central to this approach is the idea that systematic PRA would lead to the generation of sequential village/catchment plans, both in terms of activities and areas. Further, it is hoped that during PRA, communities will find a formula for integrating/federating the existing self-help groups to cover the wider village or catchment. Many of the proposed extension messages make particular sense when considered as part of a broader approach to soil and water management on a catchment basis.

## Technologies

7.10 The issues raised in the KEMP proposal address the relevant concerns of people in the project area. Agriculture is the major activity. The aim of the project is both to improve the cropping system and to introduce mechanisms to maximise access the water as the most limiting natural resource. One of the features of ASAL areas is the unreliability of rainfall. Whilst the project cannot influence the overall quantity of water available, it is possible to increase its utilisation through improved management. In addition to seeking to improve the production of subsistence crops, the project will investigate the potential for increasing cash incomes by diversification to higher value cash crops. By addressing these two issues, while at the same time promoting management systems that reduce erosion and increase nutrient access, the project aims to enhance livelihood and environmental sustainability. The appraisal team agrees that this is an appropriate strategy.

## Farming systems

7.11 Water is the major constraint in the project area. Consequently, the availability of water is the major determinant of the farming system being practiced. The rainfall pattern is bimodal with the more reliable and larger volume falling in October- December (Short rains) and the remainder falling in the long rains from April to June. Rainfall quantity declines from an average of 800mm in the Chyulu Hills to 350mm at the Athi River. Rainfall also declines from north to south (Kiboko to Tsavo National Park) through the Division. Production systems and enterprise mix also vary according to the history of migrants, and differences in wealth between households.

7.12 Most of the project area is in agroecological zone V, and contains four approximate farming systems. The first is found in the area adjacent to the Chyulu Hills where rainfall is normally more reliable (zone IV/V). Much of the agricultural land has been terraced. Crop production predominates, with maize as the main crop. Finger millet, pigeon pea, green gram, cowpeas and beans are also grown as intercropped. A few isolated stands of sorghum were noted in this area. Maize populations of up to 20,000 plants per hectare (8000 per acre) are found in this zone. Whilst there is a degree of uniformity in crop production, some diversification has occurred with small quantities of castor, sunflower, cotton and forage grasses being found. In these areas households only retain a small part of their land for livestock (a quarter of the plot according to field interviews), and these parts of the plot are probably fallowed land. Holdings are small (under ten acres for most homesteads) and the numbers of livestock kept are much lower than in drier areas. As in other areas poorer households invest in goats, and richer ones in cattle.



7.12 The second farming system occupies the middle band of the project area. As the risk of crop failure increases due to declining water availability, mixed farming predominates. A lower proportion of land on individual homestead plots is given over to cultivation, and the overall size of plot is larger (10-15 acres). Most of the agricultural land has been terraced. Livestock are of greater importance as a store of wealth for overcoming food shortages in years when crops fail. These years occur on average two years in five. Livestock holdings tend to be in goats and/or cattle depending on the wealth of the family. The cropping pattern in these mixed farming areas show three differences compared with the wetter zone near the Chyulu Hills : an increase in the proportion of millet and sorghum in the cereal mix; a decrease in the quantity of pigeon pea being cultivated; and a lower plant population of maize reflecting the greater likelihood of drought stress occurring. The livestock mix across poorer and richer households, and the type of range management initiatives, follow the pattern for drier zones discussed below, through crop residues are important as livestock feed.

7.13 The third farming system occurs in the higher elevations to the west of the main road and the area to the south east of the project area. Much of this is agro-ecological zone VI. Larger land holdings are found in these drier zones (20-30 acres on average) with the greater proportion of the homestead plot given over to range (approximately three-quarters according to field interviews). Livestock production predominates in these areas, and the risk of crop failure is extremely high. Some of the bush has been cleared to control tsetse fly, and cattle keeping is extensive. Land holdings tend to be larger than in either of the other zones with most of the land used as range. Some crop cultivation is undertaken, with millet and sorghum cultivation being more common than in the other areas.

7.14 Richer households, who migrated into the area earlier, are more likely to invest in cattle rather than goats, and have in some cases already partially cleared their land in order to improve the pasture. They have also terraced much of the land they cultivate. Poorer households who have more recently arrived in the area invest more in smallstock, particularly goats, and have yet to clear their land to improve their range. Their fields are in the process of being terraced, and a considerable investment of labour (often through self-help groups) is being made in fencing to demarcate their plots.

7.15 The fourth farming system in the project area consists of land which can be irrigated for horticultural production, mainly vegetables for urban markets. Land area varies from very small family plots to large enterprises employing paid labour. The size of this irrigated zone is limited to the area which can be irrigated from the adjacent rivers that flow from west to east across the project area. Few if any livestock are held by



households. There are indications that some farmers with access to this land are comparatively poor, though in general horticulturalists should be considered as the wealthiest group within the Division.

7.16 Wealth ranking within the Division can be correlated with the current prices of land. In the drier areas (in Mtito Andei Location) an acre of land is currently selling for Kshs. 2,000 or less; in the transition zone for between 5-7000; in the agricultural zone for between 9-10,000; and in the horticultural areas for Kshs. 11-18,000. Higher values within these ranges can be linked to the proximity of the main Nairobi-Mombasa highway, and proximity to urban centres. There is clear evidence of wealthier people owning substantially larger acreages (over 200 acres in the dry lands, 80-150 acres in the transitional zones and agricultural areas). Some particularly wealthy people have access to large holdings of irrigated land.

#### **People and settlement**

7.17 Migration into the region has occurred at different times, and the population is unevenly spread. The region was originally designated as hunting zone no. 4 and was uninhabited until the late 1960s. Early migrants did not have land rights. Subsequent in-migrations culminated in a large influx of population associated with the land adjudication process two years ago.

7.18 People migrating into the area have come from two main sources : from higher potential areas in Machakos District where access to productive land became limiting, and from the resettlement of people moved out of the Chyulu Hills National Reserve.

#### **Drought resistant crops**

7.19 The project proposed to promote drought resistant crops such as sorghum and millet as a mechanism to reduce risk. Maize is the preferred crop but is extremely susceptible to drought. While the promotion of more drought tolerant crops clearly makes sense, the fact that sorghum and millet are already being extensively grown in the project area, especially in the long rains and in the more drought prone areas, suggests that the potential for significant inroads in this area may be limited. Farmers are well aware of the risks of growing maize in this environment, and can be expected to have a rational risk spreading strategy which takes into account the risks and merits of different crops. A major component of this strategy will be a reliance on a mix of enterprises, and particularly on being able to compensate for bad crop years by selling livestock or relying on off-farm income. Maize yields may be highly variable, but it is possible that in

economic terms the traditional maize - smallstock combination represents a better strategy than switching to less popular, drought resistant crops. There are good reasons for retaining sorghum and millet as elements of the extension message, but it is considered that the potential is more limited than suggested in the KEMP proposal.

7.20 One of the main constraints to sorghum and millet cultivation is the high labour requirements for bird scaring. Some farmers even assess the abundance of nesting birds in the vicinity before deciding whether to plant sorghum. It is therefore surprising that ICRISAT sees early maturity rather than bird resistance as the major desirable trait in millet and sorghum lines. The availability of bird resistant varieties for the project may be limited as a result.

#### **Cash crops**

7.21 The proposal suggested cash crops such as sesame, sunflower, cotton and castor as a way of increasing cash returns. The major problem here is likely to be marketing. Current prices of sesame and sunflower (KSh. 5.40 and 5.30 per kg. respectively) are not attractive to farmers. Sesame is grown in one sub-location in the Division, but sunflower is reported to be dying out as a crop due previous marketing failures and a shortage of seed.

7.22 Cotton should be a profitable and appropriate crop for this area, particularly at the current price of KSh.12 per Kg., and was widely grown in the past. Indicative gross margins suggest that cotton may be an attractive crop compared with maize (although much depends on the maize price used), particularly in years of lower rainfall. However, once again, poor marketing and delayed crop payments have discouraged farmers. The recent promotion of castor in the project area by KENSICA (Kenya, Sisal, Castor) will no doubt be viewed with justifiable scepticism by farmers for the same reason. Castor was grown previously, and the price of Ksh. 4 per Kg. may be attractive. However, no yield data was available in the project area, the processing factory has not yet been completed, and it remains to be seen whether KENSICA will prove to be the exception to the rule in terms of marketing. A cautious approach to the promotion of cash crops is indicated.

#### **Soil and water conservation**

7.23 The CARE proposal was aware of the need to conserve natural resources, particularly water. The benefits of soil and water conservation would also appear to be realised by farmers. Terracing is becoming widely practiced, often as a self-help group activity. Some households are even hiring labour to undertake terracing. The project would want to build on this trend, and also to encourage systematic terracing on a catchment basis to ensure



a long-term increase in the availability of water. Water harvesting technologies are relevant in this context. It is recommended that these should be included in any future project proposal.

### **Horticulture**

7.24 The project proposal proposed to provide extension advice to small farmers practicing irrigated agriculture. This opportunity was correctly identified, although the extent of this activity is severely limited by the availability of water. There may be some potential to expand this area where there are possibilities for water harvesting and storage. It would appear sensible to expand the range of opportunities being promoted to include export crops should suitable private sector marketing agencies exist for smallholder produce.

### **Seed**

7.25 One agricultural constraint identified by the appraisal is the limited range of germplasm being cultivated by farmers in the project area, and the limited availability of seed more generally. This situation has been exacerbated by the drought that has affected the project area over the past 18 months which has seriously reduced farmers access to seed. The current situation highlights the need for farmers to have access to different varieties of crops, and for improved seed storage within communities. The appraisal team considers that demonstration plots should not be the main method of extension. It is recommended that the project should consider a participatory extension programme involving small plots of alternative crop varieties under farmer management, and possibly simple on farm "trials" to verify new varieties, crops and methods before they are extensively promoted. This would be preferable to relying on the recommendations of research stations located outside the project area.

## Forestry

7.26 The assumption that water was insufficient to promote on farm tree planting on a large scale appears to be correct. However, the case for promoting fuelwood saving technologies is extremely weak. There is no current or impending shortage of fuelwood which warrants this type of intervention. This is confirmed by baseline data indicating that households are much closer to sources of fuelwood than they are to water. The promotion of high cost Jiko stoves would be inappropriate in this context.

7.27 However, two appropriate recommendations are the promotion of indigenous and other fruit trees around the homestead, and the production of trees for livestock fodder. Melia volkensii would be a good fodder species, although it is understood that germination still presents a problem. The proposal also suggested Dalbergia melanoxylon as a suitable tree. Whilst concurring that production of trees with good carving properties should be included as an option, it should be recognised that the choice of species must be guided by farmers' preferences and priorities. Slow growing timber trees such as Dalbergia are unlikely to be a priority. It is recommended that fruit trees should be the focus of forestry activity in the first instance. In some communities there is already a local skill base to bud citrus trees. The project could extend this technology to other communities in the area as well as diversifying the range of fruit trees grown around the homestead. All tree planting should be private rather than group or communal.

## Livestock

7.28 The project proposal suggested interventions in the areas of poultry, bee-keeping and fodder production. The appraisal team feel that there may be possibilities for these interventions, but that they should not be a major focus of activity. The existence of adequate markets is likely to be a constraint, and the introduction of more susceptible poultry breeds should not be encouraged in the absence of improved veterinary care (see 7.28).

7.29 The extensive nature of the livestock system does not suggest that there are good prospects for the widespread adoption of fodder innovations. However, the project should be willing to respond in this area if requested to do so, especially given the ready availability to technical resources at Kiboko Range Research Station. There would also be merit in increasing the range of livestock activities which would be covered by the project in view of the importance of livestock in the area, especially as a fall-back income source in drought years. Additional areas could include animal traction, the improved management of smallstock, and range/browse management strategies.

7.30 The appraisal team also felt that there was potential for collaborating with the ITDG "barefoot vet" programme in order to increase farmers' access to veterinary services. This would obviously depend on the location of the project and the local skills available.

#### **Off farm income**

7.31 The project proposal included support for small business development as one way of increasing cash incomes. Notwithstanding CARE's experience in this activity, the team was not convinced of the small business potential in Kibwezi, and considered that there would be advantages in keeping the project as simple as possible. It is accordingly recommended that the project should restrict itself to agriculture, farm forestry, and livestock.

#### **Conclusion**

7.32 It has not been possible to carry out a detailed appraisal the technologies proposed, in part because of the need to curtail the fieldwork. However, the strongest indication of technical viability lies in the fact that many of the technologies suggested proposal are already practised by some households in the project area. Nor is it apparent that practice and awareness is narrowly restricted to less poor households with access to capital and labour, although these factors are clearly important. The investment being made in terracing is a case in point. Thus, while implementation and evaluation represents the only real test of the appropriateness and impact of these and other technologies, the appraisal confirmed that there is at least a promising menu of interventions from which to start.



## **8. SUSTAINABILITY**

8.1 The sustainability of the KEMP project was identified in the appraisal terms of reference as an important issue. Two aspects of sustainability were considered : institutional and environmental. The equally important question of financial sustainability is not considered here in view of the uncertainty about the design and costs of the final project.

### **Institutional sustainability**

8.2 The unsustainability of the proposed CARE extension service has been discussed above (paras.6.6-6.9). The preferred option is for CARE to perform a finite institutional strengthening role, the main focus of which would be to develop the institutional capacity and skills within the community as the most sustainable solution. This could extend to creating a community based natural resource management system, operated and managed by more complex group forms at the village level. It would also involve strengthening the linkages between the community and outside private, NGO, and government agencies.

### **Environmental sustainability**

8.3 The project is likely to enhance environmental and livelihood sustainability in a number of ways. ASAL areas inevitably suffer from periodic droughts. Whilst not actually increasing the overall quantity of water available, the project aims to establish systems that will reduce the risk of crop failure by promoting increased efficiency of water use through terracing and water harvesting techniques. The project will also promote improved soil management which is critical for sustained production. Measures such as terracing and manuring will reduce soil erosion, and improve soil structure and fertility.

8.4 Fuelwood availability in the area appears more than adequate to satisfy the needs of the target population for the foreseeable future. Fuelwood use does not therefore affect environmental sustainability at present.

8.5 Crop protection chemicals are not being promoted by the project. However, they are currently used for horticultural production and grain storage. The project will not be promoting new chemicals, but will encourage the use of less dangerous and more environmentally friendly products.

8.6 The major threat to sustainability is prolonged drought for the duration of the project. Historic rainfall data suggests that such a prolonged drought is unlikely, although the risk of shorter



droughts is an unavoidable reality.

## 9. REPLICABILITY

9.1 The appraisal team was asked to consider the extent to which the approach and lessons of the KEMP project would be replicable or adaptable elsewhere. Replicability was assessed by considering the similarity between Kibwezi and other ASALs, both in terms of agro-ecology and community organisation.

9.2 There are three key features of the project area. First, Kibwezi Division in general, and Mtito Andei Location in particular, is a buffer zone bordering the Tsavo National Park. Second, the Division is an area receiving significant numbers of migrants, most of whom have limited resources and or experience of dryland farming. Third, land is under adjudication. Over the past thirty years or so it has moved from communal to varied forms of individual ownership. These three features make the Division an important area for testing replicable strategies for zone 5 and 6 ASALs in Machakos, Makueni, Kwale, Tharaka-Nithi, Kitui, and Meru Districts where National Park buffer zones are receiving migrants and land is increasingly held under private title.

9.3 Four approximate farming systems were identified in the area (para.7.12). This typology was made with reference to the primary constraint in the area: water/rainfall. Improved utilisation of natural resources would suggest that maximising the harvesting and use of water might best be done through a catchment management plan. Lessons learned can be replicated in the mixed farming systems found in zones 4, 5 and 6 in the rest of Makueni, Kwale, Machakos, Kitui, Meru, and Tharaka-Nithi districts.

9.4 The dominant Kamba group in Kibwezi have historically organised for group work in increasingly complex and large-scale management systems, from **Mwilaso**, through **Mwethya** to **Vuli**. It can be shown that traditional work groups and their derivatives also exist among communities in Kamba districts of Makueni, Machakos and Kitui as well as in the ASAL districts covering the related ethnic groups of the Embu, Meru and Tharaka. This suggests that a strategy which uses the **Mwethya** unit identified by, among others the ODI 1992 study, as the main instrument for conservation and management of Machakos District, could be replicable in Embu, Meru and Tharaka Nithi. This project will be working with traditional self-help institutions in a setting where households from diverse areas have been thrown together on a land frontier. These processes of social and economic change are common to many other ASAL areas of Kenya. The experience of the project can therefore be expected to be of wider relevance.

## 10. CONCLUSIONS

10.1 The main conclusion of the appraisal was that KEMP cannot be implemented as designed. The main reason for this is the potential overlap and similarity with the ActionAid programme in Ngwata.

10.2 The team was nevertheless able to consider the main issues identified in the terms of reference for the appraisal. Despite the limited time available for fieldwork, progress was made in refining the community approach, and in defining the relative roles of CARE project staff, government extension services, and the community. The objectives of the project were also redrafted. These now include objectives relating to the management of shared natural resources, the development of an adaptable approach for other ASAL areas, and the strengthening the institutional capacity and skills within the community. The latter is considered essential for sustainability.

10.3 The appraisal team believes that there is potential for a smaller project in Mtito Andei and/or elsewhere along the lines of KEMP. While reservations were expressed about the potential impact of some of the technologies originally proposed, in the main it was concluded that there was a promising range of technological options which could be included in a project. The existence of many similarities between Kibwezi and other ASAL areas of Kenya also suggested that the lessons learned in KEMP would have been widely relevant.

10.4 An essential first step to designing a new project is a study covering past and current community-level approaches in ASAL areas. This was not done as part of the KEMP preparation, and would strengthen the justification for a new project. The visits to Kibwezi and Taita Taveta confirmed that there are a multiplicity of current GOK, donor funded and NGO initiatives in ASAL areas. It is important that a new CARE project takes full account of this experience. This will not only increase the chances of immediate success, but may also allow the project to pilot a different approach. It is therefore recommended that a preliminary study be carried out which will review the work which has already been undertaken in this field, draw lessons from the experience of other organisations, and relate this to national and district level environment and rural development policy. The study should also identify potential project areas within the ASAL zone. Draft terms of reference are included at annex E.



OVERSEAS DEVELOPMENT ADMINISTRATION AND CARE-INTERNATIONAL  
PROJECT DESIGN FOR THE KIBWEZI ENVIRONMENTAL MANAGEMENT PROJECT  
CONSULTANCY TERMS OF REFERENCE

(DRAFT OF 5 DECEMBER 1991)

**1. Background:**

Kibwezi is the southern-most Division of Machakos District in Kenya. It is a semi-arid area with a fragile ecology. It borders on the Tsavo National Park and Chyulu Hills Forest Reserve. Substantial migration into Kibwezi in recent years has increased the population to an estimated 160,000 people in an area of 3,400 square kilometers.

CARE has implemented various community development activities with the Government of Kenya and local communities in Kibwezi since 1980. During 1990-91, CARE undertook a preliminary project design exercise to look at the issues of increasing agricultural production, enhancing family incomes and better-managing the environment. This exercise involved conducting a baseline survey and holding discussions with local communities, government and other agencies. It culminated in the preparation of a Project Proposal document describing possible CARE interventions in Kibwezi. This document was submitted to ODA for comment and consideration for funding support.

ODA and CARE have agreed that further study is required prior to finalizing the project's design. This study will be conducted by a consultancy team in early 1992.

**2. Issues for Study:**

Issues for the consultancy team to study are described in detail in ODA's letter to CARE of 22 November 1991. Issues will also be discussed further during initial meetings of the consultancy. The major issues for study are summarized below:

- 2.1 The project target group requires more precise definition in terms of scope. A cost-benefit analysis should be included in the project design.
- 2.2 Project extension messages need to be examined in terms of appropriateness and potential impact on household income. Rapid Rural Appraisal methods may be used to gather information related to current farming practices. Trial household budgets could also be prepared to determine impact by comparing current practices with proposed improved practices.
- 2.3 The viability of community forestry and/or on-farm forestry should be assessed and the results should be included in the

project design.

- 2.4 Sustainability of project activities needs to be addressed in more detail. How and to what extent will the project strengthen and/or complement local government and community institutions ?

### **3. Outputs:**

Outputs of the Study will include the following:

- 3.1 A Consultancy Report document which includes findings and recommendations regarding the above issues plus any other points related to the project's design which the consultancy team finds pertinent. The report format will include an Executive Summary of major findings and recommendations. The summary will be supported by a detailed discussion of issues, tabulated data and a description of the study methodology and activities.
- 3.2 A draft Project Memorandum in the ODA format.
- 3.3 A revised Project Proposal (if different from 3.2 above). The revised proposal should include a Logical Framework Analysis in the ODA format and a comprehensive monitoring plan.

### **4. Activities:**

- 4.1 Hold initial meetings at national level with ODA, CARE and the Government of Kenya. Estimated time: 1 day.
- 4.2 Plan detailed schedule and methodology of the study in consultation with CARE and ODA. Estimated time: 1 day.
- 4.3 Collect and review all available documentation related to the project. Estimated time: 1 day.
- 4.4 Conduct a field survey in the Kibwezi area. This may utilize a Rapid Rural Appraisal approach and should include meetings with local government, discussions with sample community members, assessment of Natural Resources and Income Generation/Small Enterprise potential in the area and an assessment of the current and potential capacity of local government and community institutions. Estimated time: 6 days.
- 4.5 Compile and summarize all information and produce draft outputs (as described in 3, above). Estimated time: Team Report 2 days (all team members); Draft ODA Project Memorandum 5 days (1 team member); Revised Proposal 5 days (1 team member).
- 4.6 Present draft outputs to ODA and CARE, discuss reactions with ODA and CARE and prepare and submit final outputs. Estimated

time included under 4.5, above.

**5. Inputs:**

**5.1 Consultants:**

- o- 1 Team Leader for 16 Days. Candidates should have extensive development and consultancy experience in East Africa, preferably with a socio-economic or institutions background.
- o- 1 Agricultural Economist for 11 days. Candidates should have extensive field experience in East Africa and appropriate technical qualifications.
- o- 1 Agronomist/CARE Representative for 16 days. CARE proposes Mr. David Hughes for this post (CV available).
- o- 1 Sociologist/Community Management Specialist for 11 days. Candidates should have extensive field experience in East Africa in Community Management or Extension and should possess appropriate qualifications.

**5.2 Resource Persons:**

- o- 1 Kamba language speaking resource person for 6 days. Candidates should have experience in enumeration and conducting community meetings. They should possess Kamba-English translation and English language report writing skills.
- o- 1 Driver for 10 days.

**5.3 Transportation:**

- o- 1 Vehicle & fuel for 10 days.
- o- Estimated airtickets for up to two consultants from outside Kenya.

**5.4 Consultants' Accommodation and Food:**

- o- 2 Consultants from outside Kenya X 6 days in Nairobi hotel.
- o- 4 Consultants X 6 days in Kibwezi.

**5.5 Supplies and Printing:**

- o- Stationary, photocopying, printing and miscellaneous supplies.



ITINERARY

- June 15: Meet in Nairobi  
Briefing with BDDEA (Kingsmill)  
Briefing with CARE (Mitchell, Evers)  
Background reading
- June 16: Review of proposal  
Examination of goals, objectives and indicators of KEMP proposal
- June 17: Discussion of indicators for intermediate goals.  
Lunch with Kisuke Ndiku, Action Aid Training Officer
- June 18: Travel to Kibwezi  
Meeting with CARE (Moroke)  
Meeting with Divisional Officer  
Meeting with Divisional Agricultural Officer  
Meeting with Divisional Forestry Officer & assistants  
Survey of Kathekani Sublocation
- June 19: Meeting, Divisional Culture & Social Services Officer  
Meeting, Divisional Veterinary Officer,  
Meeting, Divisional Livestock Officer  
Meeting, Stephen Mweti, Action Aid Director, Kibwezi.  
Meeting, Action Aid Agricultural Officer, Kibwezi  
Meeting, AMREF Coordinator, Kibwezi
- June 20: Team splits :  
Flint and Hughes  
Field trip to Kathekani Sublocation with Moses Wagiita (DAO) and Stephen Moroke (CARE)  
Travel to Nairobi
- June 21: Meeting with Adam Wood (BDDEA) and Jon Mitchell (CARE)
- June 22: Return Kibwezi  
Meeting with ICRISAT, Kiboko  
Survey, Muthingini and Mang'elele sublocations.
- Mutiso and Moorehead
- June 20: Meeting with Muthingini sub location sub chief  
Meeting with Uvonge wa Mumo Womens Group, Muthingini  
Meeting with Utu Adult Education Group, Muthingini  
Meeting with Kyeni Kya Mbotela Self Help Group, Mang'elele  
Meeting with S. Kingungu, water pump mechanic, Mang'elele  
Meeting with Mbosoni womens' Self Help Group, Mang'elele
- June 21: Meeting with Mang'elele Subchief  
Meeting with Kathekani Subchief  
Meeting with Tumaini Self Help Group, Kathekani
- June 22: Meeting with Thome wa Atumia Ndunyaa Self Help Group  
Meeting with Ilikoni Women's Group  
Meeting with Mina Ukyia Women's Self Help Group

- Meeting with Muamba wa Ilikoni Women's Self Help Group
- June 22: Team recombines with team meeting at Mtito Andei  
Meeting with A. Wangara, CARE TYE Project Manager
- June 23: Meeting with KENSICA  
Meeting with Divisional Livestock Extension Officer  
Meeting with Divisional Farm Management Officer  
Meeting with Director, Action Aid Kibwezi  
Travel to Voi
- June 24: Meeting with District Commissioner, Taita Taveta  
Meeting with District Environmental Officer  
Meeting with Asst. District Development Officer  
Meeting with District Agricultural Officer  
Meeting with District Social Development Officer  
Meeting with ASAL Project Coordinator  
Travel to Nairobi
- June 25: Appraisal Mission Reveiw.  
Meeting with Jon Mitchell (CARE) outlining options  
Meeting with BDDEA (Kingsmill, Wood) outlining options
- June 26: Report writing
- June 27: Report writing
- June 28: Report writing
- June 29: Meeting with Mr Mbate, Ministry of Arid Lands, Nairobi  
Meeting with Action Aid.
- June 30: Report writing
- July 1: Report writing
- July 2: Report completion

ANNEX C

PEOPLE MET DURING THE VISIT

Nairobi

W. Kingsmill BDDEA Economic Adviser  
J. Mitchell CARE Assistant Country Director  
Y. Evers CARE Programme Officer  
K. Ndiku Action Aid Trainer  
A. Wood BDDEA Kenya Programme Officer

Kibwezi

J. Chepkilot District Officer  
S. Moroke CARE Representative  
M. Wangita Divisional Agricultural Officer  
J. Mutie Assistant Forest Officer  
S. Kavoo Assistant Forest Officer  
J. Kisilu Division Forest Officer  
P. Kungu Assistant Forest Officer  
Kaguthi Divisional Livestock Development Officer  
P. Mutisya Assistant Social Development Officer  
Kako KENSICA Representative  
Gachuhi Asst. Division Livestock Extension Officer  
D. Khiemba Divisional Farm Management Officer  
S. Mwita Director, Action Aid  
A. Mganza Action Aid Agriculture Coordinator  
A. Ndunda Action Aid Agriculture Field Staff  
R. Biteyi AMREF Coordinator

Muthingini

Uvonge wa MumoWomens Group  
K. Kamulo Chairman, Mumo Self Help Group  
C. Kalusi Sub Chief  
Utu Adult Education Group

Mang'elete

Kyeni Kya Mbotela Self Help Group  
S. Kingungu Water pump mechanic  
J. Maingi Sub Chief

Kathekani

J. Mwau Sub Chief  
Tumaini Self Help Group  
Thome wa Atumia Ndunyaa Self Help Group  
Ilikoni Womens group  
Mbosoni Womens Group  
J. Kitimba Manager, Mbosoni Womens Self Help Group  
Taa wa Ilikoni Womens Group  
Mina Ukya Womens Self Help group  
Muamba wa Ilikoni Womens Self Help group



Kiboko

Omari ICRISAT Technician  
H. Ngugi ICRISAT Technician

Taita Teveta

Wangara TYE Project Manager, CARE, Voi,  
P. Mbugua District Commissioner  
Otido District Environmental Officer  
G. Wangima Assistant District Development Officer  
P. Makheti District Agricultural Officer  
T. Ngumi District Social Development Officer  
D. Osiemo Project Coordinator, ASAL Project

DRAFT PROJECT EXECUTIVE SUMMARY1. Summary2. Problem Statement

Many communities in ASAL areas are composed of migrants who have moved from areas of higher population density practicing intensive farming systems on relatively rich soils to areas of poorer soil and water endowment where more extensive mixed livestock and agricultural systems are more appropriate. In the late 1960s and early 1970s, when the first movement of population took place, migrants were moving onto a land frontier, where land was plentiful and much of the zone consisted in commonage. More recently (since 1989) there has been an increased surge of migration into these areas so that at present no commonage is left, and homesteads have demarcated their plots as private property. This de facto privatisation has now been formally accepted by the government, who are in the process of adjudicating formal private title in the area.

Households that now enjoy private access to their resources are still faced with having to cope with the limited productivity of their resource base. One response to this has been out-migration to the towns in search of wage labour, primarily in the informal sector. Another has been the gradual intensification of production, which is taking on increasing importance as the opportunities for employment in urban centres and off-farm activities is shrinking or at best stagnant.

This intensification of production is taking place in a context where linkages between households making up administrative villages are at an embryonic stage, not least because the constituent members of these communities often come from diverse areas, different ethnic groupings, and have arrived in the area at different times. While there is evidence that formerly unconnected homesteads are finding a common interest in cooperating in certain tasks (land clearing, terracing), there may also be potential for coordinating institutions that will allow local communities to benefit from a more integrated management of their natural resources, upon which they increasingly depend. This is especially true for marginal groups such as the rural poor who may stand to lose their future livelihoods as the better land becomes concentrated in the hands of the wealthy.

The proposed project has an important role to play in enabling rural households, and in particular the resource poor, to increase production and improve their cash incomes so as to assure their livelihoods in the future without recourse to sale or outmigration. This needs to be accompanied by initiatives aimed at natural resource management. This in turn requires the building of institutions that integrate short term benefits with longer term initiatives aimed at conserving and improving renewable resources.

### 3. Objectives

#### **Wider Objective**

1. to improve the welfare of people, particularly the poor and women, through the development of sustainable livelihoods and associated natural resource management systems.

#### **Immediate Objectives**

1. to diversify and increase sustainable crop and livestock production and income;
2. to develop sustainable integrated management systems for shared natural resources;
3. to strengthen the institutional capacity and skills within local communities;
4. to develop an adaptable community level approach for similar ASAL areas.

### 4. Project Description

The Project will promote sustainable natural resource use by agro-pastoralists, herder-farmers and full-time farmers living in arid and semi-arid lands. This will be achieved through increasing farm production, improving cash income and building community institutions that will coordinate activities aimed at environmental management. A major focus of the project will be on poor and female-headed households.

Drawing on work undertaken by a CARE identification study carried out in Kibwezi Division in 1990, and an appraisal visit by ODA/CARE in 1992 to the same area, the project will carry out a systematic and focussed Participatory Rural Appraisal exercise in the selected area. The PRA will identify a set of communities in which project activities stand the greatest chance of success based on criteria of social cohesiveness and the presence of shared goals, and will set out a preliminary agenda for action drawn from the perceived needs of rural producers themselves. An appraisal of shared interests and divisions within the community will be especially important in those communities composed of migrants to the area that have arrived at different intervals.

Work carried out so far indicates the project will need to cover a range of agro-ecological sites. Preliminary field work indicates these will include dry areas where herder-farming systems predominate, transitional agro-pastoral zones, and areas where all land is cropped at varying intensity, depending on access to water and the reliability of rainfall. The selection of a range of such sites will make the work of the project relevant to other ASAL areas. In view of the diversity of production systems practiced in the area, it is expected that different agro-ecological zones will have varied agendas for action.

Within selected communities attention will be paid to integrating activities that provide benefits to the community as a whole, collective activities that



provide private benefits to homesteads, and individual activities at the homestead level. It is of particular importance to a project promoting long-term environmental management that the benefits of integrating individual, sub-group and community activities for natural resource management are demonstrated and perceived by rural producers. A promising field of intervention identified by work carried out so far has been in the concept of a water catchment that feeds the range of resources used by a set of households. The project will test this approach as a means of coordinating individual actions around an agreed agenda for natural resource management.

The major activities of the project will consist of the promotion of drought resistant crops; the enhancement of terracing systems; range management to improve the productivity of pasture and forage resources; the introduction of suitable cash crops; fruit trees; and water management initiatives. The project will speed the introduction of new skills and technologies into the community and will work to strengthen the capacity within local communities to transfer skills and knowledge internally through training community members. As mentioned above, the agenda for action within selected communities is expected to vary according to the preferences of the group, the agro-ecological zone, and the production system practiced.

The major output of the project will be a methodology for promoting sustainable livelihoods and natural resource management in a range of ASAL production systems. By the end of the first phase of the project the methodology should have been sufficiently developed to allow the approach to be applied in other ASAL areas.

#### 5. Linkages/coordination with other organisations

The project will build institutional links with a range of governmental and NGO agencies in order to make full use of existing knowledge and experience. NGOs with specialised experience in natural resource project implementation through community institutions will be particularly useful. These include World Neighbours, Intermediate Technology Development Group (animal health), and the Catholic Diocese of Machakos (dryland farming), all of whom already work in Kibwezi Division. These and other NGOs with sectoral experience will be contacted to avoid duplication and to ensure that the lessons of their experience are incorporated into the project.

The various levels of the District Focus institutions found at the District, divisional, locational and sublocational levels will be contacted. CARE already participates in the Divisional Development Committee through the NGO coordinating Subcommittee. Modalities for participation at the other levels will be developed.

GOK technical staff will be involved wherever possible. These include the District Environmental Office, District Agricultural Office, District Forestry Office, District Water Engineers Office and the District Social Development Office.

CARE will ensure that participating groups visit and learn from other farmers in similar zones. Some communities in Machakos and Makueni districts have implemented community based resource management programmes through self help groups. The most notable is Utooni Development Project, which will be used as a demonstration for participating groups. Other community initiatives like Machakos Dairy Farmers Association, which has organised farmer-to-farmer

extension for range improvement among its members, will offer similar opportunities.

## 6. Monitoring and Evaluation

### 6.1 Participatory Monitoring and Evaluation

Building on the PRA process, the project will use Participatory Monitoring and Evaluation (PM&E) in order to involve community members in the ongoing review of project performance. This will establish shared interest and responsibility, and a common goal.

Project staff and community members will be trained to use tools such as Focus Group Discussions (FGD) and SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis to gather and analyse information, and to provide rapid feedback.

Changes in the attitude of community participants will be evaluated. At the community level the focus will be on the adoption of techniques which increase agricultural production.

CARE's established project monitoring system will incorporate the information and analysis gathered by the PM&E methodology. Activity targets established at the beginning of each year will be tracked through an annual implementation plan (AIP). Project implementation and evaluation (PIE) reports will be submitted bi-annually at the end of December and June.

CARE will provide an annual report of project progress. CARE will also monitor the effectiveness of training activities undertaken by the project.

### 6.2 Evaluation Timing and Approach

A mid term evaluation is planned during the third year of the project. The main objective of the mid term evaluation will be to assess achievements against objectives, and to examine whether substantive changes need to be made regarding organization and management during the remainder of the project. The project will also obtain the services of an agriculturalist or environmentalist and a GAD analyst to be members of the mid-term evaluation team. The donor will be invited to participate.

A final external evaluation will be undertaken 5 months before the planned end of the project. This evaluation will examine the effectiveness of the project in terms of its achievement of goals, the communities' adoption and effective use of the technical packages, and the improvement in income resulting from adoption of the project recommended technologies. The evaluation will also serve as an examination of the CARE project management. The terms of reference for the final evaluation will be developed after the mid term evaluation.

The suggested timing of the final evaluation will allow either the timely closure of the project and the transfer of responsibilities to the community, or allow for the development of a further phase of the project.



## DRAFT TERMS OF REFERENCE FOR PREPARATORY STUDY

**Background**

The appraisal of the KEMP proposal indicated the need to undertake a review of present policy and practice in the field of participatory, community-based approaches to environmental management and livelihood security in ASAL areas. The need arises from the apparent absence of information drawing together the lessons learnt so far from the considerable experience of government, bilateral, multilateral and NGO agencies operating in the field. An opportunity presently exists to combine the lessons of this experience with the findings of other relevant studies (such as the Machakos study). This will identify the most appropriate and effective way for a CARE project to contribute to developing participatory, community-based solutions to livelihood security and environmental management in ASAL areas.

The study will focus on zone 5 and 6 ASALs in Machakos, Makueni, Kwale, Tharaka-Nithi, Kitui, and Meru Districts.

**Objectives**

The main objectives of this study will be as follows :

- 1) to synthesise the lessons of past and present community-based, participatory initiatives in ASAL areas covering natural resource management and/or the promotion of sustainable livelihoods;
- 2) to identify potential locations and approaches for a CARE pilot project;
- 3) to assist in revising the KEMP project proposal.

**Tasks**

The study will:

1. Review GoK policies on community mobilisation and participation, the "catchment" approach, and natural resource management, and relate these to the District Focus Strategy for Rural Development.
2. Review past and current experience of NGOs, government, bilateral and multilateral donors in community-based, participatory initiatives in ASAL areas covering natural resource management and/or the promotion of sustainable livelihoods, and produce a synthesis of lessons learned.



3. Review the experience of community self-help resource management in ASALs.
4. Based on 1-3, develop a community-based approach to the promotion of sustainable livelihoods and natural resource management which is consistent with GOK policy.
5. Identify possible geographical areas for a CARE project which would utilise this approach.
6. Assist in revising the KEMP proposal on the basis of the approach developed in 4. and taking account of the recommendations of the CARE/ODA appraisal mission.

#### Outputs

1. A review of policies, and of the experiences of community-based and self-help approaches to natural resource management and livelihood sustainability in ASALs.
2. A synthesis of lessons learned.
3. A revised project proposal for CARE.

#### Inputs

1. An in-house collation of relevant literature by CARE Kenya (1 month).
2. A 4-6 week consultancy to research and write the report and proposal.