

REPUBLIC OF KENYA



**Nyeri Dry Area Smallholder and Community Services Development Project**

**(Grant No. BG-006-KE)**

**Project Completion Report (Draft)**

**October 2002**

**GOK/IFAD – Nyeri Dry Area Smallholders and Community Services Development Project.  
Project Completion Report**

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**Currency and Equivalents**

Currency Unit	=	Kenya Shillings (Kshs) and pound (K£)
Kshs 20.00	=	K£ 1.00
Kshs 1.00	=	USD 0.01282
USD 1.00	=	KES 78.00
USD 1.00	=	KES 23.00 (At Project Design)

**Weights and Measures**

1 square kilometer (Km <sup>2</sup> )	=	0.39 square mile
1 hectare (ha)	=	2.47 acres
1 kilogram (Kg)	=	2.20 pounds
1 metric tonne (mt)	=	2 204.62 pounds
1 litre (L)	=	1.06 quarts

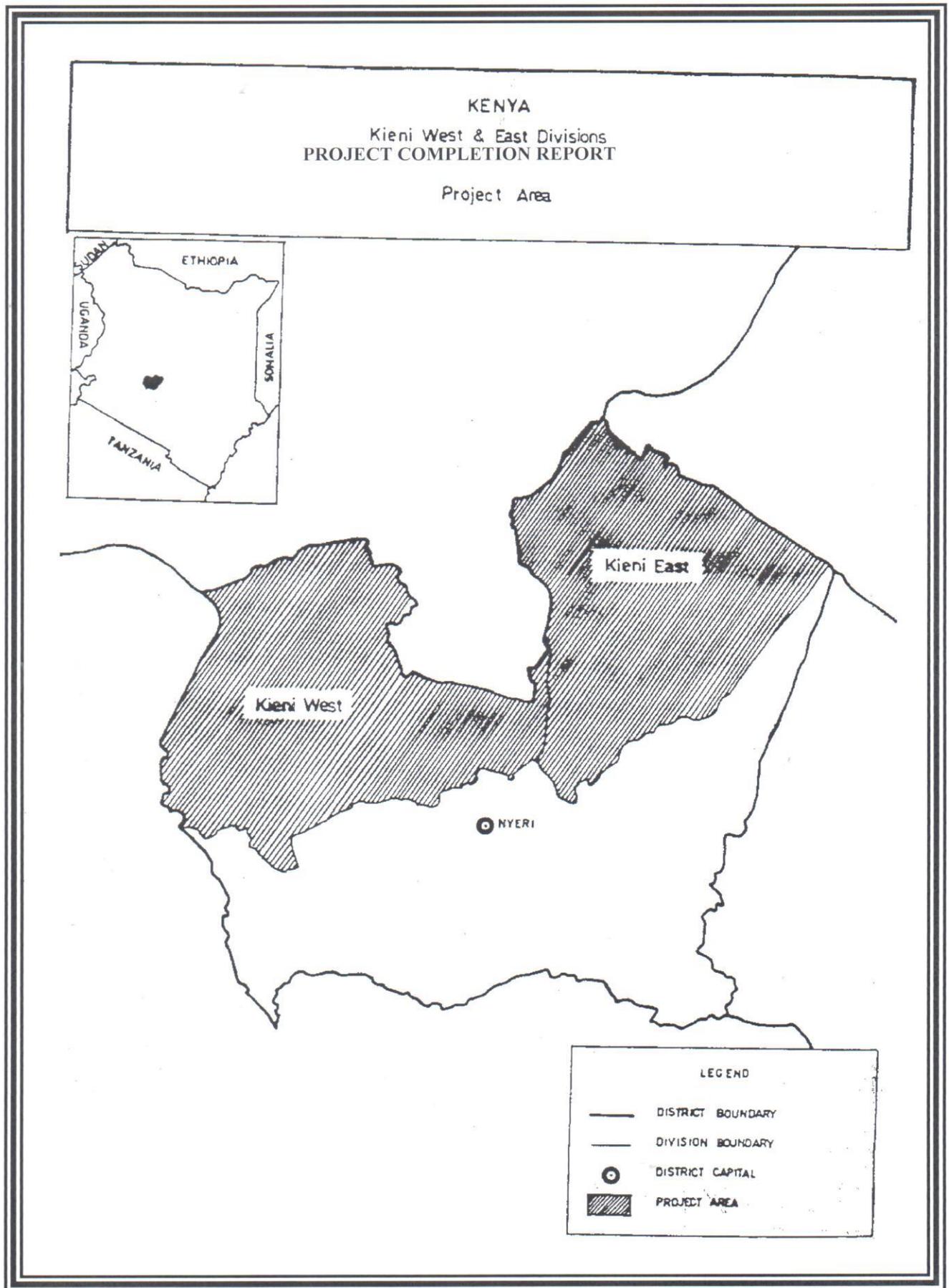
**Fiscal Year**  
July 1 – June 30

**Abbreviations and Acronyms**

AIA	Appropriation In Aid
AIDS	Acquired Immuno Deficiency Syndrome
AIE	Authority to Incur Expenditure
AR	Appraisal Report
ARW	Annual Review Workshop
AWP/B	Annual workplan and Budget
BI	Bamako Initiative
BQ	Bill of Quantity
BSF	Belgium Survival Fund
CAG	Controller and Auditor General
CAP	Community Action Plan
CBHC	Community Based Health Care
CBO	Community Based Organization
CDA	Community Development Assistant
CHW	Community Health Worker
CPR	Country Portfolio Review
DAEO	Divisional Agricultural Extension Officer
DALEO	District Agriculture and Livestock Extension Officer
DC	District Commissioner
DDC	District Development Committee
DDO	District Development Officer
DEC	District Executive Committee
DECs	Divisional Extension Coordinators
DFRD	District Focus for Rural Development
DHEO	District Home Economics Officer
DHMT	District Health Management Team
DIDC	District Information and Documentation Centre
DMOH	District Medical Officer of Health
DPHN	District Public Health Nurse
DPO	District Programme Officer
DPU	District Planning Unit
DSDO	District Social Development Officer
DSS	Department of Social Services
DSA	Daily Subsistence Allowance
DWE	District Water Engineer
DWDP	District Water Development Plan
DWO	District Water Office
EPI	Extended Programme of Immunization
ERD	External Resources Department

ERR	Economic Rate of Recovery
FDP	Final Design Paper
FEW	Front Line Extension Workers
FSO	Field Services Officer
FMIS	Financial Management Information System
FTC	Farmers Training Centre
FY	Financial Year
GOK	Government of Kenya
HFMC	Health Facility Management Committee
HIV	Human Immune Deficiency Virus
HQs	Headquarters
IDA	Incremental Duty Allowance
IFAD	International Fund for Agricultural Development
KARI	Kenya Agricultural Research Institute
KIREFU	Kieni Revolving Fund
KRDSPP	Kenya Rural Development Strategy Policy Paper
KSHs	Kenya Shillings
LEO	Location Extension Officer
MOARD	Ministry of Agriculture and Rural Development
M&E	Monitoring and Evaluation
MENR	Ministry of Environment and Natural Resources
MIS	Management Information Systems
MOFP	Ministry of Finance and Planning
MOH	Ministry of Health
MTEF	Mid Term Expenditure Framework
NALEP	National Agriculture and Livestock Extension Policy Paper
NDAP	Nyeri Dry Area Project
NGO	Non Governmental Organization
NPEP	National Poverty Eradication Programme
NSC	National Steering Committee
O&M	Operation and Maintenance
OVP&MHAHS	Office of the Vice President and Ministry of Home Affairs, Heritage and Sports
PAI	Poverty Alleviation Initiative
PRA	Participatory Rural Appraisal
PHC	Primary Health Care
PMC	Project Management Committee
PRSP	Poverty Reduction Strategy Paper
SOEs	Statement of Expenditures
SOF	Special Operation Facility
TBA	Traditional Birth Attendants
TOR	Terms of Reference
UNOPS	United Nations Office of Project Services
USD	United States Dollars
VHC	Village Health Committee
VIP	Ventilated Improved Pit Latrine
WHO	World Health Organisation
WUA	Water Users Association
CPRM	Country Portfolio Review Mission
DSO	District Statistical Officer
KREP	Kenya Rural Enterprise Programme
KWFT	Kenya Women Finance Trust
SFF	Soft Financing Facility
IGA	Income Generating activities
MCH	Maternal Child Health
NEPII	National Extension Program II
NPEP	National Poverty Eradication Plan
MOWD	Ministry Of Water Development

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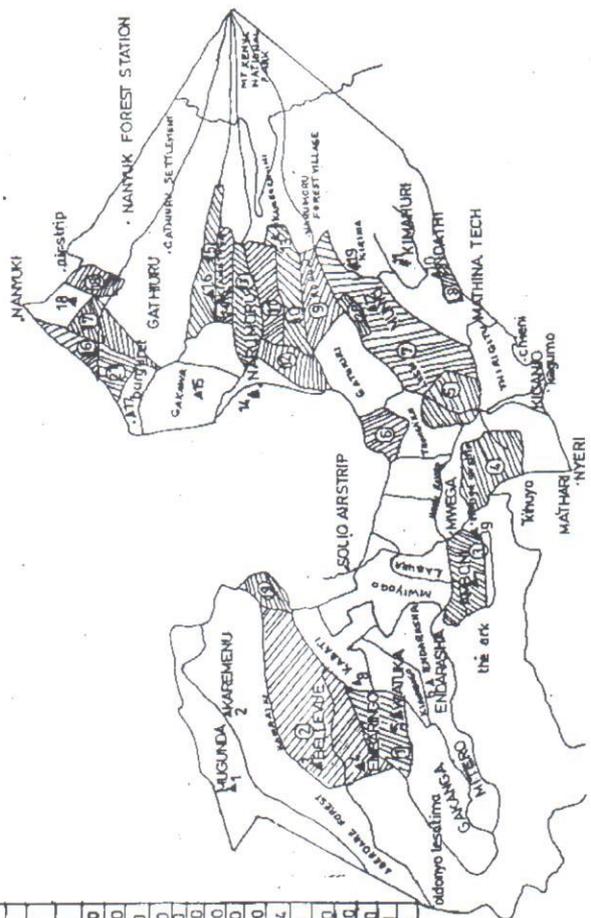
# NYERI DRY AREA SMALLHOLD AND COMMUNITY SERVICES DEVELOPMENT PROJECT

## (IFAD/BSF PROGRAMME)

PROJECT COVERAGE MAP

No	NAME	HEALTH FACILITIES
1	MUGUNDA	DISP
2	KAREMENU	"
3	BELLEVUE	"
4	EMBARINGO	"
5	WATUKA	"
6	ENDARASHA	H CENTRE
7	AMBONI	DISP
8	KABATI	"
9	MARY IMMACULATE	HOSP
10	NDATHI	DISP
11	ISLAND FARMS	DISP
12	WARAZA	H CENTRE
13	KAMBURINI	DISP
14	NAROMORU	H CENTRE
15	MURURU	DISP
16	KIAMATHAGA	DISP
17	BURGRET	DISP
18	GAKAWA	"
19	HERE	DISP

No	NAME	POP	PS
1	WATUKA	C 3240	
2	GATARAKWA	O N/A	
3	SIMBARA AMBONDI	C N/A	
4	SIMBARA KAHATONGU	C N/A	
5	KINAKI	O N/A	
6	THUNGARE	C 3000	
7	WARAZA LUSOI	PC 6000	
8	KARURUMO GIKANGA	PC 1500	
9	KIRINYAGA NYANGE	C 2310	
10	KAMBURAJINI	C 4000	
11	GILWE	C 3000	
12	NAROMORU AGUTHI	PC 2260	
13	KABUNDA	C 2500	
14	KABENDERA	C 3650	
15	MWICUIRI	C 4064	
16	MAKA	C N/A	
17	KAGA	C 3000	
18	MWEA B	C 1000	
19	LAMURIA	C 1340	
20	URUTAGWO MWIRUTI	C 500	
21	KAMANGURA	O N/A	



**KEY**  
 PS — POPULATION SERVED  
 C — COMPLETE  
 O — ONGOING  
 PC — PARTIALLY COMPLETE

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**PREAMBLE**

This Project Completion Report (PCR) provide details on overall implementation of the Nyeri Dry Area Project (NDAP). The objectives of the report are to: -

- Provide an assessment of the project in regards to design and implementation, and in achievement of project development objectives;
- Provide an assessment of sustainability of completed projects;
- Provide feedback from implementation experiences

The areas of focus are:-

- The costs and benefits of the project;
- The achievement of project objectives;
- The performance of the stakeholders with respect to obligations under the financing agreement;
- Lessons learnt during the project implementation period as a feedback to improve implementation strategies of other projects.

The PCR was prepared by the project officers who have been implementing the project. In its preparation process, the officers have: -

- Carried out a thorough desk review of all documentation relating to the project design, supervision reports from UNOPS, CPRM, Mid Term Review papers and Completion Evaluation Report of Feb 1999.
- Collected data and held discussions with the beneficiaries in the field with various groups – agriculture, water users, health and credit groups.
- Carried out a participatory evaluation workshop with beneficiaries and project staff to document the impact and sustainability of project. The workshop proceedings are given in annex XII. No attempt was done to edit deliberations as given by beneficiaries. This was aimed at giving the reader an opportunity to get reactions directly as given by beneficiaries.

## **1.0 PROJECT BACKGROUND INFORMATION**

### **1.1 Kenyan Economy**

Kenya is a market economy that largely depends on agricultural development as the main source of economic growth and development. Her population of about 30 million people is predominantly rural {80%} with agriculture providing livelihood to about 70% of the people. In recognition of the fact that agriculture has a comparative advantage, Kenya's development policies and strategies revolve around stimulating agricultural production as the principal engine of economic growth.

The country's early economic growth between 1963-73 was high averaging about 6% per annum but declined thereafter largely due to unstable international commodity prices. As an agricultural commodity exporter, the economy has been vulnerable to changes in the international market. In the 1980s, the economy experienced a declining per capita income with variable and generally slow growth rates. Successive years of drought in 1990s coupled with a high external debt, slow pace of structural reform, governance problems and high costs of doing business in Kenya due to corruption, insecurity and poor infrastructure, weakened economic growth to an average 1.7% which was below her population growth rate of 3.8%. This lack of sustainable economic growth since 1980s and 1990s has seen the economy crumble and record increased poverty levels with 52% (1997) of the population living below poverty line (US \$1 per a day) as compared to 36% in late 1970s. The impact has been more devastating in the rural areas where about 80% of the population live and secure their livelihood.

The overall thrust of the government policy is to restore high economic growth rate (>6%), increase employment and reduce poverty levels by prioritizing and enhancing efficiency of public expenditure and building up a well targeted social safety net that can guarantee benefits of growth to reach the poor. Since 1999, the government has established concrete priorities and policies for growth enhancement and poverty reduction through the National Poverty Eradication Plan (NPEP) and Poverty Reduction Strategy Paper (PRSP), which are being implemented through the MTEF budgetary process. With about 80% of the population living in rural areas, it is essential that the overall government policy focus on agricultural development with efforts to increase production and productivity in order to achieve internal self-sufficiency in major staple crops to guarantee food security, improved incomes and employment of majority of Kenyans.

IFAD/BSF assistance to Kenya, which started in 1982, developed and focused on the framework of the government's broad objective of poverty alleviation through increased agricultural productivity and off farm income generating activities. This support has been associated with smallholder agriculture, particularly, in crop and livestock production in order to improve household incomes, nutrition and food security while conserving the fragile environment. IFAD/BSF also focused its support on issues of paramount importance to improving welfare of women farmers, who are more vulnerable to poverty because of their dependence on subsistence farming and also spend a great proportion of their time searching for domestic water and wood fuel. The project's group approach strategy targets, promotion of women friendly, time saving and energy efficient technologies and practices.

### **1.2 Project background**

The Nyeri Dry Area Project (NDAP), is located in two divisions in Nyeri Districts namely, Kieni East and West. The project was co-financed by BSF (through IFAD) and GOK. The total cost of the project was USD 4.29 million with the BSF contributing USD 3.5 million and GOK USD 0.79 million. The objectives of the Project were defined as those of (a) Strengthening the institutional capacity of the Project district to plan, implement and monitor development in order to provide the rural populace (target group) with more responsive and effective services; (b) raising food production, income and well being of the Project beneficiaries through increases in agricultural production and productivity; (c) improving the health of the population through cost-effective primary health care, provide safe drinking water and promote improved diet (d) promoting beneficiary participation in the planning and implementation of rural development projects, a process which was based on the Recipient's felt needs in order to facilitate cost-sharing. The project was designed in 1991 as a pilot project and was born from the 1985 BSF support to Siaya Farmers Groups and Community Support Projects, but designed to test BSF development approaches in a dry ecological situation with different socio-cultural conditions. This project operated in a semi-arid area with severe problems of poverty and underdevelopment. The Kieni Divisions were drought prone areas associated with high risks of both transitory and chronic household food insecurity. The area receives low rainfall (500mm p.a) and rainfed subsistence agriculture was the main source of livelihood of the population. The project covered an area of 1,024 km<sup>2</sup> with a population of about 140,000 persons consisting of smallholder farmers with less than 2 ha.

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The project duration was 7 years and was originally scheduled for completion in December 1999. However, at the expiry of the 7-year period, the project was granted an extension for an extra 2½ years so that it could mainly do the following: (a) consolidate its achievements that were reported to be substantially high, especially in the Public Health Care (PHC) component; (b) complete on-going project activities; (c) utilize the balance of about 59% of the USD 4.3 million originally allocated to the project that had not been spent due to slow rate of grant disbursement at the early stages of project implementation. The revised completion date was set as 30<sup>th</sup> June 2002 and as of that date the total project expenditure was Kshs. 245,154,048 (USD 3,143,000)<sup>1</sup>.

### **1.3 Summary of Project Performance at a Glance**

NDAP has been implemented for 9 fiscal years (1991/1992 – 2001/2002) and closed in June 2002<sup>2</sup>. The project was designed with 5 components namely: (a) Agricultural Production, (b) Health Sanitation and Water, (c) Institutional Support Development, (d) Group Development and (e) Special Financing Facility (SFF) with the overall objective of introducing measures that would reduce mortality and morbidity and improve the well-being of the rural poor in the project area. However, in 1996 during the Country Portfolio Review (CPR) Agricultural Production and Special Financing Facility components were cancelled.

**Primary Health Care (PHC):** The designed physical activities under PHC were all achieved. Four new health facilities were constructed at Wendiga, Gakawa, Burguret and Kiamatha, together with staff houses, and all are operational. Three old facilities (Naro-moru, Warazo and Bellevue) were rehabilitated. Maternity units have been added at Naro-moru and Bellevue and a room rehabilitated for similar use in Warazo. Vehicles, motorcycles, equipment and furniture to enhance project implementation were procured (see Annex IX and Appendix 1 for a list of equipment procured). In total, fifty-eight bicycles were provided for CHWs, TBAs and health unit staff. The Ministry of Health has deployed health workers to all the health centres/dispensaries assisted by the project. By September 2002, the project assisted health facilities had 3 Enrolled Nurses, 28 Enrolled Community Nurses, 6 Public Health Technicians, 1 Clinical Officer, 1 Community Nutrition Technician, 1 Laboratory Technician And 2 Kenya Registered Community Health Nurses.

**Domestic Water Supply:** Under this component a total of 21 domestic water schemes have been started with 12 completed, 6 partially completed and 3 on-going. The total number of households connected is 4,000. It is planned that when all the schemes are completed and commissioned, 10,445 households will be connected to safe drinking water, serving a total population of over 80,000 people. This is higher than the original number of 6 schemes in the project design and a target population of (3,000HH) or 20,000 people. Each community water scheme has a well-managed Water User Association (WUA) formed as a condition of support from the project. High beneficiary participation and contributions to the schemes construction led to the achievement of this high number of schemes (see Annex VII: Appendices 1 - 3).

**Agriculture Development:** Unfortunately, this component did not achieve much. The component was cancelled in 1995/1996 except for the Home Economics sub-component which mainly focused on women groups in supporting such activities as kitchen gardens using household waste water and roof catchments, small livestock production, nutrition education and cookery demonstrations, food preservation, women friendly time saving and energy efficient technologies such as fuel saving 'Jikos', fire-less cookers, tea cosies and water jars. All these activities, particularly, the introduction of appropriate new technologies were targeted at women and have resulted in reducing their workloads, saving time and improving the level of food security for the households.

**Group Development:** Beneficiary participation was through group formation, registration and development. Groups were formed, based on common social and/or economic interests. This approach allowed for the sharing of responsibility in the management of group resources and other resources availed through project intervention. At the time of project completion, four types of groups had been formed, registered and were operational as per the standards of Department of Social Services (DSS) requirements. These included: - (271) agricultural extension groups, (23) health groups, (206) water users associations and (607) savings and loans groups. These groups had different objectives but in some cases, some members belonged to more than one group.

**Institutional Strengthening:** Under this component, a District Planning Unit/ District Information and Documentation Centre (DPU/DIDC) was constructed and completed as planned. The DPU houses the offices of

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<sup>1</sup> Due to poor Project MIS, this figure may not be exact.

<sup>2</sup> Originally, the project was designed to close in December 1999. The Final Evaluation (1998) recommended for a 2 years extension (to December 2001). The second 6 months extension was later granted to allow time to pay for supplied water equipment and prepare the Project completion report.

DPO, DDO and DSO. It has a library (DIDC) and a conference hall. Offices of DPO and DDO have been provided with necessary equipment (vehicles, computers, faxes, photocopiers, etc), which have improved implementation and coordination. Project monitoring and evaluation was however, weak and the documentation of project activities, achievements and effects were unsatisfactory.

Under all components, training of beneficiaries was a key priority in planning, implementation and management of the project. An extensive training was provided to health workers, WUA management teams, home economics groups, other beneficiaries and project staff. This had positive effects on awareness creation and increased beneficiary participation. This capacity building is a key factor in ensuring project sustainability, as expounded by beneficiaries during the beneficiary participatory project completion workshop (See beneficiaries own reports in Annex X).

#### 1.4 Executive Summary

The NDAP's overall goal was to introduce measures that would reduce mortality, morbidity and improve the general well being of the rural poor in Kieni East and West Divisions. The project was a pilot project with its origin from similar initiatives of a 1985 BSF support to Siaya Farmers' Community Services Project whose design was modified to test BSF's approaches in a semi – arid environment with different socio-economic situations. The focus of the project was to improve nutritional standards and food security by activating micro-economic factors that stimulate sustainable food production and productivity. The project was to promote policies, which offered the local communities the opportunities to take charge of their own development initiatives by adopting a participatory project cycle management to enhance project sustainability.

The project cost at design was estimated at USD 4.3 million out of which BSF through IFAD provided USD 3.5 million towards the project while the GOK provided USD 0.79 million. UNOPS was appointed as a Cooperating Institution to provide project supervision and loan administrative services to the project. The project had initially 5 components that consisted of: Primary Health Care, Sanitation and Water (57% of base costs), Institutional Support (12% of base costs), Agricultural and Irrigation Development (22% of base costs), Group Development (3% of base cost) and Special Financing Facility (6% of base costs). In the middle of the project period (1995/1996 FY), the financing agreement was amended and the economic component of the project (Agricultural and Irrigation Development and Special Financing Facility) were cancelled leaving the project to concentrate exclusively on the social components of Health, Sanitation and Water, Institutional Support and Group Development. Because of the consideration for the nutritional aspect, the Home Economics activities were retained. The project benefited from an extremely high beneficiary support because most of its activities were built on beneficiary identified needs and priorities.

##### 1.4.1 Summary of Project Description

The original project design consisted of the following components: -

**Agricultural and Irrigation Development:** The objectives of this component were to raise food production and incomes through (a) strengthening of district services for improved irrigated agriculture and agricultural production; (b) improvement and rehabilitation of about 5 permanent intake structures and installation of main canal piping for 6 irrigation schemes providing a total expanded area of about 300 ha to reach 3000 target group families; (c) strengthening extension services of MOA under the National Extension Project II (NEPII) and providing additional support for irrigated and rainfed agricultural production through supply of transport facilities using hire-purchase scheme and other equipment and goods at divisional level; and (d) developing adaptive research and demonstrations for rainfed agricultural production.

The agricultural and irrigation component underwent major design changes during implementation. Livestock sub- component was not part of the original project design, but was later included into project activities during grant negotiations as part of on-farm income generating activities. Later, at project's Mid Term Review (MTR) of 1996, amendments were made to the financing agreement and later adopted during the same year by the Country Portfolio Review Mission (CPRM) where the irrigation development component was cancelled but allowed for the completion of all on-going outstanding works. Within the same amendment, the Home Economics sub-component on Agricultural Extension was retained due to the nature of its activities, which were related to the improvement of the nutritional status of the target groups. Other sub- components, which were cancelled, include input supply and adaptive research

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**Health, Sanitation and Water:** This component covered: -

- Strengthening of the existing integrated and comprehensive community-based Primary Health Care (PHC) programme in accordance with WHO and MOH guidelines, based on development of Village Health Committees and related health units;
- Incorporation under PHC of a concerted family planning programme in collaboration with the Recipient and the United Nations Fund for Population Activities;
- Promotion of improved nutrition through a Joint Programme directed by the District Health Team and involving MOH, MOARD and MHAHS; the programme was to be based on an outcome of a joint nutrition study at household level;
- Rehabilitation and construction of about six first contact level health units; and provision of equipment and transport facilities for their operation;
- Training of Community Health Workers (CHW) and Traditional Birth Attendants (TBA);
- Promotion of good sanitation practices and support for the construction of about 600 simple low-cost ventilated improved pit latrines;
- Support for rural water supply through the improvement of six gravity fed schemes with full community participation and based on the District Water Development Plan; and
- Strengthening the organisation of the Health Information System flow from community to national level, including growth monitoring.

**Institutional Support Development:** This comprised strengthening of district level DFRD institution infrastructure including the offices of the DDO and DPO, and the construction and equipping of a DIDC. It also involved support for headquarters operations of all participating Ministries/Agencies and to provide for adequate supervision, monitoring and evaluation of the project components.

**Group Development:** The role of this component was that of preparing the beneficiaries for project interventions and enhancing community participation and ownership of development interventions to ensure sustainability. It involved promotion of and assistance to water users associations, village health committees and groups for farming and off-farm enterprises. The Department of Social Services (Headquarters and District) was also earmarked for strengthening to facilitate the promotion, registration and training of beneficiary groups.

**Special Financing Facility:** This component aimed at providing a Special Financing Facility to support self-help economic and social development, including smallholder group credit and input supply. This was to focus on promotion of income generating activities, procurement of specialised equipment or training for which there was no budgetary provision under the other components. However, during the MTR of 1996 the component was cancelled.

At the design stage the project was expected to be completed by 30 June 1999 and close in December 1999 but was granted an extension of 2 years following recommendations by the IFAD Project Evaluation Mission of December 1998 and subsequent request by GOK.

During the Project Evaluation (1998), the mission found "*some aspects of the project were impressive, especially the health component, home economics activities and beneficiary participation.....*". The mission made two principal recommendations, that (1) the project be extended by a period of two years in order to consolidate what had been achieved and utilise the balances of grant resources (which were estimated at 59%), and (2) examine the case for further IFAD's commitment to the project area within a defined framework for intervention in Kenya's dry lands. Consequently, the project was extended by two years, to close in December 2001. By the end of this extended period, it also happened that the project was processing huge procurement of pipes and fittings for water schemes and a six months extension was further granted up to June 2002 to allow the project (1) pay for pipes and fittings, (2) prepare a Project Completion Report, and (3) undertake a Project Impact Study.

The second recommendation led to initiation of the Central Kenya Dry Area Project (CKDAP) that became effective in July 2001. It covers the districts of Nyandarua, Nyeri, Kirinyaga, Maragwa and Thika. It is designed on the principle of poverty alleviation and its focus is to strengthen and replicate positive lessons learnt from NDAP while addressing the weaknesses encountered.

### 1.4.2 Implementation Results

The overall outcome of the project is satisfactory. The Health and Water Components achievements were impressive. In water, for example, the original target of providing 3,300 households with safe drinking water in order to reduce water borne diseases and time spent in search of water (5hrs) was surpassed and 4,000 households have domestic water supply. A lot of high value horticultural crops e.g. tomatoes, French beans, onions, snow peas and vegetable, among others, were introduced through private sector initiatives and this significantly increased incomes of the target communities. Most of these households currently spend less than ½ hour looking for water and have more time for other productive activities. Similarly, the original objective of reaching 50% of the population with a comprehensive and integrated Primary Health Care Services has been surpassed and 90% of the population have physical access to an efficient health care service.

The initial project target to construct 3 new dispensaries and rehabilitate 3 existing ones was achieved. All the dispensaries introduced appropriate community health care programmes and initiated a financing mechanism through cost sharing to ensure sustainability of the health facilities. The facilities are managed by elected community leaders. 15% of the cost sharing proceeds are earmarked for PHC training. Drug shortages are very rare in the dispensaries operating within the project area as a result of introduction of this community managed cost sharing. This has shown that the poor can effectively participate and contribute to their own health programmes. This concept of cost sharing has been expanded to cover all the facilities in the district. The overall positive impact of the health component has been derived from the composite package of improvement in water supplies and agricultural production that have reduced diarrhoea and skin diseases, improved sanitation and diet. The main weak points in the implementation of PHC has been the weak Health Information System and high drop out rates of the CHWs because of lack of incentives to compensate for their voluntary work.

In Group Development, the project has succeeded in providing an enabling environment for the community led participatory development. The project's aggressive community empowerment programme has been its main building block for economic and social empowerment and creation of sense of ownership of the development interventions. The various types of training provided to groups have successfully improved their planning, implementation and managerial capacities. Beneficiary participation in the project in terms of labour, cash and material contributions has been substantially high as indicated in Annex VII, Appendices 2 and 3. Beneficiary management groups are now responsible for control and management of all health facilities, water schemes, farming groups, savings and credit schemes and are responsible for maintenance and operations.

The project investment in nutrition activities through the Home Economics and Primary Health Care components have improved levels of household nutrition and food security. However, inadequate and ineffective M&E system has made this difficult to quantify. It has been recorded that there has been a decrease of underweight children below 5 years from 19.3% in 1991 to 5.3% in year 2001 as a result of improved diet. Adoption of kitchen gardens and smallstock increased from 40% to 85% during the project period. Knowledge on environmental conservation and management has greatly improved as well as sustainability of the project. However, the project experienced several major constraints that impacted negatively on project implementation and achievement of objectives. These included delayed issuance of AIE; poor flow of funds to the district; mismatch between AWP/B, printed estimates and actual allocations to the project; severe liquidity problem at the district treasury; poor financial documentation; changes in the project design; delayed procurement of essential equipment and instruments; and high project staff turnover.

## 2.0 ASSESSMENT OF PROJECT IMPLEMENTATION

### 2.1 General Background

#### 2.1.1 General Policy Trends in Kenya on Poverty Alleviation

Poverty alleviation has been a government priority development objective since Kenya's independence in 1963, as evidenced in the Sessional Paper no. 10 of 1965 on "*African Socialism and its Application to Planning in Kenya*". This was a time when government emphasized on the need to bring the poor and the disadvantaged groups, and regions in the mainstream of planning and development. The early years of independence were characterized by high GDP growth rates (6.6% between 1964-73) mainly due to increased agricultural production, expansion of the manufacturing sector and adoption of import substitution strategies, rising domestic demand, expanding of the regional markets, and increased donor support for the newly independent state. Despite government commitment and efforts in policy support measures, high incidences of poverty and unemployment still prevailed and the percentage of people living below the poverty line has substantially increased.

The 1970s experienced oil crises that led to sharp increases in petroleum prices which almost brought to a halt the impressive growth rates except for unexpected 'coffee boom' in 1976/77 that saw GDP grow to 8.2% in 1977.

During the 1980-90s, the government laid emphasis on employment expansion and productivity enhancement aimed at increasing the incomes of the poor. The economy experienced a period of major macroeconomic imbalances leading to the introduction of structural adjustment policies. The situation was worsened by drought, world recession and international debt crisis. To address these problems the government liberalised the economy in line with structural adjustment policies.

The government further formulated the National Poverty Eradication Plan (NPEP) in 1999, which provided a national policy and institutional framework for tackling poverty, currently afflicting about 56% of the Kenyan population. The NPEP interventions are based on three major components: a Charter for Social Integration, that sets out the rights and responsibilities of all development entities, and sets an enabling environment for pro-poor growth policies; Improved access to essential services by low income households that currently lack basic health, education and safe drinking water; and a strategy for broad based economic growth. The long-term policy objectives are been implemented through the short-term 3-year Poverty Reduction Strategy Paper (PRSP)/Medium Term Expenditure Framework (MTEF) process. In preparation of the PRSP a consultative and participatory approach to planning has been emphasized, giving a voice to the poor majority and enhancing ownership of emerging development activities. The current 2002-2008 National and District Development Plans take due cognisance of poverty and its manifestations as articulated in the Plans theme of "*Effective management for Sustainable Economic Growth and Poverty Reduction*".

#### 2.1.2 General Policy Trends in Kenya on Agriculture Development.

Agriculture continues to be the main driving force of Kenya's economy. It is the lead employer accounting for 70% of the labour employment, a major player in poverty eradication and contributes about 30% of GDP. It also provides 70% of the raw materials used in the agro-industrial production and it is a main source of government revenue. The PRSP has identified stimulation of growth of the sector as a key strategy in addressing issues relating to poverty reduction. The sector recorded high growth rates in the 1960's and 70's (5%) but this has declined in the 1990's (1 – 2%) due to globalization and declining terms of trade for primary commodities in the international markets.

Until recently (1990's), the government lacked any agricultural and livestock production policy. However, with the changing social economic and agricultural sector reforms, the structural adjustments programmes deliberately liberalized input supply and marketing of agricultural produce, which necessitated review of the agricultural sector.

The Government has initiated long-term agricultural policy reforms as indicated in several policy documents such as the Kenya Rural Development Strategy (KRDS), the Poverty Reduction Strategy Policy Paper (PRSP) and the National Agriculture and Livestock Extension Policy (NALEP). The KRDS provides a framework from which investment in agriculture can emanate. It aims at attaining a widely shared growth objective of increasing

agricultural productivity and expansion of off-farm enterprises leading to more employment opportunities. It also proposes an institutional reform process aimed at promoting private sector investment in agriculture, and rural area development programmes that help reduce vulnerability of the resource poor households and strengthen their participation in decision making. The PRSP defines the strategies to address poverty and food insecurity while the NALEP sets strategies to provide a more demand driven approach to agricultural extension with, emphasis on the need for collaboration among participating development partners, and improving efficiency and effectiveness of extension delivery, among others.

### **2.1.3 Project Target Group and Focus**

The project's target group comprised of people living in Kieni East and West Divisions of Nyeri District who were most at risk from hunger, malnutrition, ill health, low incomes (i.e., below poverty line), and experienced general low quality of life. The target group also comprised of population with insufficient access to health care and safe drinking water facilities with families headed by women being given special attention. The total number of beneficiaries who were targeted to benefit from the various project interventions were estimated at 12,000 households or about 72,000 individuals, i.e. about half of the population of both divisions at time of design. In terms of outputs and impact, the project was expected to result in improved health status both prophylactic and curative of about 10,000 families (60,000 individuals), improved domestic water supplies to about 3,300 families, increased food production resulting from increased productivity and expanded irrigated areas on 300ha. of land catering for 3,000 families. The economic rate of return at appraisal was estimated at 14%. The calculation included indirect benefits from incremental agricultural production and the inputted social benefits in terms of timesaving resulting from improved health care and domestic water supply. Unquantified benefits were anticipated to include more effective district administration and beneficiary organisations, and adoption of environmentally sustainable farming practices. About 3,000-targeted women, as individuals or in groups were expected to take advantage of the credit facility during the initial project period.

During the process of project planning and implementation, there were no clear selection criteria for activities and implementing officers did not objectively document their selection of sites and groups. However, according to the beneficiary assessment, the project benefits have largely benefited the project's original target group.

### **2.1.4 Instruments of Targeting**

In the project's Final Design Paper (FDP), it was noted that clear identification of target group by the at "risk" criteria was constrained by a number of factors – predominantly non availability of reliable data on social and income parameters in the project area. It was therefore recommended that a Baseline Survey be undertaken at the start of the project. The Baseline Survey and subsequent clear monitoring would make a more thorough identification of the rural poor to ensure that project initiatives reached the most disadvantaged sections of the target population. However, the survey was carried out in the 4<sup>th</sup> year of the project but failed to be relevant to the project needs. Without a Baseline Survey and effective Monitoring and Evaluation System being put in place, actual targeting at implementation stage was greatly hampered but not entirely lost. Observations and discussions with beneficiaries indicate that project benefits have reached the poorest sections of the community. Mechanisms in health care, for example, allow the very poor to access medical care by exempting them from cost sharing. Home economics and nutrition activities are mostly concentrated in poor localities. The Domestic Water Supply has also had more impact in this dry area. However, there are cases where more extraction of water by some sections of the community has been reported, but by-laws have been designed to address such problems and this issue of equity in water use has been effectively addressed in the last 2 years.

Due to the multifaceted causes of poverty, the project design adopted a multi-sectoral approach to addressing poverty in the divisions and used DFRD guidelines to enhance targeting, promote beneficiary participation and intersectoral collaboration, and strengthen local development institutions to ensure sustainability of interventions. The project design had incorporated intersectoral approach to issues where sectors were to work together in a complimentary way through joint planning and implementation. The poor financial flow to the district, liquidity problems at the District Treasury, cancellation of key economic component in 1995/1996 (Agriculture and Irrigation Development and Special Financing Facility) all contributed to weakening the operational framework of the project's multi-sectoral interventions and reduced its potential impacts.

The project's strategy of reaching its target groups was through various forms of groups viz Health Groups, Savings and Credit Groups, Water Users Associations, Farming Groups and others. Group based approach was

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seen as being more cost effective and sustainable in that it allowed for pooling of resources thus minimising the 'risk' through sharing of benefits/loses and enabling use of simplified management and enhanced negotiation capacity. This design feature has been very effective in eliciting beneficiary participation and ensuring local sustainability of interventions promoted by the project.

The project recognizes women as full partners and put more emphasis towards those activities where women are the majority. Most of the activities supported and promoted by the project are geared towards women who are more active and reliable partners.

## **2.2 Project Components and Outputs**

### **2.2.1 Primary Health Care**

The major objective of this component was to reduce morbidity and mortality among the most disadvantaged sections of the rural population particularly the women and children who were most at risk. This was principally due to the low levels of hygiene and sanitation, infectious diseases, and malnutrition in the project area. The component was designed to develop PHC services in accordance with WHO and MOH guidelines. Activities supported through this component were aimed at the establishment of a comprehensive and integrated community based Primary Health Care Programme that would sustainably improve the level of health care provided to the target groups. The core activities of this component, which accounted for 57% of the project's base cost included: -

- Improving Primary Health Care through construction of 3 new facilities and rehabilitating 3 others and equipping them. These facilities were to provide preventive, promotive and curative services at the first level of health contact, reduce the infant and under five mortality and morbidity rates, reduce severe and moderate malnutrition in children under five years, reduce fertility rates, increase accessibility to basic health services to 50% of the population over the project period. This also involved procurement of drugs and supporting community initiatives in establishment of Bamako Initiatives;
- Supporting reproductive health by supporting Family Planning Services and referral system from the community to various levels of health care, safe motherhood, child survival and health education relevant to the target groups. This included construction of maternity units in some of the facilities supported by the project;
- Strengthening of the institutional capacity of the Ministry of Health to implement the PHC programme through training of Community Based Health Workers (CHWs), Traditional Birth Attendants (TBAs), intersectoral training committees and staff of health facilities (Health Facility Management Committees, DHMT) to enable them to disseminate health messages relating to primary health care;
- Promotion of better nutrition through health education. This involved extending and improving cultivation of vegetable and pulses and was to be carried out as an integrated programme involving DHMT, Agricultural Extension and Home Economics, Water, Department of Social Services and relevant NGOs;
- Promotion of good hygiene and sanitation practices through support for the construction of about 600 simple low-cost VIPs. These were to be constructed at the homes of the CHWs, TBAs and health units and were meant to provide the demonstration effect necessary for the expansion and improvement of sanitation;
- Improvement of Health Information System from the grassroots to the national level; and
- Institutional support to the Ministry of Health through provision of 2 vehicles, 3 motorcycles, office and health facility equipment and 174 bicycles for CHWs, TBAs and health unit staff as well as operating costs. There was also to be a comprehensive support to the MOH Headquarters PHC Unit, which was charged with the overall technical coordination of the component.

**Implementation Results:** Under the PHC the project achieved its set targets. Four health facilities and staff houses were constructed at Wendiga, Gakawa, Kiamathaga and Burguret. All these are operational. Three old health facilities (Naro-moru, Warazo and Bellevue) were rehabilitated and Maternity units added at Naro-moru and Bellevue while a room was rehabilitated for similar use in Warazo. Warazo is a health centre while the other two are dispensaries. This has improved physical accessibility to basic health services and now 90 % of the population walk less than 8km to the nearest health unit as compared to 12km before the project. The project has similarly provided an extensive training programme to a large number of health workers and beneficiaries in the project area and there exists a strong intersectoral team of trainers with relevant expertise in the fields of PHC, nutrition education, training curriculum and control of endemic diseases in the project area. Most of the health

### **2.2.2 Domestic Water Supply**

The Domestic Water Supply component was designed and implemented with full community participation. The project target was to construct 6 gravity water schemes and strengthen MOWD technical services through provision of one new and one rehabilitated 4-WD vehicles. The six gravity water supply systems were targeted to provide improved water supply to about 20,000 users or 3,300 households.

The project had also planned for preparation of a District Water Development Plan (DWDP), which would provide: (i) detailed assessment of water resources; (ii) an inventory of existing supplies; and (iii) a comprehensive programme of water development for the district. The aim of DWDP was to facilitate district authorities in making rational use of both water resources and funds for their development, in accordance with DDC priorities.

**Implementation Results:** A total number of 21 Domestic Water Schemes were started with 12 completed, 6 partially completed and 3 on-going. The total number of households connected is 4,000. It is expected that when all the schemes are completed and commissioned, 10,445 households will be connected, serving a total population of over 80,000 people. This component suffered in budgetary mismatch between the AWP/B, Printed Estimates and actual allocations as a result of poor financial management.

Each water scheme has its own community elected Water User Association formed as a condition of financial support from the project. All the WUAs have received training. The standards of management of their associations are high. As a result of the high priority given to water projects beneficiary contribution in cash, materials and labour were high and this explains the high number of projects completed. Beneficiary contribution average 50% of total project costs as compared to the original project expectation of 15%.

### **2.2.3 Agriculture Production**

Agricultural production was a major component at the initial project design, with the main objectives identified as follows:-

- Raising food production, incomes and well being of the target population through increased agricultural production and productivity; and
- Promotion of agricultural techniques that would protect the environment.

These were to be achieved through

- Rehabilitation of 5 intake structures and main canals for 6 irrigation schemes providing a total expanded area of 300 ha with assured water supplies for 3000 target group families. Farmers were to contribute labour and cash for extension of schemes and maintenance of canals;
- Extension support for irrigated and rain-fed agriculture. The project was to strengthen extension services for irrigation development and promote rain-fed agriculture;
- Adaptive research. To make adaptive research and demonstration component more effective and focussed on farmers' problems, an initial data collection exercise was to be undertaken. This was to include: Farm Topology, Group cohesion, extension packages and constraints hampering adoption.

Institutional strengthening for extension under the project was to include supply of 3 motorcycles to staff in the divisional offices, 2 vehicles in the district plus requisite equipment to improve project supervision, implementation and monitoring. The transport for extension staff was to be made available under a scheme of hire purchase.

**Project Design Changes:** The agricultural component underwent many design changes during implementation. Livestock component was not part of the original project design, but was later included into project activities during grant negotiations as part of on-farm income generating activities. The component was implemented together with irrigation development and agriculture extension and adaptive research. Later, at project's Mid Term Review of 1996, amendments were made to the financing agreement and later adopted during the same year by the Country Portfolio Review Mission where the irrigation development component was cancelled but allowed for the completion of all on-going outstanding works. Within the same amendment, the Home Economics Sub-Component on Agricultural Extension was retained due to the nature of its activities, which were related to the improvement of the nutritional status of the target group. Since then Home Economics

formed the basis of the Ministry of Agriculture's participation in project activities. The Agricultural Component therefore altered its objectives and refocused its attention to home economics whose specific objectives included:

- Improvement of household food and nutrition security through promotion of on-farm and off-farm Income Generating Activities;
- Promotion of consumption of indigenous/drought tolerant crops;
- Promotion of appropriate diet utilizing locally available foods;
- Development and dissemination of appropriate technologies that ease women's workload; and
- Reduction in pre and post harvest losses.

The Home Economics Sub-Component focused mainly on women groups and in line with the above objectives, the activities carried out included: promotion of kitchen gardens and small livestock; nutrition education accompanied by cookery demonstrations; preserving of vegetables by drying; making of jams and juices to preserve fruits. These efforts have promoted use of improved and appropriate devices that are labour and time saving. These include energy saving 'jikos', fire-less cookers, tea cosies, water jars and household water tanks, among others.

**Implementation Results:** In 1995/1996, the project had managed to complete partial rehabilitation of 2 gravity fed irrigation schemes namely; Narumoru Aguthi and Lamuria to the extent of 85% and 70% respectively. Out of the targeted 300 hectares, only 98 hectares had been put under irrigation. The two schemes were later completed (year 2000) through the domestic water supply component. The schemes are benefiting 750 and 250 farm families respectively. Consequently, horticultural export crops have been introduced as a result of which the land value in the schemes area has increased thus attracting more settlement.

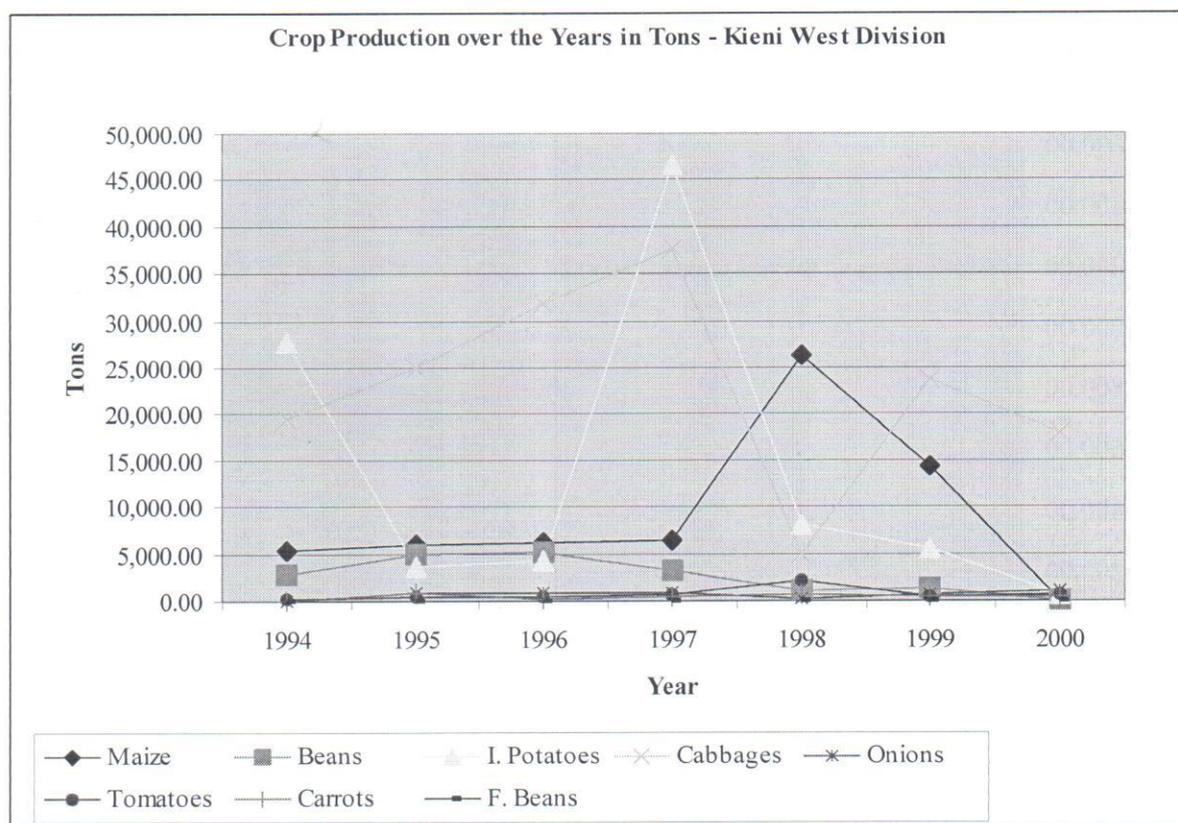
About 80% of households as compared to 50% at design have adopted various appropriate energy saving technologies. Improved on farm food processing, storage and preservation have contributed to increased food security. There is evidence of empowerment of women resulting from income generating activities e.g. making of food warmers, energy saving stoves and improved recipes using low cost, cheap and locally available materials. Tea cosies and fireless cookers are some of the food warmers that have largely been adopted. Interviews and interaction with beneficiaries show that about 75% of energy is saved during the use of fireless cookers. Women groups also acknowledge that out of the initial three loads of wood fuel required to make a meal in the three stone traditional stove, the "Kuni Mbili Jiko" only require one load of the same amount of fuel. Women are therefore able to spend more time on group projects, which generate income both for group and individual household. More time is also availed for children and home management. About 85% of households have adopted kitchen gardening. In addition to improving family nutrition, the kitchen garden has to a small scale served as a source of income of about USD 10 monthly. It was also observed that women have adopted new consumption habits and are practising the recommended nutritional practices.

Prior to the cancellation of extension component, a number of livestock development programmes had already been established. These included the cockerel exchange programme, dorper ram exchange and apiculture. In the cockerel exchange programme, a total of 1,388 pullets were exchanged. Many farmers also became aware of the need for high quality breeds. The galla buck exchange programme produced a total of 300 off springs from 16 bucks, whereas the exchange of 41 dorper rams produced a total of 2,000 off springs. These programmes were sustained by the groups themselves and are currently on-going. For the purpose of maintaining high quality breeds, the sires are rotated within and amongst the groups. Most farmers have adopted apiculture as an income generating activity. An addition of five apiaries and 96 individual beehives has been established.

**Table 1: Crop Production Over Years (in Tons)- Kieni West Division**

	1994	1995	1996	1997	1998	1999	2000
Maize	5,247.00	5,924.00	6,220.00	6,418.00	26,280.00	14,213.00	62.00
Beans	2,800.00	4,836.00	5,174.00	3,248.00	1,104.00	1,240.00	58.00
I. Potatoes	27,800.00	3,600.00	4,284.00	46,517.00	8,218.00	5,620.00	583.00
Cabbages	19,408.00	24,900.00	31,805.00	37,600.00	4,960.00	23,820.00	18,000.00
Onions	38.00	848.00	814.00	912.00	196.00	666.00	1,048.00
Tomatoes	171.00	400.00	380.00	742.00	2,190.00	464.00	672.00
Carrots	76.80	780.00	298.00	412.00	704.00	455.00	352.00
F. Beans	2.40	2.40	2.00	15.50	23.20	16.00	19.50

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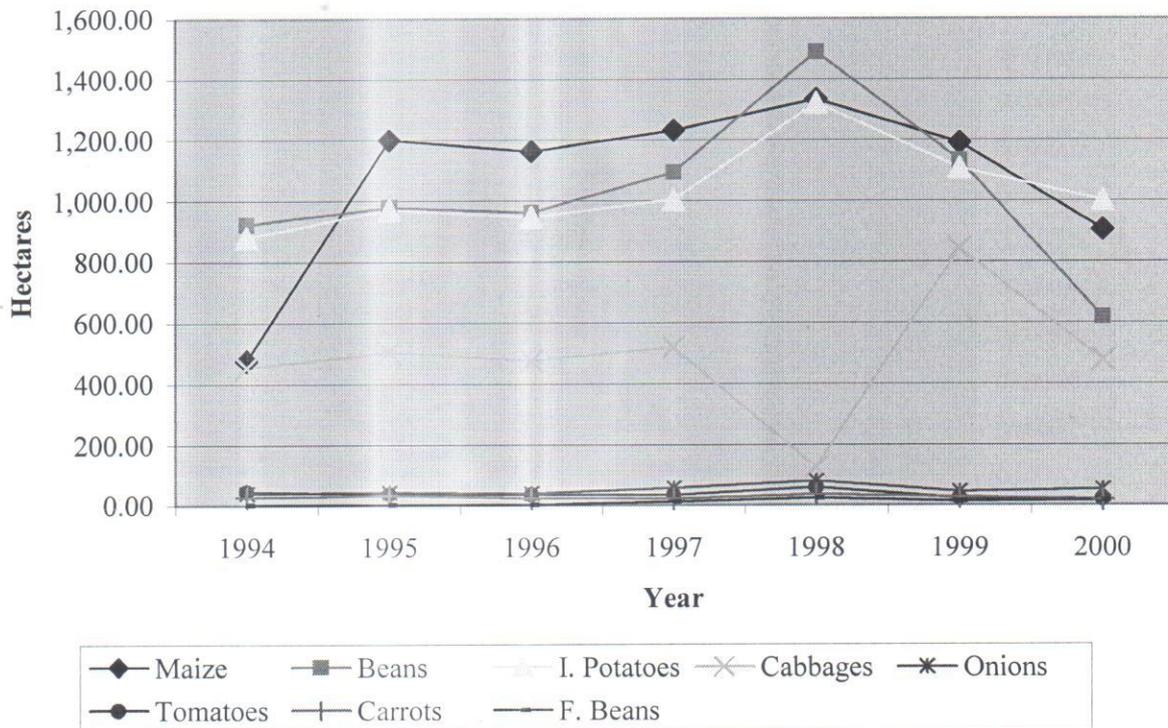
**Notes**

- Despite drought most crops show positive trend due to production using irrigation water
- The high production between 1997 – 1998 was due to the El Niño rains which were followed by drought
- French beans were a new crop and the production was still low.
- Beans did not do well with the El Niño

**Table 2: Crop Production (Tons per Hectares) Over Years - Kiwi West Division**

	1994	1995	1996	1997	1998	1999	2000
<b>Maize</b>	475.70	1,199.19	1,161.90	1,230.76	1,331.98	1,190.28	904.85
<b>Beans</b>	923.00	978.90	961.50	1,093.10	1,489.80	1,133.20	617.40
<b>I. Potatoes</b>	880.90	971.60	947.40	1,004.00	1,320.60	1,107.20	1,001.60
<b>Cabbages</b>	452.30	504.40	476.90	518.20	125.50	843.30	476.90
<b>Onions</b>	40.40	42.90	39.68	56.68	79.40	44.90	53.00
<b>Tomatoes</b>	44.90	37.20	35.30	33.10	59.10	23.50	20.20
<b>Carrots</b>	26.70	31.60	23.48	21.50	35.60	27.10	17.80
<b>F. Beans</b>	0.81	1.01	1.00	10.12	23.50	12.90	15.50

**Crop production over Years in Hectares - Kieni West Division**



**Notes**

- Food crops mainly Maize, beans, irish potatoes are given more area as most of it is rainfed
- Cabbages are mainly rainfed and irrigated.
- Area under irrigation is very low and hence horticultural crops occupy a very small percentage of total area
- There is a general trend of increase in area under crop as more land is opened. However after 1998, a severe drought caused a sharp decline in area put under crop.

**2.2.4 Group Development**

The group development component consisted of two sub components covering Group Services and Special Financing Facility. The total component was 6% of base costs (USD 0.7 million). The project, through the group development aimed at providing comprehensive support to DSS staff training and orientation, supervision, monitoring and evaluation in the context of group development policy. In the district, the Department of Social Services was to be strengthened to operate within the group development policy and be provided with the essential transport (4 motorcycles and 20 bicycles), equipment and incremental operating costs. The motorcycles were converted into 1 vehicle.

The DSS had the overall responsibility of organising and mobilising the communities, a process that entails awareness creation, sensitising and organising task oriented groups for them to understand and effectively play their role in project planning, implementation and management. This was done through community group formation, registration and development. In accordance with the project design, the DSS was to promote and assist Water Users Associations, Village Health Committees and groups in farming and off-farm enterprises. The targets were given in the financing agreement as:- promotion of 5 groups for village water supplies, 6 groups for small scale irrigation, 100 groups for savings and credit schemes, and 328 groups for farming and off-farm enterprises.

The component’s objectives stresses the need to: strengthening the capacity of the grassroots staff for both the DSS and other technical departments to provide effective services for group development; strengthening the community and beneficiaries’ capacity to enable them participate more effectively in the projects and other

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development activities; assisting technical ministries in the promotion of the groups for development of water resources, health facilities, credit and rural enterprises; and strengthening the professional capacity of the district staff of the Department of Social Services.

**Implementation Results:** The project's implementation approach was based on groups, which had common social and/or economic interests. This approach allowed the sharing of responsibility in the management of group resources and other resources availed through project intervention. As an approach to project implementation, four types of groups were formed and registered. These were: (i) Agricultural Extension Groups (271), (ii) Health Groups (23), (iii) Water Users Associations (206) and (iv) Savings and Loans Groups (607). The department sensitised communities in public forums on the need to venture into savings and credit. This led to many groups being registered and working with community based organisations within the district e.g. PEP, WEDI, K-REP, KWFT, Faulu Kenya. However, the greatest achievement of this exercise was that farmers came up with their own savings and credit umbrella organisation called Kieni Revolving Fund (KIREFU) where farmers are obtaining affordable loans. These categories of groups had different membership but in some cases members belonged to more than one group.

The DSS managed to register a total of 1,207 active groups with a membership of 12,500 persons from the vulnerable lot especially, women and youth. All these groups operated bank accounts, as this was a pre-condition for registration. Beneficiaries and community leaders were trained in management and leadership skills, group dynamics, book and record keeping, formulation of constitution and by-laws, cost sharing and general beneficiary participation. This enhanced their understanding of project expectations and therefore provided basis for sustainability.

### **2.2.5 Coordination and Institutional Support**

Institutional Development Support<sup>3</sup> refers to the strengthening of the district level DFRD infrastructure including offices of the DDO, DPO, construction and equipping of the District Information and Documentation Centre (DIDC) and support of Headquarters operations of all participating Ministries/Agencies and providing adequate supervision and monitoring and evaluation of project components.

The overall project coordination was the responsibility of the National Steering Committee (NSC)<sup>4</sup>. The committee was required to ensure that the project complied with DFRD guidelines and served as a high-level policy body. At the district level, the District Development Committee was the designated policy-making body. The Project Management Committee (PMC) composed of officials from the implementing departments, and as a sub-committee of the DDC was charged with the following project implementation responsibilities:-

- Coordination of project activities in the district to ensure that they were fully integrated into development programmes and budgets of the participating Ministries/Agencies;
- Scrutinising and approving on technical grounds, all proposed programmes;
- Ensuring that project developments complied with the relevant government sectoral policies and were consistent with targets and objectives of the project as set out in the final design report and approved AWP/B;
- Receiving and reviewing the monitoring and supervision reports of implementing ministries and agencies; and
- Technically approving the AWPB and submitting them to the DDC for review and approval.

**Implementation Results:** The DPU/DIDC was constructed and completed as planned. It houses the offices of DPO, DDO and DSO. It has a library (DIDC) and a conference hall. Offices of DPO and DDO were provided with necessary equipment (vehicles, computers, faxes, photocopiers, etc), which facilitated the implementation of the project. The DIDC has enhanced planning facilities in the district and serves as the district reference point. Both Government and Non Governmental Organisations use the conference hall for meetings, trainings, etc.

The user capacity of the DIDC is approximately 40 users at a time while the document capacity is 7,000 publications. A variety of information has been collected including government publications, development

<sup>3</sup> In the Final Design Paper, Institutional strengthening refers only to the District level. The Financing Agreement however, includes the Line Ministry headquarters.

<sup>4</sup> The Committee was chaired by the Permanent Secretary, Ministry of Planning and National Development and its membership consisted of representatives of not less than Under Secretary level of the line Ministries.

reports, annual reports, technical manuals, handbooks, statistical abstracts, development estimates and expenditure reports, and technical information on development projects. As was intended, the centre has served as a source of information on development statistics, Government policies, district plans and technical information on development projects. The centre remains an important component of the District Planning Unit, serving as a Reference and Resource Centre of essential development and management information in the district. The average number of users is 40 persons monthly who mostly comprise of Government Departmental Heads, students, researchers, and teachers etc.

## **2.3 Project Organisation and Management**

### **2.3.1 Project Coordination**

The project coordination was the responsibility of the then Ministry of Planning and National Development. At the national level, the National Steering Committee was established as required in the Financing Agreement and initially met regularly. With time, the committee's responsibilities were delegated to officers who acted as project desk officers in each line Ministry. They offered technical support, advice on policy and supervision to the project. The project design required that NSC makes frequent supervision visits to project sites but with time this commitment failed and visits were only made during the annual UNOPS supervision missions.

There was no effective coordination by the Ministry of Planning and National Development due to lack of designated project staff and the skeleton staff that were involved in the coordination and management were also responsible for implementation and coordination of other projects. This led to Area Based Programmes Section at the headquarters performing poorly in M&E duties. This can be attributed to factors such as frequent transfer of officers; poorly done Baseline Survey that did not give any indicators and the limited capacity and authority of project M&E officers to direct and supervise the functioning of M&E system. An IFAD initiated monitoring and evaluation workshop, held in early 1992 resulted in publication of comprehensive M&E guidelines, leaving the final refining and introduction of the system to the project management. This never took place and the system, in real sense never took off. This failure hampered introduction of a functional M & E.

At the district level a DPO was posted to the project as required in the Financing Agreement and his office has been effective in coordinating and implementing project activities. At the start of the Project, a Monitoring and Evaluation Officer was assigned to the Project. The officer was deployed as an assistant to the DPO but was later transferred without immediate replacement. Following the recommendation of the Evaluation Team (1998), an officer was posted to the district. The District Accountant posted an Accountant to the DPO who handled finances related to the project.

The Project Management Committee was constituted as a sub committee of the DDC charged with the responsibilities of project design, implementation monitoring and evaluation. This committee performed its responsibilities satisfactorily.

**Project Budgeting and Financial Management:** Project programming, budgeting and financing, including financial and technical authority were the responsibility of the participating departments.. This provided the basis for project implementation and was the basis for systematic reporting and monitoring procedures. The project developed uniform budgeting and planning formats where work programmes and associated funding requirements were well presented. Budgets were itemised by line Ministries and fitted into their budgetary framework. Expenditures were allocated individually to each participating Ministry and Nyeri District was readily identified from the designated Vote heads. Reporting formats were also been developed. These were clear and uniform across participating Ministries. What lacked in these formats were clear linkages between budgets and planned activities. They were also not reviewed to reflect changing circumstances and lacked information on beneficiaries' contribution.

The liquidity problems experienced in District Treasury particularly in the years 1996 – 1999 reduced the project's implementation pace. At the Project's Evaluation stage (1998), the disbursement rate was 41%. The project had been designed under pre-financed arrangements such that after the World Bank and IMF suspended funding to Kenya, the project also suffered. Opening of Project District Designated Account in 2000 somehow eased the liquidity problems but the Project was approaching the end of its life span. These experiences however have been beneficial to the operations of the CKDAP.

### **2.3.2 Components Organisation and Management**

**Primary Health Care (PHC):** The coordination of the PHC component was under the MOH. The officer-in-charge of the PHC Unit at the MOH headquarters' had technical responsibility for the component design and planning and ensured that the implementation by the District Health Management Team was in full accord with the MOH's policy and guidelines. The PHC Unit's staff carried out supervision, monitoring and evaluation of the project. At the district level, the implementation of PHC activities was the responsibility of District Medical Officer of Health (DMOH) who assigned day-to-day activities to an implementing officer. The MOH ensured that the project activities were accorded full priority.

Despite the above arrangements, the PHC component had problems in terms of procurement. Procurement of health equipment and kits was delayed until year 2000. Even when it was finally done, equipment were inadequate and sometimes of wrong specifications. This hampered the project effective utilization of the health facilities supported through the project thus reducing expected benefits to the community.

**Domestic Water Supply:** The Director of Water Development in the MOWD had the overall technical responsibility for the development and implementation of water supplies. At the district level, the District Water Officer was in charge of the implementation of the component within the framework of MOWD guidelines for rural water supply. A project officer was assigned daily project responsibilities. At the grassroots level, there were water officers who worked with the beneficiaries. Collaboration with other Participating Ministries/Agencies, especially DSS ensured effective community participation in project implementation.

However, the MOWD partially developed the District Water Development Plan (DWDP). The component also suffered delays in procurement of pipes and fittings, an action that led to communities financing their own schemes more than their required ratios.

**Group Development:** This component comprised of Community Mobilization, Training and Group Support Services. The MOHAHS had the responsibility for these activities. The direct management was delegated to the District Social Development Officer (DSDO) whose task was programme planning, budgeting and supervision. The officer assisted groups through planning, budgeting and supervision, and also trained groups and offered linkages to the respective Participating Ministries/Agencies.

Beneficiary participation in planning and implementation was fostered through various types of committees (HMC, VHC, WUA, etc) which managed project facilities. The planning process was through participatory workshops, although the upward flow of activity and project proposals was not quite clear.

Annual implementation review workshops involving implementing officers, beneficiary representatives and desk officers from headquarters were held to discuss implementation progress, problems and constraints. They also reviewed actions taken on UNOPS recommendations for improvement of the project. However, no strong monitoring and evaluation of the participation process was promoted through village-based data information system using project beneficiaries to collect base data on indicators, as designed in project document.

**Agricultural Development and Home Economics:** The Ministry of Agriculture and Rural Development had the responsibility to implement this component. The Ministry appointed skilled personnel at all levels to manage the project. At the grass root level, the Frontline Extension workers (FEW) were directly in-charge of the groups in their units of work. At the start of the project, each FEW was to work with eight (8) groups which were either existing or were formed at start of the project. Many of the new groups however were short lived since their expectations of the project were not met as most of them expected to be given money directly. The Extension officers were not able to effectively work with eight (8) groups because of the distances involved and therefore the number of groups was reduced with time to six (6) per staff. The FEWs were to train beneficiaries in groups and in their own farms. The field officers were to disseminate technical messages on crop husbandry, animal rearing and home economics to farmers.

To ensure that the technical messages reached the extension groups, which mainly comprised of women, Location Extension Officers (LEOs) did follow-ups and backstopping on these groups. Together with the FEWs, the LEOs compiled the location progress reports as required. These included monthly, quarterly, semi-annual, annual and any other requested report. It should be pointed out here that toward the end of the project the post of LEO was abolished by the Government which interrupted mostly the report writing before the Divisional Extension Coordinators (DECs) could organize or device ways of having the location reports written.

The division level DEC managed the project by also doing follow-ups and backstopping and compiled the project reports. The DEC performed a big role in preparing groups for project interventions including the UNOPS Missions and any other mission. The DEC worked together with Divisional Subject Matter Specialist (Div SMSs) who are trained in various fields namely Home Economics, Livestock Production, Farm Management, Irrigation and Drainage, Soil Conservation and Horticulture. The divisional office was facilitated with a vehicle and at least one motorcycle to assist in mobility. These were maintained by the project. It should be noted however that inadequate flow of funds sometimes made the vehicle and motorcycle get grounded.

At the District Hqs level, the District Agriculture and Livestock Extension Officer (DALEO) was the AIE holder. The DALEO appointed an officer to co-ordinate the project activities and together with the other officers appointed by the other Ministries involved in the project they formed the Project Management Committee (PMC). The officer was in-charge of preparing the Annual Work Plans and Budgets every year and reviewed them whenever required. These were then forwarded to the DPO and were discussed before comparing them with those of other departments. All financial records were kept satisfactorily.

## 2.4 Project Costs and Financing

The total project cost was estimated at Kshs. 98.76m (USD 4.29m) of which foreign exchange cost was estimated at 33% (USD 1.4m). Costs excluding taxes and duties amounted to Kshs. 88.4m (USD 3.84m) and physical contingencies were provided at 5% for all costs excluding salaries. Out of USD 4.29m, BSF Grant was 82% (USD 3.50m or BSF 110m) net of taxes and duties. The Government of Kenya was to finance 18% (USD 0.79m), including taxes and duties. This proposed financing was broken further and allocated to each of the four principal components as shown below:

**Table 3: Designed Financing Plan by Component (USD and Kshs) in million**

Component	BSF Contribution (USD)			GOK (USD)	Total (USD)			Total Cost (Kshs)
	Local	FE	Total		Local	FE	Total	
<b>A. Farm and Crop Development</b>								
(i) Irrigated Crop Production	.34	.17	.51	.05	.39	.17	.56	12.77
(ii) Extension and Adaptive Research	.09	.08	.17	.04	.13	.08	.21	4.97
<b>Sub-Total</b>	<b>.43</b>	<b>.25</b>	<b>.68</b>	<b>.09</b>	<b>.52</b>	<b>.25</b>	<b>.77</b>	<b>17.74</b>
<b>B. Health and Sanitation</b>								
(i) Primary Health Care	.41	.56	.97	.33	.74	.56	1.30	29.96
(ii) Domestic Water Supply	.23	.17	.40	.14	.37	.17	.54	12.38
<b>Sub-Total</b>	<b>.64</b>	<b>.73</b>	<b>1.37</b>	<b>.47</b>	<b>1.11</b>	<b>.73</b>	<b>1.84</b>	<b>42.34</b>
<b>Institutional Support</b>	<b>.26</b>	<b>.11</b>	<b>.37</b>	<b>.05</b>	<b>.31</b>	<b>.11</b>	<b>.42</b>	<b>9.60</b>
<b>Group Development</b>								
(i) Group Services	.04	.03	.07	.02	.06	.03	.09	2.17
(ii) Special Financing Facility	.20	-	.20	-	.20	-	.20	4.60
<b>Sub-Total</b>	<b>.24</b>	<b>.03</b>	<b>.27</b>	<b>.02</b>	<b>.26</b>	<b>.03</b>	<b>.29</b>	<b>6.77</b>
<b>Total Baseline Costs</b>	<b>1.57</b>	<b>1.12</b>	<b>2.64</b>	<b>.63</b>	<b>2.20</b>	<b>1.12</b>	<b>3.32</b>	<b>76.45</b>
Price Contingencies	.06	.04	0.10	.01	.07	.04	.11	2.65
Price Contingencies	.47	.24	.76	.15	.62	.24	.86	19.66
<b>Total Project Costs</b>	<b>2.10</b>	<b>1.40</b>	<b>3.50</b>	<b>.79</b>	<b>2.89</b>	<b>1.40</b>	<b>4.29</b>	<b>98.76</b>
%			82	18				

Source: NDAP Final Design paper; Report No. 0255 – KE, December 1990 (Pages 35 – 36).

The Project Costs in the Financing Agreement, BF 110million (USD 3.50) was allocated to 5 categories i.e. civil works, vehicles and equipment, technical assistance and training, special financing facility, incremental operating costs and the balances were unallocated as shown in Table 2.

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**Table 4: Grant Allocation per Category of Expenditure**

Category of Expenditure	Amount of the Grant Allocated (BF)	% of Expenditure to be Financed by the Grant
I. Civil Works	43,680,000	85%
II. Vehicles and Equipment	11,830,000	100% of foreign expenditures, 100% ex-factory prices for locally manufactured goods or 65% of other local expenditures.
III. Technical Assistance and Training	2,910,000	100%
IV. Special Financing Facility	6,240,000	-
V. Incremental Operating Costs	20,410,000	70%
VI. Unallocated	24,930,000	
<b>Total</b>	<b>110,000,000</b>	

*Source: Financing Agreement; Grant No. BG-006-KE of May 29, 1991.*

After the CPR (1995/96), the Financing Agreement was changed with the cancellation of Agricultural Development and Special Financing Facility components. The allocation under Special Financing Facility was transferred to the Unallocated while funds for Agriculture Development were allocated to other sub-components (Home Economics included) under appropriate categories. Categories were also changed, with Incremental Operating Costs becoming Category IV, while Category V became Unallocated. Project Special Account was opened in Central Bank of Kenya where project funds were deposited and later withdrawn for project activities.

**Table 5: Expenditure Plan per Component per Year (Kshs and USD)**

Component	91/92	92/93	93/94	94/95	95/96	96/97	97/98	Total (Kshs 000)	Total (USD, 000)
<b>A. Farm and Crop Development</b>									
(i) Irrigated Crop Production	170	2523	2153	2073	2073	2048	1733	12771	555
(ii) Extension and Adaptive Research	1735	600	619	504	504	504	504	4970	216
<b>Sub-Total</b>	<b>1905</b>	<b>3123</b>	<b>2772</b>	<b>2577</b>	<b>2577</b>	<b>2552</b>	<b>2237</b>	<b>17741</b>	<b>771</b>
<b>B. Health and Sanitation</b>									
(i) Primary Health Care	8186	7256	7484	2006	1705	1766	1561	29963	1303
(ii) Domestic Water Supply	250	2393	2048	2048	1948	1948	1748	12381	538
<b>Sub-Total</b>	<b>8436</b>	<b>9649</b>	<b>9532</b>	<b>4054</b>	<b>3653</b>	<b>3714</b>	<b>3309</b>	<b>42344</b>	<b>1841</b>
<b>Institutional Support</b>	<b>4112</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>9601</b>	<b>417</b>
<b>Group Development*</b>									
(i) Group Services									
(ii) Special Financing Facility									
<b>Sub-Total</b>	<b>5598</b>	<b>194</b>	<b>194</b>	<b>194</b>	<b>194</b>	<b>194</b>	<b>194</b>	<b>6765</b>	<b>294</b>
<b>Total Baseline Costs</b>	<b>20051</b>	<b>13881</b>	<b>13413</b>	<b>7740</b>	<b>7339</b>	<b>7375</b>	<b>6655</b>	<b>76451</b>	<b>3323</b>
Physical Contingencies	481	410	394	361	346	345	319	2656	115
Price Contingencies	1828	2622	3396	2445	2805	3237	3325	19659	855
<b>Total Project Costs</b>	<b>22360</b>	<b>16913</b>	<b>17202</b>	<b>10546</b>	<b>10489</b>	<b>10956</b>	<b>10298</b>	<b>98764</b>	<b>4294</b>

*Source: NDAP Final Design paper; Report No. 0255 – KE, December 1990 (Pages 69 – 74).*

\* Allocations given under Group Development were not disaggregated into Group Services and Special Financing Facility.

#### 2.4.1 Actual Disbursement of Project Funds

Project activities in each FY started with preparation of an AWP/B, which according to the Financing Agreement were submitted to IFAD and the Cooperating Institution (UNOPS) not later than 31<sup>st</sup> March of the preceding fiscal year. No AWP/B was ever submitted directly to IFAD but the same were submitted to UNOPS for approval.

At the district level, each participating Ministry prepared its AWP/B, submitted it to DPO for compilation and submission to the MPND HQs. The project budget was included in the printed estimates according to the treasury regulations. The budget was coded and itemised accordingly to fit into Nyeri District budget under individual Ministry. This ensured allocation of expenditures to each Participating Ministry headquarters and district.

Until year 2000, the Project did not have a designated project account, as required by Section 11.08 of the General Conditions, but each participating Ministry maintained the project ledgers that were readily identifiable. At the district, project funds were channelled through District Treasury. At the beginning of the project, this did not pose any problem to the project implementation but later it became an impediment. Project activities were hardly financed despite the fact that there were annual work plans and budgets<sup>5</sup> prepared. To ease the problem the GOK and IFAD in 1999 decided to open Designated Project Account in Nyeri District that was used by all implementing departments.

The Project's Audited Reports by the Controller and Auditor General were satisfactory to IFAD. Project funds were utilised for the purpose for which they were intended and in accordance with the procedures consistent with the Financing Agreement. However, from 1991 – 1994, no audited reports were submitted to IFAD, a situation that contributed to the suspension of the entire IFAD Portfolio in Kenya for one year. There were also huge expenditures incurred using GOK funds (under pre-financing arrangements), which had not been claimed. After this, Audited Reports were prepared and submitted but occasionally later than six months after (31 March) of the following year. In 1995 IFAD and GOK agreed to hire a consultant to reconcile project books of accounts and led to preparation of Withdrawal Applications worth Kshs. 32,924,554.60. The reconciliation of accounts was also repeated in 2000 and led to the Withdrawal Applications worth Kshs. 66,487,325.21.

In summary, a total of Kshs. 265,744,505 was spent under project activities, Kshs. 229,338,416.70 claimed and Kshs. 106,849,900.63 reimbursed. Table 4 shows detailed summary of expenditure per category under each participating Ministry (Headquarters and District). More expenditure details are provided in Annex III. To maintain consistency, the categories of original Financing Agreement are adopted.

*Note however that due to poor project financial records, this figures may be different from different reports.*

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<sup>5</sup> See details under constraints on how lack of liquidity in District Treasury affected project implementation.

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**Table 6: Actual Expenditure per Component per Year**

Component	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/2001	2001/02	Total (Kshs 000)
<b>A. Farm and Crop Development</b>												
(i) Irrigated Crop Production	-	787,632	2,341,074	6,137,946	8,450,666	3,416,758	2,791,088	645,855	793,626	15,893,489	2,357,876	43,616,010
(ii) Extension and Adaptive Research		787,632	2,341,074	6,137,946	8,450,666	3,416,758	2,791,088	645,855	793,626	15,893,489	2,357,876	43,616,010
<b>Sub-Total</b>		787,632	2,341,074	6,137,946	8,450,666	3,416,758	2,791,088	645,855	793,626	15,893,489	2,357,876	43,616,010
<b>B. Health and Sanitation</b>												
(i) Primary Health Care	-	3,253,270	2,025,703	2,177,974	11,991,999	380,756	2,565,438	2,067,740	6,239,952	10,198,485	-	40,901,317
(ii) Domestic Water Supply	-	916,230	1,290,012	6,907,447	-	11,397,991	2,423,348	2,542,814	15,446,115	32,091,187	39,596,115	112,611,259
<b>Sub-Total</b>		4,169,500	3,315,715	9,085,421	11,991,999	11,778,747	4,988,786	4,610,554	21,686,067	42,289,672	39,596,115	153,512,576
<b>Institutional Support</b>												
Group Development	-	7,912,372	1,718,988	5,292,922	3,667,432	159,403	2,115,448	3,581,423	4,419,113	17,381,286	4,906,263	51,154,650
(i) Group Services	-	186,114	213,970	2,098,875	1,175,026	1,637,503	979,858	3,22,468	1,895,048	7,083,127	969,280	19,461,269
(ii) Special Financing Facility		0	0	0	0	0	0	0	0	0	0	0
<b>Sub-Total</b>		8,098,486	1,932,958	7,391,797	4,842,458	1,796,906	3,095,306	6,803,891	6,314,161	24,464,413	5,875,543	70,615,919
<b>Total Expenditures</b>		13,055,618	7,589,747	22,615,164	25,285,123	16,992,411	10,875,180	12,060,300	28,793,854	82,647,574	47,829,534	267,744,505

Source: Ministry of Finance and Planning: External Resources Department Records.

### 3.0 ACHIEVEMENT OF PROJECT OBJECTIVES

#### 3.1 Actual and Potential Utilisation of Project Services

The core objective of the NDAP was to introduce measures that would reduce mortality and morbidity and improve the well being of the rural poor in the project area. The project had five principal components, each with specific objectives that were designed to contribute to the achievement of the core objective. The specific objectives were (a) Strengthening the institutional capacity of the project district to plan, implement and monitor development in order to provide the rural populace with more responsive and effective services; (b) raising food production, income and well being of the Project beneficiaries through increases in agricultural production and productivity; (c) improving the health of the population through cost-effective primary health care, providing safe drinking water and promoting improved diet; and (d) promoting beneficiary participation in the planning and implementation of rural development projects.

The project provided funds for a Baseline Study meant to provide baseline indicators for future assessment. Although the study was undertaken (4 years later), the results had no meaningful relevance to the project and no baseline indicators were developed. Also, the results were not analysed. The assessment of the achievement of project objectives is, therefore, not compared with any established indicators. In this report, three methods were adopted in assessing the objectives: (1) direct discussion with beneficiaries, (2) beneficiaries participation workshop report (3), and observation by implementing officers.

**Strengthening the institutional capacity of the Project district to plan, implement and monitor development in order to provide the rural populace with more responsive and effective services:** This involved the construction and equipping of the DIDC that was completed and has strengthened the DPU to become a reference centre. Most officers who have worked for the project under the district have received on the job training geared to improving their ability to plan and monitor development projects. This has been effective as demonstrated in the participation of officers in preparation of Nyeri District Poverty Reduction Strategy Paper (PRSP) and District Development Plan (2002 – 2008). These documents have high quality data and analyses, and these will facilitate in project planning, implementation and initiation of poverty reduction initiatives.

Institutional strengthening also targeted promotion of beneficiary participation in the planning, implementation and management of their own projects. Discussion with beneficiaries and available records in project offices indicate that beneficiaries have received a wide range of training, ranging from group dynamics, leadership, facility management, book keeping, hygiene, community participation in project planning, implementation and monitoring etc. Visits and discussion with beneficiaries and groups show that they are now planning, raising and managing funds for their own projects.

**Raising of food production, income and well being of the project beneficiaries:** Discussion with beneficiaries, data available and observation by officers clearly reveal that there has been a significant increase in agricultural production and productivity. Domestic Water Schemes although designed for supply of safe domestic water have become multipurpose and are used for minor irrigation and livestock use. Under Domestic Water Supply, allowable irrigated land range between 0.125 – 0.5 of an acre. Approximately 4,800 households are irrigating their land under minor irrigation. There are also two gravity fed irrigation schemes (Narumoru Aguthi and Lamuria), covering about 98 hectares. Although this falls short of the targeted hectare (300 ha), the two irrigation schemes are serving about 1,000 households. There are 9 on-going domestic water projects at various stages of completion and once completed, an extra 6,000 households shall have access to water for domestic use, minor irrigation and livestock use. The demonstrated impact on benefits accruing to households with access to water has accelerated beneficiary willingness to participate and contribute to their projects. Four projects have now approached Department of Water to design dams for them to enhance water supplies from own resources.

The project area is a semi-arid land with rainfall of 500 - 800mm per year. This is less than what is required for rainfed food production. Discussion with beneficiaries reveals that crop failure before project intervention was very high. There were few dairy cows and the few that were there had poor yield. The Table 5 summaries responses on production as given by beneficiaries

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**Table 7: Household Agricultural Production and Incomes –Minor Irrigation.**

Acreage per Member Under Minor Irrigation <sup>6</sup>		Farming Activities (Crops and Livestock) in the Project Area	Harvests per acre in the Project Area		New Crops Introduced in the Area as a Result of Project intervention.	Average Harvest per ¼ acre	Income per ¼ acre (Kshs.)
Smallest	Biggest		Before project Intervention	After Project Intervention			
0.125	0.5	Maize Wheat Potatoes Beans Pyrethrum Cows (Milk) Goats Sheep	3-10 bags 3-10 Bags 10-20 bags 60 Kilos 3-6 Bags 3-6 Kilos/cow	7-20 Bags 25-60 Bags 80 Kilos 18 bags 9-12 Kilos/cow	French Beans Onions Vegetables (Cabbage) Kale, Spinach Carrots Snow Peas.	400kg 60 bags 3,000 (kg). 700kg 30-60 Bags 350kg	36,000 60,000 15,000 18,000 30,000 36,000

Source: Responses from Beneficiaries (interviews).

**Improving the health of the population through cost-effective primary health care, providing safe drinking water and promoting improved diet:** This objective was addressed through two sub-components (Primary Health Care and Domestic Water Supply). The project supplied clean water to 4,000 households (30,000 people), surpassing the target of 3,300 households. Once the on-going projects are completed, 10,500 households shall have access to domestic water supply reaching about 80,000 people. Availability of water boosted kitchen garden production (small animals and vegetables) for household consumption. Observation across project area has shown that 85% of households have kitchen gardens. This has improved the household diet. Common water borne diseases (diarrhoea, eye and skin infections, dysentery, etc) that were prevalent in the area before the project are now reported to be on the decline. There are 6 additional health facilities (3 rehabilitated and 3 constructed), which have improved access to health facilities of targeted population and reduced average walking distances from previous 12km to 8 km. Direct discussion with beneficiaries on the impact of this component is summarised in the Tables 6 and 7.

**Table 8: Primary Health Care - Prevalence of Diseases**

Prevalence of Water Born Diseases		Health Centres/Dispensaries in the Project Area		Average Walking Distances to nearest Health Facility		No. of VIP constructed in the project area	Diseases Brought by Water Supply
Before project Intervention	After Project Intervention	Before	After	Before	After		
Typhoid Diahorrea Trypanomiasis Scabies Lice Eyes Infections	Malaria Amebiosis	Public Dispensary(0) Private clinic(-) Dispensaries(10) Health centres(2)	Public Dispensary (1) Private clinic (1) Dispensaries (17) Health centres (2)	12km	8km	Design altered from VIP to serviceable latrines. 85% have serviceable latrines from 50% before the project 9 VIP constructed from the 600 VIP targeted in project design.	Malaria Amebiosis Some families don't boil water and assume it is clean.

Source: MOH Report, 2002

**Table 9: Domestic Water Household Connections**

Total House Hold Served (Connections)	Total Population Served	Sources of Water Before Project Intervention	Walking km by Beneficiaries in Search of Water				Public Institutions Served by Water Projects	Other Water Suppliers in the Project Area
			Before Project Intervention		After Project Intervention			
			Shortest Distance	Longest Distance	Shortest Distance	Longest Distance		
4,000 Target by Dec 2002 (10,500)	30,000 Target by Dec 2002 (80,000)	Seasonal Rivers Dams	1-3km	10km	0	100m	Schools (80) H/Facilities (10) Cattle Dips (48) Churches (70) Others (28)	Canadian Embassy (1) Catholic archdiocese of Nyeri

Sources: DWO Reports and Beneficiaries Discussion, 2002

<sup>6</sup> Smallest Acreage owned by farmers is 1acre and biggest is 10ha. Water is used for minor irrigation and the allowed acreage of irrigation is a maximum of 3ha.

It was evident from the discussions with the beneficiaries that their incomes have improved as a result of farm activities, which they directly associate with the project. The increase in incomes has had (from beneficiaries own confession) positive effects such as increase in school enrolment, access to health care, improved housing, clothing and entertainment and improved livestock husbandry (Artificial Insemination). Other positive effects include time saved as a result of reduced walking distances to facilities; increased employment opportunities, reduction in rural-urban migration and the increase in value of land etc.

### 3.2 Constraints to Project Implementation

The following are the main factors that hindered full realisation of the project objectives:

**Flow of Funds:** This was ranked as the main factor that affected the project implementation. The project was a pre-financed project where activities were financed through GOK resources and the same claimed from IFAD according to eligibility of category of expenditure. This problem came about as result of (i) budgetary mismatch between AWP/B, printed estimated and actual allocations, (ii) late release of A.I.Es, (iii) liquidity problem in District Treasury, and (iv) poor financial documentation.

**Changes in the Project Design:** The CPR (1996) recommendations led to changes in the project design, which saw the cancellation of Agriculture Development and Special Financing Facility components. This adversely hampered full realisation of economic aspect of the project that had been initiated under these components. The breeding programs and the bulking of seedlings for fruit trees, fodder trees, and on-farm trials for the drought tolerant traditional food crops could not continue under the new arrangements. Credit and special financing facilities were also withdrawn and inaccessibility to credit was a major constraining development issue in the project area. The amendments also did not take into account the fact that NEPII where the agricultural component was transferred was nearing closure and therefore little could be achieved within the remaining period of the project.

Another factor with regard to the amendment was the time taken to understand the adjustments. The agricultural component needed adequate time and funding to re-orient all participating parties to understand such major changes within a program. The time lag contributed to delayed implementation.

Cancellation of SFF slowed and in other cases killed efforts that were being initiated to develop local credit institutions. The mechanisms of channelling SFF funds as proposed in the project design could not easily be adopted in the GOK structure, and hence the component did not take off. These two economic components were meant to reinforce the other social components. Their cancellation definitely affected full achievement of project objective, as the design changes did not address these changes in component objective.

**Insufficient Orientation of DHMT to implementation of PHC activities:** It was the first time for DHMT Nyeri to implement a PHC component of this magnitude, and it was not quite easy for them to visualise the process and expected outcome. The concept of the communities directly managing their own health units was a new concept which had not been implemented elsewhere in the country. With no policies for guidance, the district had to come up with its own terms of reference for the health facility management committees (the policies/guidelines have been-recently developed and in the process of implementation).

For the communities to maintain their facilities, funds were required. The process of collecting these funds was to be determined by the specific communities. While some decided to introduce cost sharing in their health institutions, the DHMT was in a dilemma since there were no guidelines from the headquarters. With the support of the DDC and PMC, the DHMT okayed and supported community cost-sharing. It is in fact Nyeri Dry Area Project that pioneered the establishment of organised community cost sharing in both GOK dispensaries and health centres in Kenya.

**Procurement of essential equipment and instruments:** The PHC was the most affected component in this area. The Ministry Headquarters did not provide essential equipment and instruments despite the fact that money was being allocated every year. The Ministry HQs was responsible for procurement and the few equipment provided were inadequate and the district had to utilise the cost sharing funds to supplement this need. Procurement was finally undertaken between November 1999 and December 2000. The domestic water supply component also suffered similar problems with procurement of pipes and fitting being delayed.

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Despite the above constraints, the overall achievement of the objectives of the project was substantial. This was facilitated by the high community participation and contribution, and the extension of the project by two more years.

#### **4.0 ASSESSMENT OF PROJECT SUSTAINABILITY**

This section assesses the possibility of continuity of project activities after the official funding has ended. It looks at the mechanisms that have been inbuilt during the project implementation to address project sustainability as a whole and as individual components. It assesses the preparedness of both GOK and beneficiaries to sustain the already established facilities and services, and complete those that have not been completed.

##### **4.1 Sustainability of PHC Activities**

The beneficiaries of the health component were fully involved in the construction of the health units and this has ensured that their facilities are well maintained. All the health facilities have Health Facility Management Committees (HFMCs) trained in general facility management, preventive maintenance, financial management and book keeping. The HFMCs are registered under the Department of Social Services and manage the facilities according to their by-laws. This has proved effective and sustainability is high.

The mechanisms put in place to ensure the sustainability of PHC activities include the following:

**Costs Sharing:** All health facilities in the project area have introduced cost sharing. Each HFMC has its own fees structure originating from decisions made by the beneficiaries. Some charge flat rate fees, while others have included a maintenance fee and some charge for individual drugs including MCH/FP services. The funds collected are deposited in their bank accounts. There are elaborate rules to operate these accounts. There are, for example, three signatories (chairman, secretary and treasurer) required to withdraw any money. The officer in-charge is the secretary of the committee according to the latest MOH guidelines. The revenue from cost-sharing is used for facility maintenance, payment of salaries to clerks & watchmen and purchase of supplementary drugs.

**Health Facility Community Staff:** In all the facilities, the community has employed a clerk, a watchman and a cleaner and their salaries are paid from the cost sharing revenue. The HFMCs also supplement any short fall in the supply of drug as advised by health staff. Preventive maintenance tool kits have also been provided in most facilities. The PHTs and the local artisan use the tools to repair their health units. Most communities have rehabilitated their facilities with no external support.

**CBHC Activities:** PHC activities in the community are managed by VHCs. Except for technical assistance and supervision from the TOTs, all other resources required for CBHC activities are from the beneficiaries themselves. VHCs and CHWs mobilize the communities to undertake CBHC activities including IGAs. There is need however to create more IGAs to enable this activity to sustain itself.

**Bamako initiative (BI):** This was initiated from the beginning using the community resources. Except for training and supervision that was provided from the MOH, all other resources were from the community. The funds from the BI have gradually grown to a level where the communities are planning to open more pharmacies. They are able also to pay their community pharmacists from the same funds. Bamako Initiative has proved to be viable and the activity is expected to spread to large parts of the project area.

**GOK Support:** All technical staff in project-assisted facilities are employed and paid by the government and the facilities have been integrated into the Nyeri District Health Management Board (DHMB). They are regulated within the system and drugs are supplied.

##### **4.2 Sustainability of Water Facilities:**

Availability of water has remained a top priority in the project area since the inception of the project. At design, there was great need for domestic water and minor irrigation. From the beneficiaries' own assessment, the Domestic Water Supply has been rated highest in achievement. The connections have been more than designed

and all those connected practise minor irrigation (0.125 – 0.5 acres). All the 21 water projects once completed are highly sustainable and the following mechanisms have been put in place.

**Water User Associations (WUA):** These are associations formed by water projects to manage water resources. Each WUA has by-laws and a periodically elected management committee. Water disputes are solved here and those of higher magnitude are referred to the District Water Office and the Department of Social Services. The by-laws address such issues as equity of water distribution, conflict resolution, financial management etc.

**Water User Fee:** Each water project has instituted collection of fees in the by-laws for smooth running of the project. Examples are registration fee, penalty fee, water consumption fee etc. Money collected is banked in the Water Project Account run and managed by specific community elected Water Projects Committees and is used to repair their water system, pay maintenance fees, committee allowances and office clerks.

**By-Laws:** With the assistance from the DSS, each water project has elaborate by-laws that guide the daily project operations and management. Occasionally there are conflicts in use of water and leadership and the by-laws are used to solve the conflicts.

**Beneficiary Participation:** This has been inbuilt into the project and is rated as highly effective. Beneficiaries make their own decisions in public meetings and agree on contributions and roles of each stakeholder. This has created cohesion amongst them and guarantees project sustainability.

**The GOK Role:** All these water projects are operated under the Water Act enacted by the government. They are supervised by the District Water Office, which has posted officers to work with the beneficiaries. The government therefore continues to supervisory and regulatory role.

#### **4.3 Sustainability of Beneficiary Groups**

Promotion of beneficiary participation in project activities through mobilization, awareness creation and training has been the backbone of this project. The sustainability of beneficiary groups cannot therefore be analysed separately from the core components. Effective project management committees ensure that projects attain organizational and technical competence to carry out their activities. Beneficiaries were involved in the selection, design and implementation of their own activities. Participation of beneficiaries' representatives in the Annual Review Workshops and project supervisions brought beneficiaries close to government officers and they (beneficiaries) developed confidence and have direct access to officers for advice and conflict resolutions.

All groups operate bank accounts so as to save funds for future maintenance of their projects. They are also encouraged to source for affordable credit from various credit agencies operating in the district. Similarly, the DSS has continued to advise the beneficiaries' in group management that ranges from mobilisation, training, registration, formulation of by-laws etc. Although the department suffers from staff shortage, there are DSS staffs that continually assist beneficiaries on group management in the project area.

**Rural Credit:** The cancellation of credit sub-component during the CPR worked against the achievement of the project objectives. The project however, continued to support the formation of community a based and driven credit organisation – the Kieni Revolving Fund (KIREFU) that is now accessing credit to beneficiaries although it is unable to meet the credit needs of the various groups and individuals.

#### **4.4 Sustainability of Agricultural and Home Economics Activities**

In order to ensure that the agricultural activities are sustainable, the following have been put in place:

**Training:** Beneficiaries have been trained and will continue to be trained on horticultural crop production an undertaking meant to ensure increased farm income so that they get enough to sustain themselves as well as the project.

**By-Laws:** All irrigation projects have elaborate water users by-laws, which have been formulated and passed by members. It has a cost sharing element where members contribute towards meeting the costs of maintaining and managing their schemes. The by-laws are enforced to make sure that the project management runs smoothly. Beneficiaries are planning to construct storage reservoirs to be used during the dry season for sustainable irrigation.

**GOK Staff:** Retention of trained extension staff by the G.O.K within the project area even after the project expiry will ensure that the beneficiaries continue receiving the necessary technical advice. MOARD extension staff will continue to promote use of locally available materials in the construction of appropriate technology devices and will encourage farmer to farmer extension where group members will follow up to see and encourage their colleagues to practice technologies they have learnt.

**Marketing:** With the increase of agricultural produce as a result of improved water supply, marketing has emerged as a key area of concern. Lack of immediate market, transport problem and middlemen exploitation of farmers are issues that will need to be addressed. Beneficiaries have began forming marketing groups to improve the farmers bargaining power for their produce and solicit for further markets but this needs further improvement & coordination

#### **4.5 Institutional Support**

This component involved the strengthening of the district level DFRD institutional infrastructure including the offices of the DDO, DPO, DSO and the construction and equipping of a DIDC. Although the DFRD has its own structural weaknesses, the DPU has been constructed and houses the offices of DDO, DPO, DSO and a DIDC. The increasing uses of the hall for various functions, with a user fee being charged and the demand for research materials from the DIDC are all guarantees of sustainability of the facility.

However, there is a problem of using user fees collected in the hall. According to the government revenue regulations, such fees collected are remitted to the Treasury. However, the GOK allocates maintenance funds for the facility but are inadequate. To ensure proper maintenance of the facility the GOK allocation will need to be increased substantially.

### **5.0 PERFORMANCE OF STAKEHOLDERS**

Stakeholders here are defined as the Government of Kenya, IFAD/UNOPS and Beneficiaries. In the project design, each of these stakeholders was assigned specific responsibilities. This section assesses how each performed the responsibilities.

#### **5.1 Performance of IFAD / UNOPS**

The performance of IFAD and UNOPS is based on the assessment of the relevance of the project design, project objectives, baseline survey, Mid-term Review, Final Evaluation, supervision missions and following up of the implementation of recommendations.

**Project Design:** The project was designed and implemented within the GOK strategy of DFRD. The FDP does give the implementation procedures of the five components with differing depths and clarity. It also clearly defines the principal objective of respective components, and to our assessment, these objectives were well defined. Definition of the targeted population was however vague and this was understandably due to lack of socio-economic data.

**Project Baseline Survey:** Defining of targeted beneficiaries was difficult at the design and FDP highly recommended that a Baseline Survey be undertaken at the start of the project. The Survey was expected to make a thorough identification of the rural poor to ensure that project initiatives reached the most disadvantaged sections of the target population. Though the survey was undertaken, it was during the fourth year of the project implementation. It was moreover not analysed and lacked focus. It was therefore not useful. As a result, the project was implemented without a baseline survey, making subsequent evaluation studies difficult. No efforts were made by either GOK or IFAD to correct the situation. In this area, the performance of both the IFAD and GOK were unsatisfactory.

**Mid-term Review (MTR):** The Financing Agreement required that a Mid-Term Review be carried out before the end of the third year to evaluate the project achievements and constraints, as well as design reorientation that might be required. The review was undertaken as scheduled by the GOK and IFAD. The principal recommendations were overshadowed in the same period (1995/96) by a Country Portfolio Review Mission (CPR) fielded by IFAD to review the entire IFAD portfolio in the country. Its recommendations led to the

cancellation of Agricultural and Special Financing Facility. The CPR failed to reconsider this cancellation on the overall objective and scope of the project, meaning that these remained unchanged under reduced components. There was also a failure of UNOPS to advise IFAD adequately on this area.

**Final Evaluation:** The final evaluation was undertaken by IFAD in 1998 and strongly revealed the strengths and weaknesses of the project. The evaluation had two principal recommendations (i) Extension of the project for two years in order to consolidate what had been achieved by then and utilise the balances of the grant resources, which were estimated at 59%. (ii) Examine the case for further IFAD's commitment to the project area within a defined framework for intervention in Kenya's dry lands. An extension of two years (until 2001) was granted and a new project; Central Kenya Dry Area Project was effected. The study was focused and it gave a new look to the project. IFAD's response to the recommendations was fast and timely.

**Supervision Missions:** Project supervision was the responsibility of UNOPS. They carried 2 supervisions annually prior to the CPR of 1995 but prescribed to annual supervision from 1997. Under all standards, UNOPS carried out professional missions and produced standard reports. They unearthed poor flow of funds to the project and procurement problems. Their constant follow ups on financial flow, and enjoining demand from IFAD led to opening of District Project Account which relatively eased the problem. They further provided very relevant administrative, managerial, planning and policy guidance on the implementation of the project. On procurement however, UNOPS did not have much impact. There were no mechanisms to enforce its recommendations. Procurement of health equipment, for example took almost seven years.

As the evaluation mission noted, there is no doubt that UNOPS has had a positive effect on the planning and implementation and great input in the management of the project. Their annual reviews have categorised NDAP as having minor problems. This means that within the Kenya Portfolio, UNOPS considered NDAP as probably the most successful project.

**Implementation of the recommendations made by UNOPS/IFAD:** Recommendations made by both UNOPS and IFAD relied on the goodwill of the GOK to implement. The two institutions were not effective in the follow-up of some of the key issues with GOK; like a poor baseline survey, weak MIS and M&E system, financial problems, procurement and audit delays. It took quite a long time to address these problems of which some were not effectively addressed.

IFAD accepted and acted on most of the recommendations of the CPR but it failed to respond to subsequent and frequent warnings raised by UNOPS in their supervision missions' reports on the weak monitoring and evaluation system and inadequate adherence to auditing (Long form) and poor financial flow to the district.

All in all, IFAD/UNOPS did identify problems timely and communicated the same to the Ministry of Finance and Planning and the implementing Ministries. Withdrawal applications were timely processed unless supporting documents were missing. In overall, the performance of both IFAD and UNOPS could be rated as very good.

## **5.2 Performance of Government of Kenya**

The assessment of the GOK performance has been based on the adherence to the financing agreement, project implementation performance, staff performance, funding, financial flows, project coordination, management, monitoring and evaluation, and actions taken on the recommendations made by UNOPS and IFAD.

**Adherence to the Financing Agreement:** The GOK adhered to the Financing Agreement on the use of funds, procurement procedures and establishing required institutions for project implementation. A mid-term review of the project was done at year 3 which proposed to re-orient the project activities as per the implementation experience. The CPR cancelled the Agriculture Component and the Special Financing Facility, which was accepted by the government.

The Financing Agreement allocated project funding by both IFAD and GOK. The GOK performance in terms of utilisation of funds was not satisfactory due to the poor procedures of management of funds. While the staff prepared detailed annual workplans and budgets, the plans were not fully factored in the printed estimates. Serious cash flow problems in the district were the main hindrance to project implementation. Similarly, SOEs were not submitted in good time resulting in delay in reimbursement and untimely Audit reports, which were received in short form rather than in the long form. Audit reports were delayed between 1991/92 to 1994/95 forcing the donor to temporarily suspend the project funding in 1995/96 financial year. To alleviate the problem

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of flow of funds, District Project Account was opened and made operational in the year 2000. Under the new system, project funds are released from the Paymaster General (PMG) account and transferred directly into this account, which has very clear accounting procedures. The only remaining concern is to ensure that amounts detailed in the AWPBs are reflected in the printed estimates.

**Project Management:** GoK has played a wide role as the main implementing and coordinating agency (through the Ministry of Planning and National Development) and disbursement of funds (through the Ministry of Finance). Technical support, advice on policy and supervision has also been a key input from headquarter staff of all implementing Ministries. At the District level coordination of activities has been through various committees (PMC, DEC, Committees at divisional, locational and sub-locational levels) with the office of the DPO being very central in facilitation of the necessary coordination, and arrangements for workshops, field visits and other aspects of M & E. A National Steering Committee initially met regularly but later slackened and visited the project on an annual basis when there was UNOPS supervision mission.

At all the implementing ministries headquarters, qualified desk officers and their assistants were appointed and were responsible for component implementation. Similarly, in the district, qualified officers implemented the project. At the Ministry of Planning and National Development Headquarters, there was no monitoring and evaluation officer as required in the project design.

The district level management was successfully established but there was lack of professional and authoritative Coordination and Management at the national level. The Ministries headquarters failed to issue timely A.I.Es to the District resulting in poor disbursements and these delays defeated the objectives of the DFRD in promoting decentralised participatory planning processes. Statement of Expenditures (SOEs) were rarely submitted to the donor in time and this made it difficult to collate reimbursement claims and prepare timely audited accounts. The district continuously experienced liquidity problems all of which hampered project implementation. NDAP rarely received full amount of resources approved in the AWP/Bs and had only disbursed 41% of its allocated resources after its initial life span of 7 years. There was lack of adequate financial monitoring and systematic project supervisions were rarely carried out to identify areas of non-compliance with the GOK regulations and financing agreement. Lack of submission of withdrawal applications in time ended in government spending a lot of unreimbursed expenditure.

The Monitoring and Evaluation system was weak and failed to provide the management with the information required to guide project implementation and assess impact of decisions made. There were excessive delays in procurement of goods and services e.g. the health unit equipment were supplied in the 9<sup>th</sup> year of project implementation.

The project objective of targeting the poor, promoting beneficiary participation through the project cycle management and strengthening local development institutions and intersectoral coordination through the DFRD was not satisfactory because of poor financial flow of resources to the district, delayed procurement of goods and services and liquidity problems at the District Treasury. This affected intersectoral planning and implementation of activities and timely sharing of information amongst implementing sectors. Often, beneficiaries were not aware when the project resources would be made available to enable them plan for their counterpart funding. Despite all these limitations, the GOK performance can be rated satisfactory.

### **5.2.1 Performance of Beneficiaries**

According to the Final Design Paper, the project was to be implemented through various categories of groups. Beneficiaries were to contribute about 15% of projects' costs. Assessment by UNOPS during its supervision and IFAD evaluation mission in 1998 revealed very high beneficiaries participation and contribution towards project implementation (see Annex VIII on IFAD, GOK and Beneficiaries Contributions and Appendices 2 and 3 on Beneficiaries Contributions in Health and Water facilities). Beneficiaries' participation was encouraging. The main limitation was however lack of proper documentation of their actual contribution. Overall the beneficiary participation and contribution was highly satisfactory.

## 6.0 LESSONS LEARNT

During the implementation of this project (1991 – 2002), there were major lessons that were learnt which provide a basis for sharing experiences with a view to improving implementation in other similar projects as well as provide replication opportunities in other areas. This section looks at some of these lessons.

**Baseline Survey:** Baseline survey should have been conducted before or during the first year of project implementation. For example, lack of baseline data made it quite difficult to set the targets and the objectives in the final design paper were quite unspecific since they did not quantify the expected outcome. In the absence of baseline data, it has been quite difficult to assess quantitatively the impact of the project.

Stock taking of community resources should indicate the potential of that community and hence the level of their expected contribution. For example, if a community is not able to construct a dispensary, then it is illogical to ask them to construct staff houses, which cost more than the dispensary block as happened in the project's Health Component at Kiamathaga Dispensary. Often, the community would agree to construct the staff houses to avoid losing the facility but it strains their resources too much.

**Training and Capacity building:** Training and Capacity building supporting structures must be put in place before community facilities are implemented. For example, PHC facilities were implemented before the training of VHC and formation of divisional PHC core teams. The VHCs which were meant to supervise CHWs were not sure of their roles and therefore could not guide those below them and this caused a major weakness in monitoring. In the Kieni West, the first group of CHWs and VHCs were trained by the district PHC team with minimal participation of divisional team. This affected the flow of information and severely weakened the reporting system. Some reports were submitted to the nearest health facility and others handled over to the district co-ordinator. The VHCs had no access to the information and no feedback was given back to the community on their health problems in order for them to plan health actions.

Community empowerment enhances community ownership of development interventions. It was learnt that beneficiaries can be a big source of project resource in terms of contribution and cost sharing if proper beneficiary preparation and organization is done so as to stream line the whole process. When people identify themselves with the project, their contribution goes along way in supplementing both the GoK and Donor efforts. For example, the poor who are considered credit unworthy are actually the force behind KIREFU SACCO which was formed by groups of poor members who have managed to raise over Kshs.3 million (US\$ 50,000) for their savings and credit activities. The same phenomenon was recorded in water and health projects where beneficiary participation and contribution went beyond the original project expectation. Communities can similarly form strong institutions if well trained and mobilized.

The project further reveals that on site training is more effective than institutional training. Despite being cheaper, it benefits more beneficiaries. Similarly, there is need to use beneficiaries with skills as TOTs because their services remain as a resource to the community since they are not transferable like the GOK staff.

**Regular Meetings and Consensus Building:** Regular meetings among collaborating parties help build consensus and provides a forum for sharing experiences and problem solving. Significant changes were made to the project interventions. For example, when the agricultural production and the credit facility components were cancelled without consideration to the overall effect on the beneficiaries. The effects of this was two fold; reduction in the project's ability to offer appropriate support to the poorest groups and their key livelihood activities; and scaling down on the actual number of potential beneficiaries. None of these adverse implications were analysed or justified.

**Community participation and Cost Sharing:** Strong beneficiary participation has been a positive feature of the project, especially in the management of health facilities and water schemes. This is not because it had been factored in the original design but because of their ability to promote and support groups and built on existing group practices and secondly, the beneficiaries willingness and acceptance to manage and sustain their own development initiatives.

Facilitating people to participate in the project cycle management widens their choice and gives them sense of fulfilment and opportunity to contribute in the formulation and implementation of relevant projects/policies that reflect their needs and concerns. For effective execution of community projects, it is essential to involve all parties in the process of project identification and preparation to enable them to have clear focus of their roles and responsibilities. In the case of NDAP, it was assumed that the use of the DFRD strategy would

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automatically result in a participatory approach and, secondly that the activities determined in the design would be the ones required by the communities. This did not prove feasible. Firstly, the original design did not include the possibility of beneficiary changing their priorities. Secondly, in the preparatory phase, practical training was not provided for all actors involved in the implementation to ensure that participatory approaches and the implications for implementation were fully understood. These changes were later effected and enhanced beneficiary participation.

The success of the implementation of the cost sharing system in PHC and Domestic water Supply has shown that the project can be replicated even in areas with high incidences of poverty. In the case of the Kieni Divisions, improvement of the PHC and Domestic water Supply was a very high priority for the local population and this ensured more efficient delivery of services, better maintenance and repair. A key input to this process was the introduction of the Facility Management Committees and the acceptance of the cost sharing as a fair method of contributing to the maintenance of improved services. The contribution levels are set in such a way that they are not prohibitive but are only substantial enough to result into useful improvements. In addition, acceptable arrangements can be made to exempt or reduce payments for those who cannot afford to pay.

**Women Participation in Poverty reduction Initiatives:** Experience during the process of project implementation has shown that women groups are more active and responsible than men groups in articulating their needs and finding solutions. For example, in the credit groups, women loan repayment rates are better and consistent. 80% of the groups in the savings and credit category are women groups.

**Monitoring and Evaluation:** Setting of an effective Monitoring and Evaluation system should be the first activity in the beginning of the implementation of a project in order to ensure that all the essential activities and outputs necessary for achievement of project objectives and impact are precisely and verifiably defined. To enable the communities to carry out effective monitoring, they should be regularly trained not only on data collection but also on the use of data. For example, the VHCs should be able to summarize data and make proper inferences from it. This is the only way the CHWs will be motivated to continue collecting information.

## ANNEXES

### Annex I: Original and Last Modified Logical Framework

In 1992/1993 the project had developed 3 evaluation models assisted by the School of Tropical Medicine in Belgium. These were a Causal Model, Hippopoc Table and Dynamic Model. These models did not follow the logical framework. The Causal Model is the general health and well being of target population model and gives a global understanding of the causes responsible for health situation because the overall objective of the project was to improve the health situation of the target groups. The model highlights that the solution to improving the health situation in the Kieni Divisions was to be multisectoral and it enables us to assess the relevance of various interventions, activities and factors outside the project control.

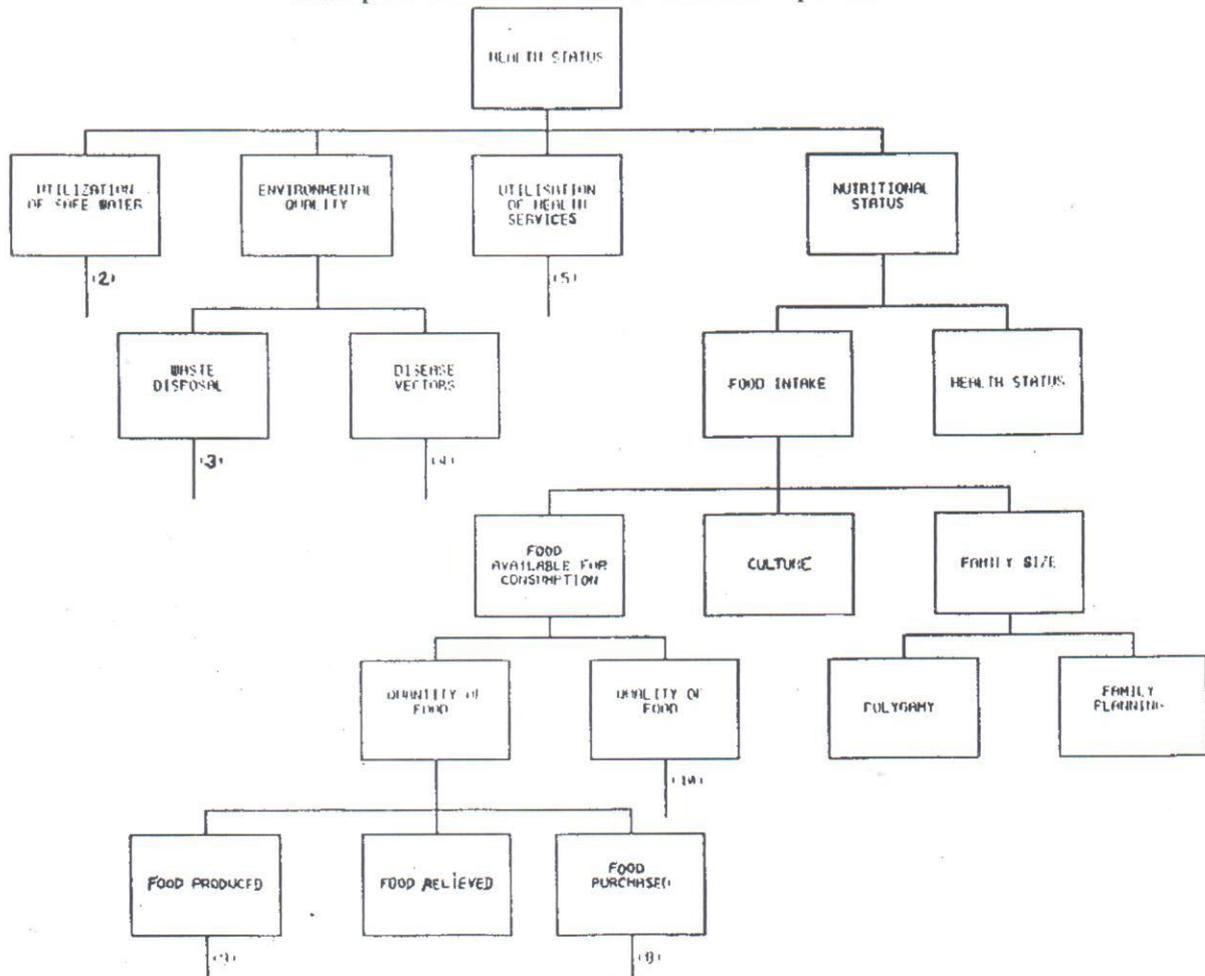
The Hippopoc table is a 4-column table where different activities are listed with activities, inputs, outputs and outcomes (effects) and was used together with the Causal model to prepare the dynamic model.

The Dynamic model is a graphical presentation on how the programme was supposed to work. It shows how different programme inputs are supposed to be transformed into operational objectives (outputs) and outcomes (effects). This is the model that was required to: -

- Provide a comprehensive visualization of the programme.
- Help identify information required so that data not available could be collected.

The dynamic model was not used by the implementing officers but its participatory nature of the dynamic methodology used has played a key role in enabling the officers who have been in the project for long to gather a lot of information from knowledge and experience of various beneficiaries involved in the implementation of the various project activities to improve the management of the project.

Example of a Causal Model for Health Component





**Annex II: Studies Undertaken by the Project**

<b>Recommended Studies in Project Design</b>	<b>Time Taken</b>	<b>Objectives</b>	<b>Major Findings</b>	<b>Recommendations</b>
Baseline Survey	1994	-Collect baseline data on the initial target group profile i.e. their localities and characteristics	-High incidence of female headed households; -Livestock production a major economic activity; -Low group membership; -Low expenditure on health activities; poor sanitation, and low utilization of health facilities due to lack of drugs.	-Improve quality and frequency of data collection through annual surveys -Train staff involved in the project in data collection; -Special studies on specific areas of concern
Mid Term Review	1995	-Evaluate project achievements and constraints; -Advise on any design orientation to correct; Institutional policy actions necessary to achieve the project objectives; -Carry out a global impact assessment of the project on mortality & Nutrition.	-Serious problem of financial flow and inadequate funding to the District; -Poor reimbursement claims from donor due to poor financial records particularly at Ministry headquarters; -Inadequate counterpart funding (GoK); -Non-compliance of project with the audit requirement; -Weak M&E system; -Poor targeting of project activities due to lack of baseline data; -High beneficiary contributions and enthusiasm to the project; -Project design very relevant to poverty alleviation..	-Improve budgeting provision in the project; -Enhance preparation of SOEs and Withdrawal application by using expenditure data from District treasury; -Agro forestry and fisheries components be added to the original components; -Ministries issue timely AIEs to the district; -A reconciliation exercise be carried to sort out unclaimed expenditure; -Improve procurement of goods and services for the project by sanctioning those responsible for the delays; -The GoK enhance auditing of project accounts and if it lacked capacity contract the job to independent auditors; -Credit proposal submitted by beneficiaries be reviewed to ensure it was in agreement with the donor agencies position and implemented without delays; -The issue of baseline survey be sorted out by all stakeholders by holding a days workshop.
Country Portfolio Review	1995	Review Kenya's portfolio performance.	-Non-submission of audited statement of accounts for 4 years; -Project failed to introduce effective monitoring systems; -Non-submission of AWP/B to IFAD; -No involvement of beneficiaries in data collection; -Inability to implement small-scale irrigation and credit components.	-Cancellation of Agriculture & Irrigation Development and shifting the component to NEP II; -Deletion of the Special Financing facility; -No withdrawal from Grant account before approval of AWP/B by CI and IFAD; -Submission of all outstanding audits before September 1995 and thereafter audited reports to be submitted 4 months after closure of every financial year. -Introduce data collection routines and indicators and

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<b>Recommended Studies in Project Design</b>	<b>Time Taken</b>	<b>Objectives</b>	<b>Major Findings</b>	<b>Recommendations</b>
Reconciliation of Project Accounts – I	1996	Establish the unclaimed amounts and claim the same on behalf of Ministries	Reimbursement claims worth KES 32,924,554.62 were processed	Annual Progress Reports be incorporated as a grant condition. -Classification of the project as <b>core or high</b> in the PIP. Establishment of External Resources sections to deal exhaustively with donor funds.
Reconciliation of Project Accounts – II	2001	On behalf of Ministries	Reimbursement claims worth KES 66,487,325.25 were prepared.	Project working manuals be introduced and supplied to implementers.
Final Evaluation	November 1998	-Assess rationale and validity of the project design parameters. -Evaluate the project socio-economic effects & impacts and draw lessons from this experience. -Examine possible use for the balance of unspent funds. -Identify factors and constraints influencing project implementation and issues relating to sustainability. -Identify replicable approaches and interventions for community based rural development projects	Positive aspects: Introduction of cost-sharing mechanisms and strengthening of groups abilities to undertake the operations and management of resources provided to them. Negative aspects: Lack of impact data, leading to doubts on recipients of benefits.	-Extension of the project for 2 years in order to consolidate what had been achieved and utilise the balance of grant resources, which were estimated at 59% -Examination of the case for further IFAD's commitment to the project area within a defined framework for intervention in Kenya's dry lands.
Project Completion Report	2002	-Assessment of project design towards achievement of project objectives. -Documentation, analysis and identification of achievements, constraints and replicable interventions and approaches.	-Poor financial flow was the main constraining factor during the project implementation; -Health and water components performed well and overachieved their targets; -Assessment of project impact was difficult in absence of baseline data for comparison. -Inadequate targeting due to lack of baseline information/data. -Project design and objectives very relevant to poverty alleviation.	-Baseline survey and setting of M&E systems should be undertaken as a first activity in project implementation; -Decentralization of planning (DFRD) should be followed by devolution of funding at District level. -It is important to support off-farm activities by encouraging and promoting community based savings and credit institutions. -Project resources should be biased to supporting women related activities because they are more active partners and are more vulnerable to poverty. -It is crucial to improve project coordination at national level by having autonomous project coordination unit because weak coordination of NNDAP greatly contributed to

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**Annex III: Disbursement by Year, Component and Category of Expenditure  
(a) Expenditure by Category and Component**

Category of Expenditure	Components											
	Institutional Development		Group Development		Primary Health Care		Domestic Water Supply		Farm and Agricultural Development		Total	
	IFAD	GOK	IFAD	GOK	IFAD	GOK	IFAD	GOK	IFAD	GOK	IFAD	GOK
I. Civil Works	5,870,678.00	1,036,002.00	101,840.00	17,972.00	17,858,086.00	3,151,427.00	70,958,166.80	12,522,029.40	12,851,462.00	2,267,905.00	107,640,233.00	18,995,335.00
II. Vehicles and Equipment	4,752,650.00	2,559,141.00	1,477,658.00	795,662.00	2,480,785.00	1,319,096.00	5,851,657.50	3,150,892.50	1,497,915.00	806,570.00	16,060,666.00	8,631,362.00
III. Technical Assistance and Training	18,711,653.00	-	13,745,124.00	-	2,736,027.00	-	2,550,340.00	-	5,474,231.00	-	43,217,375.00	0
IV. Special Financing Facility	-	-	-	-	-	-	-	-	-	-	-	0
V. Incremental Operating Costs	10,458,685.00	4,482,293.00	5,459,356.00	2,340,153.00	5,975,698.00	2,664,482.00	4,272,339.00	1,831,002.60	9,187,548.00	3,937,521.00	35,353,626.00	15,255,452.00
VI. Unallocated	-	-	-	-	-	-	-	-	-	-	-	0
<b>Total Kshs.</b>	<b>39,793,666.00</b>	<b>8,077,436.00</b>	<b>20,783,978.00</b>	<b>3,153,786.00</b>	<b>29,050,596.00</b>	<b>7,135,005.00</b>	<b>83,632,503.30</b>	<b>17,503,924.50</b>	<b>29,011,156.00</b>	<b>7,011,996.00</b>	<b>202,271,900.00</b>	<b>42,882,148.00</b>
<b>Total</b>	<b>47,871,102</b>		<b>23,937,764</b>		<b>36,185,601</b>		<b>101,136,427.8</b>		<b>36,023,152</b>		<b>245,154,048</b>	

**(b) Total Expenditure per Ministry Headquarters and District (Kshs)**

Category of Expenditure	Ministries											
	MOFP		MHAHS		MOH		MENR		MOARD		Total	
	HQs	District	HQs	District	HQs	District	HQs	District	HQs	District	HQs	District
I. Civil Works	-	6,906,680.00	-	119,812.00	-	21,009,513.00	-	83,480,196.00	-	151,193,670.00	-	126,635,568.00
II. Vehicles and Equipment	6,206,487.00	1,105,304.00	1,146,420.00	1,126,900.00	2,155,884.00	1,643,997.00	7,574,067.30	1,353,982.70	320,050.00	198,443.00	17,402,908.00	7,214,619.00
III. Technical Services and Training	11,100,766.00	7,610,887.00	6,688,576.00	7,056,548.00	-	2,736,027.00	992,156.20	1,548,183.80	637,414.00	483,681.00	19,418,912	23,788,463.00
IV. Special Financing Facility	-	-	-	-	-	-	-	-	-	-	-	-
V. Incremental Operating Costs	4,469,476.00	10,471,502.00	2,835,829.00	4,963,680.00	3,805,132.00	4,835,048.00	1,710,963.45	4,476,878.00	1,763,545.00	11,361,525.00	14,584,945.00	36,108,633.00
VI. Unallocated	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Kshs.</b>	<b>21,776,729.00</b>	<b>26,094,373.00</b>	<b>10,670,824.00</b>	<b>13,266,940.00</b>	<b>5,961,016.00</b>	<b>30,224,585.00</b>	<b>10,277,186.95</b>	<b>90,859,239.00</b>	<b>2,721,009.00</b>	<b>33,302,144.00</b>	<b>51,406,765.00</b>	<b>193,747,283.00</b>
<b>Grand Total</b>	<b>48,323,866</b>		<b>23,937,764</b>		<b>36,185,601</b>		<b>101,136,426</b>		<b>36,023,153</b>		<b>245,154,045</b>	

(C) Total Expenditures, Withdrawal Applications and Reimbursements (Kshs).

Category of Expenditure	Total Expenditure		Total Withdrawal Application		Total Disbursements		
	KES		KES		KES	USD	BEF
I. Civil Works	126,635,568.00		119,800,100.34		60,083,106.05	954,833.13	35,387,555.88
II. Vehicles and Equipment	24,692,028.00		20,785,133.81		9,343,785.23	182,295.98	5,978,485.56
III. Technical Services and Training	43,217,375.00		50,533,170.21		17,571,783.59	302,929.06	10,793,335.88
IV. Special Financing Facility			13,370,111.71		383,922.98	7,160.83	254,925.14
V. Incremental Operating Costs	50,609,078.00		24,849,900.63		19,021,320.96	333,899.86	11,361,316.35
VI. Unallocated					-	-	-
<b>Total Kshs</b>	<b>245,154,049.00</b>		<b>229,338,416.70</b>		<b>106,403,918.81</b>	<b>1,846,781.94</b>	<b>63,775,618.88</b>

From this table, total expenditure is more than total withdrawal application, which is also more than total disbursement. The probable reason is:

- (i) Total expenditure vis a vis WA's - the Total expenditure includes a GoK element which is not claimable.
- (ii) WA's vis a vis disbursement - some WAs prepared by a consultant were not honoured. Ineligible expenditures are also not honoured.

**Annex IV: Summary of Amendments to the Loan Agreement BG006KE.**

- Audit of the grant to be submitted to the fund not later than 4 months after the end of the fiscal year from the previous provision of 9 months.
- Agriculture and Irrigation development, livestock extension and adaptive research were transferred to the National Extension Project Phase two (NEP II) which at the time had only one year remaining to closure. Though funded by IFAD, the NEPII-IFAD support component was placed under the World Bank as IFAD's/Kenya country supervising institution.
- No withdrawals would be made from the Grant Account in respect of expenditures for the project until the AWP/B for the respective fiscal year was reviewed and agreed with the Fund and cooperating institutions and incorporated into respective Ministry budgets as either 'core' or high priorities in the PIP.
- Cancellation of the Special Financing Facility and the funding transferred to Health, Sanitation and Water components.

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**Annex V: Project Costs Compared with Original and Amended Design**

Category	Original Amount of Grant Allocated (Expressed in BF)	Original % of Expenditures to be Financed	Amended Amount of Grant Allocated (Expressed in BF)	Amended % of Expenditures to be Financed
I. Civil Works	43,680,000	85%	43,680,000	85%
II. Vehicles and Equipment	11,830,000	100% of foreign expenditures; 100 ex-factory price for locally manufactured items or 65% of other local expenditures	11,830,000	100% of foreign expenditures; 100 ex-factory price for locally manufactured items or 65% of other local expenditures
III. Technical Assistance and Training	2,910,000	100%	2,910,000	100%
IV. Special Financing Facility	6,240,000	-	0	
V. Incremental Operating Costs (including salaries and allowances)	20,410,000	70%	20,410,000	70%
VI. Unallocated	24,930,000		31,170,000	
<b>Total</b>	<b>110,000,000</b>		<b>110,000,000</b>	

The total project cost (BF 110,000,000) and allocations to categories, apart from Special Financing Facility remained the same. Special Financing Facility along with Farm and Agriculture Development component were cancelled. Only the allocation of Special Financing Facility (BF 6,240,000) was re-allocated to unallocated. The Expenditure Plan in the FDP was not re-planned. This means that the planned cost of Farm and Crop Development (USD 0.77 million) was not re-allocated.

**Annex VI: Project Physical Progress by Component (Logical Framework)**

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
Primary Health Care To increase accessibility to basic health services to 50% of the Population over the project period.	Construction and Rehabilitation of health facilities	6	7 facilities completed and equipped – 1 additional facility came about as a result of revised activity on disadvantaged areas	Reduced distances to the nearest health facility from average of 12km to 8km and hence decongesting the main facilities.
	Construction of staff houses	9	7	Improved working environment and has motivated health workers performance
	Procurement of assorted equipments for new & rehabilitated facilities	For 6 dispensaries	8	?

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
To strengthen the district health information system from community to district.	Purchase of bicycles	174	58	Created false and unattainable promises because maintenance costs were very high due to poor terrain.
	Purchase of vehicles	1	1	Improved supervision of CHWs, TOTs, VHCs and provided more efficient distribution of drugs
	Purchase of motorcycles	2	3	The divisional PHC coordinators were able to plan their supervisory visits
To strengthen nutritional education, Preventive, Promotive & Curative Services at the first level of contact	Training of DHMT	3 courses	6 in management and 7 on service delivery capacities	Well managed health services; A pool of skilled trainers available. Enhanced use of work plans and supervision
	Training of Health workers manning the health facilities	12	60 in various skills	Most cases are managed at first contact; Facilities well maintained
	Training of TOTs	62 in PHC 60 in BI 50 in CBR	Awareness on PHC/CBHC high, Personal hygiene improved	Improved household hygiene, sanitation
	Training of facility Management committees (HFMCs)	6	19	Maintenance of facilities good; Community voluntarily introduced and are participating in cost sharing
	Training of VHCs	6 VHCs	105	Awareness of PHC/CBHC high, personal hygiene improved.
To strengthen nutritional education, Preventive, Promotive & Curative Services at the first level of contact	Training of CHWs	An average of 60	780	- Awareness of PHC/CBHC high, - Personal hygiene improved - Awareness on HIV/AIDS high & openly discussed.
	Establishing Kitchen gardens;	50% of the population	80% have functional kitchen gardens;	- Community awareness on nutrition high
	Rearing of household chicken;	100%	70% of households have chicken. The eggs are mostly used for home consumption and rarely sold;	- Increased use of safe fire places - Reduction of mortality for under 5 from 19.3% in 1991 to 5.2% in 2001
Rearing of household rabbits;	50%	30% Rabbit rearing is common in households with young families. Though the elder people	- Reduction in diarrhoea, skin and eye infections, intestinal worms. - Household diet improved	

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<b>Component and Specific Objective</b>	<b>Designed Activities</b>	<b>Target at Design</b>	<b>Achievement/Output</b>	<b>Observable Impact</b>
	Promote preventive and curative health services.	5.2%	are slowly changing to accept rabbit meat.	
	Construction of serviceable pit latrine; Construction of roof catchments.	100% 100%	5.3% (2001) 80% 30%	Reduced incidences of disease related to sanitation practices
To promote good sanitation practices	Construction of VIP latrines	600	9 VIPs – The prohibitive cost on construction of VIPs, shallow pits, discouraged replication. But at the beginning of the project, very few households (45%) had serviceable latrines.	85% of communities have serviceable pit latrines, which have improved household hygiene.
To strengthen the organization of Health information system	Training of health workers on improving HIS flow. Procurement of health equipment	12 Various	Only 4 officers were trained in computer based HIS. Health data not readily available at Districts and the only problem is feedback. Attained but in last year of project (2000/2001)	- Lack of timely health information flow back to community Improve utilization of the health units particularly the MCH, FP services

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
<p><b>Domestic Water Supply</b> To improve domestic water supply to the rural poor in Kieni Divisions</p>	<p>Construction of gravity water schemes involving construction of: -intakes. -mainlines. -tanks. -distribution lines.</p>	<p>6no. domestic water supplies to supply water to (3,300HH) 20,000 people involving construction of: -5 intakes. -6 mainlines. -6 distribution systems.</p>	<p>21 schemes with domestic and minor irrigation components were constructed of which 12no. are complete and 5 no are partially complete already supplying water to some 30,000 beneficiaries (4,000HH). 5no. are in advanced stage of construction and are expected to be commissioned in six months time to serve extra 20,000 beneficiaries. This has involved completion of: -16no. intake. -18no mainlines (90km of 150mm to 315mm diameter pipes); -21 no. distribution systems (160km of 50mm to 225mm diameter pipes); -18no. storage tanks (100m<sup>3</sup>-225m<sup>3</sup>). This has been achieved due to high beneficiary contribution (See Annex VII); The utilization of water in the schemes is reported through the already installed water points, which are used, by a household or several households for domestic and livestock use. Water for irrigation per connection is restricted to the registered member whose usage is per the projects by-laws.</p>	<p>Completed projects have greatly benefited the community through reduced workload to Women and children as distance to water point has been reduced to an average of less than 100m for the 4,000 households already connected as compared to the previous 3-10km. It has also increased level of income at household level due to introduction of high value horticultural crops, increase in food and milk production, improved nutrition status and reduction of water borne diseases. The standards of living have been improved as observed through building of better houses with solar panels, TV sets, increase in school enrolment with improved boarding facilities etc. The price of land has risen three folds in areas where water has reached (from US\$650 per acre in 1994 to US\$ 2,000 in yr 2000). Incidences of water borne diseases have reduced where water has reached as it is of better quality than from previous sources.</p>
<p>Capacity building in order to ensure future sustainability of the completed projects.</p>	<p>Community organization and training.</p>	<p>To train 6no. WUAs in management, operation &amp; maintenance of the water schemes.  To sensitize the community on the need of participating in protection and conservation of</p>	<p>4 new river catchments umbrella WUAs were formed for Nairobi, Naromoru, Burgret and Nanyuki rivers which originate and pass through the project area after mobilization of the smaller WUAs sharing common rivers.  21 no. WUAs have been trained in area of management, operation &amp; maintenance of the facilities, financial management and records keeping and preparation of progress reports.  Through workshops, WUAs have been assisted to formulate by-laws, which are enforceable and</p>	<p>All WUAs trained are still active in project activities and are: - maintaining bank accounts and other relevant records. - compiling and submitting progress reports. - holding regular AGMs as per their by-laws etc. - motivating the members to maintain the project  Most WUAs have embarked on investigations, planning and design of</p>

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Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
		<p>environment of water catchments.</p>	<p>user friendly as a management tool. WUAs have now formulated clauses in the by-laws to address equity of water distribution to all members; At least 4no. Artisans per project identified by the beneficiaries have been trained on the job during the construction period and have further passed on their skills to other people within the project area such that there is no vacuum left when one opts to vacate job.</p>	<p>flood conservation dams with their own funds in order to sustain the irrigation component in their projects; 12no. completed projects are still operational and are under full management of the beneficiaries through their elected committees; -Conflicts have been reduced in the WUAs and when they occur are resolved easily; In order to ensure that all eligible beneficiaries get access to water, the WUAs' have devised mechanism where poor members can be connected to water after paying a small fee and then make arrangements for gradual payment of all arrears over a period of time. The very poor are exempted from some contributions each case being handled on its merit; Equity is now being emphasized and use of meters is being accepted as the ultimate solution but the cost implications has inhibited their introduction. As a result, the first measure has been to employ rationing programs, restricting size of connection and sprinklers and limiting the maximum number of connections to the design capacity allocation.</p>

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
	M&E supervision	432 man-days to monitor implementation and evaluate progress against prepared work plans and give feedbacks.	Over 3000 man-days visits to monitor implementation and evaluate progress against prepared participatory work schedule with beneficiaries and also gave feedbacks. Monthly financial and physical progress reports were submitted by most projects in formats developed and agreed upon by beneficiaries (See sample annexed). Beneficiaries facilitated supervision visits when funds at district treasury were unavailable.	The beneficiaries facilitated some of the visits during the periods when there were no funds voted for the activity or when there were liquidity problems at the district treasury. This indicates beneficiaries are more than willing to cost share in projects that they identify as their priority.
Assessment of water resources	Completion of a District Water Development Plan	Assist in the compilation of District Water Development Plan through assessment of water resources, demands and recommend development options and strategies.	Kieni area water development plan was prepared up to the stage of final draft. In order to finalise the plan, it is necessary to organize a workshop for the stakeholders in order to come to a consensus. The draft however shows the current trend of the water resource availability and exploitation, coverage of project area by existing and planned water schemes in the project area. It is serving as guide to future water distribution, potential sites for Boreholes and dam sites for flood conservation.	The Kieni area Water Development Plan compiled indicate that there is not enough water and further exploitation of this resource require further reconsideration of the approaches e.g. boreholes or dams.
To improve the district supervision and monitoring level services	Procurement and rehabilitation of motor vehicles and motorcycles.  Procurement of various plants, equipment and office furniture	1 Landrover to be rehabilitated and 1 4WD pickup to be bought.  Various plants, equipment and furniture for use at the district water office.	2 4WD pick/ups, 3no. Yamaha 175cc motorcycles procured and 1 Land rover rehabilitated which improved transport and supervisory services at the district and divisions. All are in good condition except for the Landrover that has been bonded and sold. Various plant and equipment were procured and have improved the district level services and in the construction of intakes and tanks in the projects (see appended list); Data collection, analysis and storage have greatly improved.	More and timely visits for supervision increased rate of implementation.  More projects have been surveyed and design reports produced in a more timely manner.

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<b>Component and Specific Objective</b>	<b>Designed Activities</b>	<b>Target at Design</b>	<b>Achievement/Output</b>	<b>Observable Impact</b>
<b>Agricultural Development And Home Economics</b> Raise food production, incomes, and community nutritional status.	Farmers Training: On farm visits; Group demonstrations; Field days; Residential & Non Residential training; Farmers tours	90,464 farm visits; 31,508 group visits; 568 Field days; 37 residential; 10 Farmer tours.	68,815 14,882 283 13 2	-Farmer skills improved -Adoption of new technical messages -Farmer to farmer extension leading to enhanced multiplier effect, and so more farmers reached. -Increased farm productivity -Increased incomes
	Staff training: -Computer -Project proposal -Food security -Staff tours  Technical Packages: Home economics;  Irrigation; Animal production.	15 Packages 4 Officers 4 Officers 13 Tours  6 packages;  5 Packages; 7 Courses.	9 Basic packages 2 trained at KIA 5 Trained in Belgium 6 Outside the district & 1 in Uganda  3 packages on nutrition, Appropriate technology and entrepreneurship 2 Small scale irrigation 3 Courses in Bee keeping and small ruminant management	-Improved knowledge and skills -Improved efficiency and effectiveness in extension delivery. -Improved backstopping -Staff updated on new technologies
<b>Environmental conservation</b>	Rain water harvesting (roof catchments)	425 Water tanks and water jars	180	-Reduced time spent fetching water; -Availability of water for Kitchen gardens and fruit, fodder and fuel wood tree nurseries; -Increased milk production.
	Construction of basket food warmers	1,431	699	-Energy conserved; -Cooking time reduced; -Time available for income generation and child care increased.
	Tea cosy	1,361 tea cosies	548	Time and Energy saved More time availed for child care and other productive activities Reduced de-forestation
	Dish rack construction	1,298 to constructed	695	Improved Kitchen Hygiene

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
Improve household nutritional status	Establishment of model kitchen gardens	90 Ideal with all the requirements	60	-Availability of food in different combinations and as when it is required; -Fall back in time of scarcity; -Women in full control of kitchen gardens hence proper meal planning to take care of household nutritional needs; -Improved nutrition. - Income generated
	Adoption of kitchen garden	10,132 low cost kitchen gardens	7,622 were achieved	
	Nutritional education	1,813 lectures	1,515 lectures conducted	-Improved nutrition and knowledge; - Desirable food behaviour and nutritional practices; - Increase in diversity and quantity of family food supplies.
	Food preparation and cookery demonstration	3,605 demonstrations	3,192 demonstrations conducted	-Increased use of under utilized, nutritious, cheap, locally available foods.
	Food preservation and storage	737 Demonstrations on Jam making, Juices, and drying Vegetables and grains.	362 demonstrations	-Strategic reserve during scarcity; -Reduced post Harvest losses; -Saving on high costs which would otherwise have been incurred during scarcity; -Conserved nutritional value.
	Population education	1,656 lectures	1,073 lectures conducted	-Reduced family sizes whose nutritional requirements can easily be met.
	Rehabilitation of gravity fed-irrigation schemes	6 schemes to be rehabilitated	2 rehabilitated	Expanded area under irrigation and therefore increased food production.
		Length of lining of: 18 Distribution 12 main canal 15km canal piping	6.4km of distribution lined 1.9km of main canal lined 3.43km piped	Improved water distribution in schemes and reduction of water loss
		300 additional ha. Under irrigation	98 additional ha. Put under irrigation	Improved efficiency on distribution and reduced water loss seepage. Increased horticultural produce

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<b>Component and Specific Objective</b>	<b>Designed Activities</b>	<b>Target at Design</b>	<b>Achievement/Output</b>	<b>Observable Impact</b>
		3,000 farmers/women using irrigation water	750 households using irrigation water	<ul style="list-style-type: none"> <li>- Increased crop yield;</li> <li>- Reduced malnutrition;</li> <li>- Reduced women workload of water collection.</li> </ul>
		6 schemes to be designed, surveyed and approved.	4 schemes surveyed 3 schemes designed 2 schemes approved	Proper operational structures and community ownership
	Scheme organization and management	6 WUAs to have developed by-laws.	2 WUAs with developed by-laws.	-Water user groups cohesive -Proper management of irrigated water
		16 meetings to be held between farmers and DIU.	25 meetings were held	The many meetings held helped to resolve conflicts within the two schemes.
	Training of farmers using irrigation water.	The 6 schemes to receive training on operation and maintenance, leadership skills, water management and horticultural crop production and marketing.	5 training were achieved.	-Development of produce collection centres; -Farmer marketing organization; -Pegging on price maximization.
Raise family income through income generating activities	Running of group crop projects.	50 groups to grow crops as a group including maize, wheat, beans, potatoes and vegetables.	12 groups were achieved.	Increased group income; Improvement on family nutrition; Empowerment of women.
	Rearing of animals for groups income generation.	50 groups to rear various types of animals including sheep and goats, poultry, rabbits and bees.		Increased income; Improvement on family nutrition.

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
Improved small livestock production	<p>Training of farmers on small livestock production through lectures, demonstrations, farm visits, tours, off-farm training and field days.</p> <p>Dorper rams breeding programme to upgrade the indigenous sheep.</p> <p>Galla buck breeding programme</p> <p>Cockerels/pullets exchange programme.</p>	<p>To train as many farmers as possible on small livestock production.</p> <p>70 dorper rams to be given to groups. About 3500 off-springs by end of project period.</p> <p>70 galla bucks to be given to groups in exchange of indigenous bucks. About 800 off-springs by end of project period.</p> <p>To Train all those farmers earlier assisted by the National Poultry Development Project and also assist in exchanging cockerels and pullets.</p>	<p>5685 farmers were trained in field days that totalled to 196 out of targeted 342. 662 farmers trained off-farm. 520 trained through group and farm visits. 87 trained through tours.</p> <p>41 given to groups. 2000 offsprings.</p> <p>16 galla bucks exchanged.</p> <p>300 off-springs recorded by end of project period.</p> <p>A total of 3786 cockerels and pullets exchanged of which IFAD contributed 1388 for the school programme.</p> <p>8000</p>	<p>Increased Awareness and knowledge on rearing of small livestock.</p> <p>Improved breed; Increased sheep population; Higher income; Improved nutrition.</p> <p>Improved breed; Increased sheep population; Higher income; Improved nutrition.</p> <p>Improved breeds; Increased income; from increased layer/meat birds; Improved nutrition.</p> <p>Improved animal health</p>
No. of poultry vaccinated				

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<b>Component and Specific Objective</b>	<b>Designed Activities</b>	<b>Target at Design</b>	<b>Achievement/Output</b>	<b>Observable Impact</b>
	No. of beehives distributed No. of apiaries established Amount of honey production		96 8 5	-adoption of bee-keeping; -increase in apiculture; -increased income.
<b>Group Development</b> Promotion of and assistance to water users associations, village health committees and groups for farming and off farm enterprises.	Group mobilization and organization - Water users groups - Health groups - Agricultural groups - Savings and credit and others	11 6 328 100	206 23 271 607	Promoted community participation where beneficiaries have representation in project management committees and cost sharing in cash and labour and decision-making through constitution and by-laws, which ensured sustainability.
Strengthening of the Department of Social Services field services.	<b>Group Registration</b>	No targets	1207	Groups operate running bank accounts with funds for operation and maintenance of project activities. Has also enabled DSS gain accessibility to groups for supervision and follow-up visits.
	<b>Training</b> - DSS staff - SDA/Adult Teachers - Chiefs/Assistants - Group leaders - Group members	No targets	16 50 40 687 12500	DSS staff able to implement the project effectively and beneficiaries handle project activities for better self-improvement towards poverty alleviation.
	<b>Supervision and follow-up visits</b> - DSDO - DSDA - SDA	90 214 471	57 151 269	Beneficiary participation demonstrated in design, implementation, cost sharing, conflict resolution, operation and maintenance of their activities.
	<b>Procurement</b> - Vehicle - Computer - Photocopier	2-4WD 1 1 1	1 1 1	DSS able to access groups for training, supervision and conflict resolution and groups monitoring eased due to available data bank in the computer.

Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
<b>Project Coordination and Strengthening</b> 1. Strengthened DFRD. 2. Effective Project Coordination, Management, Monitoring and Evaluation	1. Appointment of DPO, ADPO and Accountant. 2. Formation of Project Management Section at MPND Hqs. 3. Formation of NSC and PMC 4. Construction and equipping of DPU/DIDC 5. Undertaking of a Baseline Survey. 6. Training of Staff 7. Establishment and Implementation of effective M&E system. 8. In-depth studies on specific project areas. 9. Annual Reviews and Surveys. 10. Undertaking of MTR 11. Preparation and Submission of AWPBs and	1 DPO, 1 ADPO and 1 Accountant  An Area Based Section.  A NSC and PMC  1 DPU/DIDC in Nyeri 1  -  Dynamic System  Were to be determined by specific sector needs. 1 per FY (12)  1 during Y4. 12 each (1 @ in every FY).  To all 5 implementing departments. 1 @ Year (12).	Only DPO has been on the job uninterruptedly.  The section was established.  Committees were formed  A DPU/DIDC has been constructed.  A Baseline Survey was undertaken though late.  Staff have been trained. Indicators developed. None  None  12  1  12  Varied funding levels from year to year	Office of DPO has been effective in project coordination and management. Lack of constant M&E officer was detrimental to establishment of M&E system; The section supported the project but Frequent transfers affected its work and M&E was not established; PMC was supportive of the project. NSC over-delegated its roles; DPU has been instrumental to District planning and the DIDC has become a District Resource Centre; Lack of BLS meant lack of indicators and benchmarks, leading to difficulties in MTR, Evaluation, Impact studies etc; All officers who worked in the Project have been trained on relevant areas- see training schedule; Lack of elaborate M&E system led to overlooking lots of project achievements.  Annual Reviews served as review forums and brought together implementing officers and beneficiaries for preparation of AWPBs;  Inadequate funding as a result of Liquidity problems in the District Treasury hindered project implementation; Non-submission or Lack of Audit Reports led to project suspension (1996). Later improved.

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Component and Specific Objective	Designed Activities	Target at Design	Achievement/Output	Observable Impact
Rural Credit and Input Supply	<p>Progress Reports</p> <p>12. Ensuring adequate funding levels</p> <p>13. Undertaking timely and effective audits</p> <p>1. Availing credit services and input supplies to beneficiaries.</p> <p>2. Training beneficiaries on on-farm and off-farm development opportunities</p>	<p>1. Establishment of Pilot Scale Smallholder Loan Programme.</p> <p>2. Provision of inventor financing to KGGCU</p> <p>3. Provision of specialised services, e.g training, surveys, etc.</p> <p>4. Financing of social infrastructure (rural water supply, VIP etc.</p>	<p>Done with mixed results.</p> <p>Components cancelled by CPR in 1995/1996 before it took off due to envisage shortage of funds in the project account.</p>	<p>Beneficiaries initiated their own savings and credit scheme, which is revolving US\$ 50,000; It has 240 member groups with 100 groups being active;</p> <p>The scheme requires to be strengthened by capacity building of the management team of the scheme because it lacks experience &amp; skills to manage such a rural finance institution.</p>

**Annex VII: Project Costs - IFAD, GOK and Beneficiaries Contributions, - in Kshs)**

Component	Planned Cost ('Million')	Actual Expenditure	BSF Contribution	GOK Contribution	Beneficiaries Contribution
<b>A. Farm and Crop Development</b>	<b>17.74</b>	36,023,153	29,011,156	7,011,996	0 <sup>7</sup>
(i) Irrigated Crop Production	12.77				0
(ii) Extension and Adaptive Research	4.97				0
<b>B. Health and Sanitation</b>	<b>42.34</b>	<b>137,322,027</b>	<b>112,683,099</b>	<b>24,638,929</b>	<b>66,171,590</b>
(i) Primary Health Care	29.96	36,185,601	29,050,596	7,135,005	18,398,092
(ii) Domestic Water Supply	12.38	101,136,426	83,632,503	17,503,924	47,773,498
<b>Institutional Support</b>	<b>9.60</b>	<b>24,386,102</b>	<b>39,793,666</b>	<b>8,077,436</b>	<b>0</b>
<b>Group Development</b>	<b>6.77</b>	<b>23,937,764</b>	<b>20,783,978</b>	<b>3,153,786</b>	<b>0</b>
(i) Group Services	2.17	23,937,764	20,783,978	3,153,786	0
(ii) Special Financing Facility	4.60				
<b>Total Baseline Costs</b>	<b>76.45</b>				
Price Contingencies	2.65				
Price Contingencies	19.66				
<b>Total Project Costs/Expenditures</b>	<b>98.76</b>	<b>245,154,048</b>	<b>202,271,699</b>	<b>42,882,147</b>	<b>66,171,590</b>

**Appendix 1: Domestic Water Supply - Water Projects History, Costs and Beneficiaries Contributions**

Project Name	Location/Sub-location	Year Started <sup>8</sup>	Starting Agency	Year IFAD Came in	Total KM Covered (Main Line)	No. of Distribution Lines (No. and Total Length) <sup>9</sup>	KM funded by IFAD	Total Project Cost (Kshs)	
								IFAD	Beneficiaries
Watuka Water Project	Gatarakwa/Watuka	1983	Community	1992	4.50	5 No. of 40.5km	25km	6,289,578	9,812,792
Mwea B Water Project	Gakawa/Kahurura	1994	Community	1998	2.52	10 No. of 9.74km	12.468km	1,584,974	1,157,437
Kaga Water Project	Gakawa/Kahurura	1995	Community	2000	4.40	8 No. of 23.06km	17.418km	3,562,715	2,353,829
Waraza Lusoi water Project	Kabaru	1984	Community	1995	4.50	8 No. of 45km	13.9km	6,775,538	
Lamuria Water Project	Gataragwa/Kamaliki	1992	Community	1992	7.23	14 No. of 10.9km	7.290	1,575,994	648,458
Gataragwa Mugunda Water Project	Gataragwa	1984	Community	1995	9.30	37 No. 126km	16.853	11,979,348	6,982,376
Simbara Amboni/Mbodeni	Mweiga	1995	Community	1998	8.81	18 No. of 17.35km	12.966	2,986,325	645,008

<sup>7</sup> In Farm and Crop Development and Group Development components, it is indicated that beneficiaries' contribution was nil. Actually there was but there was no system of capturing it.

<sup>8</sup> The year the project started refers to the year it was registered with the Department of Social Services. In some projects, communities started working on them as back as early 1970s.

<sup>9</sup> Distribution Lines refer to Major Distribution Lines of pipe diameter of 50mm and above. There are other sub-branches from the main distribution lines of less than 50mm diameter that are not captured here. Some of these are of short distances, serving one or two beneficiaries.

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Simbara Water Project	Mweiga/Kamatongo	1997	Community	2000	12.5	24 No. of 33.8km	12.5	12,030,725	50,000
Thungare Water project	Thego/Thungare	1998	Community	1998	8.10	3 No. of 5.8km	8.10	936,200	987,281
Karurumo Gekanga	Kabaru/Nda thi	1992	Community	2000	3.79	3No. of 12.76km	11.922km	2,345,554	829,616
Kabunda Water Project	Kiamathaga/Kabende ra	1984	Community	1998	3.28	11 No. of 16.76km	15.804	1,402,261	2,002,049
Maka water project	Gakawa/Gethima	1984	Community	1998	6.35	22 No. of 16.22km	26.718	2,718,898	3,511,274
Kaburaine water Project	Narumoru/Kaburaine	1182	Community	1992	10.3	5 No. of 19km	23.6	8,959,542	3,207,607
Kirinyaganyge Water Project	Narumoru/Rongai	1982	Community	1996	3.00	3 No. of 12km	5.892	2,092,473	2,735,200
Gitwe Water project	Narumoru/Kaburaine	1985	Community	1998	3	25 No. of 19km	5.7	865,600	1,293,346
Kabendera Water Project	Kiamathaga/Gkamba	1985	Community	2000	2.82	6 No. of 14.22km	3.450	1,206,350	350,941
Narumoru gothi water project	Narumoru	1983	Community	1994	4.46	6 No. of 13.7km	4.794	4,351,610	-
Kamangua Water Project	Gakawa	1996	Community	2000	9.6	4 No. of 14.8km	7	6,668,078	1,282,512
Kinaki Water project	Thegu	1995	Community	2000	9.56	9 No. of 28km	19.02	6,271,266	202,142
Orutagwo Mweruti Water Project	Kabaru	1996	Community	1998	4.00	3 no of 3km	0.948	146,275	310,376
Mwicheiri Water Project	Kiamathaga		Community	1998	9.56	9km of 28km	21.756	6,271,266	3,411,254
<b>Total</b>								<b>91,020,570</b>	<b>47,773,498</b>

**Appendix 2: Primary Health care – Health facilities and Beneficiaries Contribution**

**1. Gakawa Dispensary.**

Kind of Contribution	95/96	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	198,000			533,871	654,103	1,022,256	1,140,683	<b>3,548,913</b>
Material/Labour							248,332	<b>248,332</b>
Harambee/Donations							120,000	<b>120,000</b>
Cost of land (3.6 acres @ 150,000 per acre in 1990)								<b>540,000</b>
<b>Total Contribution</b>	<b>198,000</b>	-	-	<b>533,871</b>	<b>654,103</b>	<b>1,022,256</b>	<b>1,509,016</b>	<b>4,457,245</b>
Purchase Of Drugs (Value In Kshs)				49,419	96,818	144,077	228,226	<b>518,540</b>
Wages and Salaries Allowances	60,000			72,000	130,600	140,000	177,986	<b>580,586</b>
Maintenance	20,000			90,749	140,291	119,169	0	<b>370,209</b>
<b>Total Expenditure</b>	<b>80,000</b>	-	-	<b>212,168</b>	<b>367,709</b>	<b>403,246</b>	<b>406,212</b>	<b>1,469,335</b>

**2. Burguret Dispensary.**

Kind of Contribution	95/96	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	0	0	61,090	147,639	212,876	228,121	254,642	904,368
Material/Labour			130,987					130,987
Harambee/Donations								0
Cost of land (2.7 acres @ 70,000 per acre)	192,500							192,500
<b>Total Contribution</b>	<b>192,500</b>	-	-	<b>533,871</b>	<b>654,103</b>	<b>1,022,256</b>	<b>1,509,016</b>	<b>1,227,855</b>
Purchase Of Drugs (Value In Kshs)	-	-	-	15,450	17,710	43,683	58,717	135,560
Wages & Salaries Allowances	-	-	19,000	25,000	11,069	12,069	142,600	209,738
Maintenance	-	-	-	6,000	5,000	5,000	9,800	25,800
<b>Total Expenditure</b>	-	-	<b>19,000</b>	<b>46,450</b>	<b>33,779</b>	<b>60,752</b>	<b>406,212</b>	<b>371,098</b>

**3. Naromoru Dispensary**

Kind of Contribution	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (cost sharing)	387,600	446,400	447,600	458,412	698,400	576,385	3,014,797
Material/Labour	240,000	13,000	124,800	172,240	36,000	0	586,040
Harambee/Donations	0	0	124,876	30,716	0	0	155,592
Cost of land (3 acres @ 184,800 per acre)	0	0	0	0	0	0	544,400
<b>Total Contribution</b>	<b>627,600</b>	<b>459,400</b>	<b>697,276</b>	<b>661,368</b>	<b>734,400</b>	<b>576,385</b>	<b>4,300,829</b>
Purchase Of Drugs (Value In Kshs)	6,600	45,665	36,000	60,000	192,000	202,825	543,090
Wages & Salaries Allowances	53,760	74,760	74,900	108,420	120,480	135,480	567,800
Maintenance	12,400	23,200	21,200	27,980	38,500	157,695	280,975
<b>Total Expenditure</b>	<b>72,760</b>	<b>143,625</b>	<b>132,100</b>	<b>196,400</b>	<b>350,980</b>	<b>496,000</b>	<b>1,391,865</b>

**4. Kiamathaga Dispensary**

Kind of Contribution	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	-	96,309	228,121	354,640	679,070
Material/Labour	-	-	80,000	-	80,000
Harambee/Donations	-	-	-	-	0
Cost of land (3 @ 150,000 per acre)	450,000	-	-	-	759,070
<b>Total Contribution</b>	-	-	-	-	-
Purchase Of Drugs (Value In Kshs)	-	10,330	38,150	55,600	104,080

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Wages & Salaries Allowances	-	43,000	105,060	120,770	<b>268,830</b>
Maintenance	-	5,000	15,000	29,800	<b>49,800</b>
<b>Total Expenditure</b>	-	<b>58,330</b>	<b>158,210</b>	<b>206,170</b>	<b>422,710</b>

**5. Wendiga Dispensary**

Kind of Contribution	91/92	95/96	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	-	27,000	72,000	81,500	102,300	138,900	201,400	273,100	<b>896,200</b>
Material/Labour	-	130,987	-	-	-	-	-	-	<b>130,987</b>
Harambee/Donations	-	150,000	-	-	-	-	-	-	<b>150,000</b>
Cost of land (2 acres @ 75,000 per acre)	150,000	-	-	-	-	-	-	-	<b>150,000</b>
<b>Total Contribution</b>	<b>150,000</b>	<b>307,987</b>	<b>72,000</b>	<b>81,500</b>	<b>102,300</b>	<b>138,900</b>	<b>201,400</b>	<b>273,100</b>	<b>1,327,187</b>
Purchase of Drugs (Value In Kshs)	-	-	-	6,391	8,000	13,000	21,000	28,000	<b>76,391</b>
Wages & Salaries Allowances	-	-	34,000	34,000	36,000	40,000	48,830	76,000	<b>268,830</b>
Maintenance	-	-	6,000	6,000	6,000	12,600	18,000	4,023	<b>52,623</b>
<b>Total Expenditure</b>	-	-	<b>40,000</b>	<b>46,391</b>	<b>50,000</b>	<b>65,600</b>	<b>87,830</b>	<b>108,023</b>	<b>397,844</b>

**6. Bellevue Dispensary**

Kind of Contribution	91/92	95/96	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	-	-	-	60,101	103,400	234,000	250,174	310,035	<b>957,710</b>
Material/Labour	-	60,000	-	-	-	-	-	-	<b>60,000</b>
Harambee/Donations	-	-	90,000	-	-	-	-	-	<b>90,000</b>
Cost of land (4 acres @ 80,000 per acre)	320,000	-	-	-	-	-	-	-	<b>320,000</b>
<b>Total Contribution</b>	<b>320,000</b>	<b>60,000</b>	<b>90,000</b>	<b>60,101</b>	<b>103,400</b>	<b>234,000</b>	<b>250,174</b>	<b>310,035</b>	<b>1,427,710</b>
Purchase Of Drugs (Value In Kshs)	-	-	-	10,200	9,800	20,000	28,100	36,105	<b>104,205</b>
Wages & Salaries Allowances	-	-	-	28,500	35,700	55,100	58,200	58,200	<b>235,700</b>
Maintenance	-	-	-	35,000	27,502	16,135	27,866	55,125	<b>161,628</b>
<b>Total Expenditure</b>	-	-	-	<b>73,700</b>	<b>73,002</b>	<b>91,235</b>	<b>114,166</b>	<b>149,430</b>	<b>501,533</b>

**7. Warazo Health Centre**

Kind of Contribution	1980's	94/95	95/96	96/97	97/98	98/99	99/2000	2000/2001	2001/2002	Total (Kshs)
Beneficiary Contribution Cash (Total)	-	88,770	105,220	301,191	502,125	575,000	691,050	895,770	-	<b>3,159,126</b>
Material/Labour	-	80,000	-	-	-	-	-	-	-	<b>80,000</b>
Harambee/Donations	-	-	-	-	200,000	-	-	-	-	<b>200,000</b>



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Maka	1984	480	450	300	25,000	300	100	22no of 20 km	75
Kaga	1995	245	309	185 (200)	20,000	1,295	100	8no of 23.08km	22
Mwiciiri	1984	600	450	450	30,000	300	200	22no of 28km	280
Kabunda	1989	1,000	400	250	20,000		50		250
Kabendera	1984	300							
Kamangura	1997	1,200	300	70	10,000	-	100	3no of 3.204km	
Gikanga	1992	270	253	180	14,000	300	50	3N0. OF 4.5KM (2.5KM complete)	50
Simbara Kamatongu	1997	1,200	360	220	5,300	-	-	-	-
Urutagwo Mwiriti	1996	25	25	24	35,000	-	50	3no. not laid	21
Kinaki	1995	250	150	50	15,000	-	-	9no of 28km	
Lamuria	1992	250	125	125	10,000	-	100	12no of	125
Nanomoru Aguthi	1983	1200	800	600	8,900		10	Current is furrows	500

**Annex VII: Project Equipment Inventory (per Ministry)**

Ministry	Equipment Procured	Quantity	Station of Use	Condition of the equipment.
<b>Ministry of Finance and Planning</b>	Vehicles	2	Headquarters (1) District (1)	Both of them are in usable condition but approaching disposal.
	Computers	4	Headquarters (2) District (2)	In good working condition.
	Fax machines	2	Headquarters (1) District (1)	One in the Hqs has been disposed and one in the District still in use.
	Photocopiers	2	Headquarters (1) District (1)	One in the Hqs has been disposed and one in the District still in use.
	See Appendix 1 for details			
<b>Ministry of Health</b>	Vehicles	3	District	In good condition
	Motorcycles	5	District K/East	In Working condition
	Steel cabinet	5	District K/West	Good
	Wooden cabinet	3	District	Good
	Typewriter	3	District (2) K/East (1)	Working
<b>Ministry of Agriculture and Rural Development</b>	Duplicating machine	1	District	Working
	Printer	1	District	Working
	Computer	2	District	Working

Ministry	Equipment Procured	Quantity	Station of Use	Condition of the equipment.
Ministry of Environment and Natural Resources	Bicycles	58	Divisions	Working
	Home economics kits	3	District/Division	Good
	Photocopier stand	1	District	Good
	Altimeter	1	District	Good
	Plotter	1	District	Good
	Ox – Drawn Mainz	1	Division	Not known
	Ox – drawn ranger	1	Division	Not known
	Ox – carts	5	Division	Good
	Chairs	48	District/Division	Good
	Desks	29	District/Division	Good
	Filing cabinets	10	District/Division	Good
	APC-UPS Backup	1	DWO's Office	Good
	Hewlett-Packard 4100 Printer	1	DWO's Office	Good
	Topcon Optical Theodolite Model TL-6G S/No. Y92685	1	DWO's Office	Good
	Altimeters, thommen S/Nos. 808014 and 808141	2	DWO's Office	Good
	Drawing Board	1	DWO's Office	Good
	Photocopier Mode 3722 Nashuatec S/No. Apo1010236 NRG27227 – CMR 221ID	1	DWO's Office	Good
	GK ABOE	1	DWO's Office	Good
	Personal Computer with monitor and keyboard	1	DWO's Office	Good
	Portable computer notebooks	2	DWO's Office	Good
Portable Printers	2	DWO's Office	Good	
Hewlett-Packard 4100 Printer	1	DWO's Office	Good	
Portable Computer notebook	1	DWO's Office	Good	
Portable printer	1	DWO's Office	Good	
APC-UPS Back UPS	2	DWO's Office	Good	
Neoh Super Diazo Dry Printing machine	1	DWO's Office	Good	
X-Plan 3601 Planmeter	1	DWO's Office	Good	
Prismatic Compass	1	DWO's Office	Good	
Vertical Plan Filing Cabinet	1	DWO's Office	Good	
GK A130E-Toyota Hilux 2.8 D Model LN 166 Engine NO. 3L5092442 Chassis No. LN 1660059134	1	DWO's Office	Good	
GK Y968 Mitsubishi P/Up chassis No. B31000011 TP 00165 Engine No. 49635L 9435	1	DWO's Office	Good	

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Ministry	Equipment Procured	Quantity	Station of Use	Condition of the equipment.
	Vertical Plan filing cabinet	1	DWO's Office	Good
	Duplicating machine	1	DWO's Office	Good
	Filing cabinet	7	DWO's Office	Good
	GK Y001 M/cycle Yamaha DT 125	1	DWE	Serviceable
	GK X391 M/Cycles Yamaha DT 125	1	Kieni East	Serviceable
	GK X400 M/Cycles Yamaha DT 125	1	Kieni West	Serviceable
	Executive Chair (swivel)	1	DWO's Office	Good
	Casio Printing Calculator	2	DWO's Office	Good
	Executive table	1	DWO's Office	Good
	Metal Cabinet	1	DWO's Office	Good
	Executive chairs (Wooden)	6	DWO's Office	Good
	Conference table	1	DWO's Office	Good
	Wooden Office table	2	DWO's Office	Good
	UPS 450 V Model 400 250	1	DWO's Office	Good
	Computer Fusitec Pentium Monitoring (Philipp)	1	DWO's Office	Good
	Printer – Epison LQ 2170 dot matrix A3	1	DWO's Office	Good
	Poker vibrator (Robin EY 200) 37/400 kw/kpm	1	DWO's Office	Good
	Concrete mixer	1	DWO's Office	Good
	Measuring cylinder	1	DWO's Office	Good
	Max and Min thermometers (5)	5	DWO's Office	Good
	Computer table	1	DWO's Office	Good
	Computer chair	1	DWO's Office	Good
	Spiral Binder (IBICOA0)	1	DWO's Office	Good
	Guillotine Paper trimmer	1	DWO's Office	Good
	Dewatering pump (petrol powered cap 10m)	1	DWO's Office	Good
	Evaporation pans	3	DWO's Office	Good
	Motor Vehicles GK Y968 Mitsubishi L200 P/Up 4WD	1	DWO's Office	Good

Appendix 1: Primary Health Care – List Of Surgical, Medical and Other Equipment

Health Equipment	Units of issue	Gakawa Disp	Burguret Disp	Naromoru SHC	Warazo HC	Bellevue Disp	Wendiga Disp	Island farms Disp	Endarasha HC	Kiamathaga Disp	DMOH	Total Quantity
Speculum (very large)	No. 3	3	3	5	5	3	3	2	5	2		32
Diagnostic set	No. 1	1	1	0	1	1	1	1	1	1		8
Screen Ward metal	No. 1	1	0	1	1	1	0	1	1	1		7
Examination couch metal with head rest	No. 0	0	1	0	1	0	0	0	0	1		3
Scale infant spring type hanging with trousers	No. 1	1	1	1	2	1	1	1	1	1		10
Autoclave electric	No. 0	0	0	0	0	0	0	0	1	0		2
Sunction machine manual	No. 1	1	0	1	1	0	0	0	1	0		4
Adult weighing scale	No. 1	1	1	0	1	0	0	0	0	1		4
Electric sunction machine	No. 0	0	0	1	1	1	0	0	1	0		4
Dissecting forceps	No. 5	5	5	6	6	5	5	5	6	5		48
Delivery bed	No. 1	1	0	1	1	0	0	0	1	0		4
Baby weighing scale	No. 1	1	1	2	1	1	1	1	1	1		10
Adult Ambu bags	No. 1	1	1	1	2	1	1	1	2	1		11
Padiatric Ambu bags	No. 1	1	1	1	1	1	1	0	1	0		6
Tray oblong with lid	No. 0	0	0	0	1	0	0	0	1	0		2
Kocher forceps transverse point 13cm	No. 2	2	2	2	2	2	1	1	2	2		18
Kidney dish	No. 1	1	1	0	1	0	0	0	1	1		4
Microscope	No. 0	0	0	0	0	0	0	0	1	0		1
Sterilizing drums	No. 0	0	0	0	2	0	0	0	2	0		4
<b>Other Equipment</b>												
Photocopying machine	No. 0	0	0	0	0	0	0	0	0	1		1
Tele video	No. 0	0	0	0	0	0	0	0	0	0		2
TV, VCR	No. 0	0	0	0	0	0	0	0	0	0		1,1
Desktop computer	No. 0	0	0	0	0	0	0	0	0	0		1
Lap top computer	No. 0	0	0	0	0	0	0	0	0	0		1
Printer	No. 0	0	0	0	0	0	0	0	0	0		2
Overhead projector	No. 0	0	0	0	0	0	0	0	0	0		2
Wall screen	No. 0	0	0	0	0	0	0	0	0	0		2
Metal cabins	No. 0	0	0	0	0	0	0	0	0	0		4
Vehicles	No. 0	0	0	0	0	0	0	0	0	0		1
Motorbikes	No. 0	0	0	0	0	0	0	0	0	0		3
Bicycles	No. 0	0	0	0	0	0	0	0	0	0		58

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**Annex IX: Project Staff Training and Effects to the Project Implementation.**

<b>Ministry</b>	<b>Officers Trained (Titles)</b>	<b>Area of training</b>	<b>No. of years the officers have worked in the project the effect of training on the Project</b>
<b>Ministry of Finance and Planning</b>	District Programme Officer	<ol style="list-style-type: none"> <li>1. Poverty Alleviation</li> <li>2. Planning and Budgeting</li> <li>3. Rural Credit Management</li> </ol>	<p>The DPO was the Project Manager at the District level. He has been in the project during the entire project life. There (he) has been:</p> <ul style="list-style-type: none"> <li>- Better plans and implementation of the project components.</li> <li>- Assisted in design of CKDAP</li> <li>- Principal trainer in Rural Credit design and administration to various savings and credit groups.</li> <li>- Assisted during the design of credit component for CKDAP.</li> <li>- Coordination of PRSP preparation for Nyeri District</li> <li>- Key participant in development of BSF phase II strategy paper</li> </ul> <p>Entire project period</p>
	Ass. District Programme Officers (3) <sup>10</sup>	<ul style="list-style-type: none"> <li>- Statistics and Statistical Analysis</li> <li>- Project Cycle Management</li> </ul>	<p>The ADPOs were in charge of M&amp;E system. The creation of more districts saw the first 2 ADPOs being deployed as DDOs in other districts, leaving project without M&amp;E officer until 1999 following the IFAD Evaluation Recommendation. There has not been any meaningful M&amp;E system during the entire project period.</p>
	Desk Officers (6)	<ul style="list-style-type: none"> <li>- Budgeting and Planning</li> <li>- Monitoring and Evaluation</li> <li>- Poverty Alleviation</li> <li>- Rural Credit Management</li> </ul>	<p>There have been 6 desk officers at different times during the project period. The officers were in charge of project coordination and management and some were trained in areas indicated herein. High turn over of these officers adversely affected the project management.</p>
<b>Ministry of Environment and Natural Resources</b>			
<b>Ministry of Health</b>	14 DHMT members	Primary Health Care, Health Information System and Project Design and Management.	The DHMT members are in charge of health management and administration in the district. They were therefore instrumental in the implementation of PHC component of the project.
	About 60 TOTs (Among them Nurses and Public Health Technicians)	Public Health, Management of Bamako Initiative and other Related Matters	Nurses and Public Health Technicians were grassroots implementers of PHC component. The training enabled them to serve in turn as trainers of VHCs, CHWs and assist in establishment of Bamako Initiatives.
	About 40 Front Line Staff and 12 Divisional SMS	Various Extension and Home- Economics Topics	Training of beneficiaries on various health issues.
<b>Ministry of Agriculture and Rural Development</b>	Desk Officer and an Implementing Officer	Food security, storage protection, post harvest loss prevention technology and storage management.	The officers have been in the project for the entire project period. Their participation in the project has seen the home economics subcomponent record recommendable impacts with beneficiaries. Notably, management of kitchen gardens, new technologies in food preservation etc have been impressive.

<sup>10</sup> Numbers in bracket indicate number of officers held the post (e.g. there has been 3 ADPOs and 6 Desk Officers at different times of the project).

<b>Ministry of Home Affairs Heritage and Sports</b>	District Social Development Officer	<ol style="list-style-type: none"> <li>1. Poverty Alleviation</li> <li>2. Bookkeeping and Accounting</li> <li>3. Participatory Rural Appraisal and Training of Trainers - Methods</li> <li>4. Rural Micro-enterprises</li> <li>5. Project Development and Management</li> <li>6. Monitoring and Evaluation</li> <li>7. Social Work</li> </ol>	<p>The officer has been in the project for the entire project life. He has been the implementing officer of the Group Development component and a principal trainer of project affiliated groups in different areas of group dynamics. Notably, he trained groups on Bookkeeping and Accounting, Formulation of By Laws, Conflict Resolutions etc. The officer has been instrumental in designing Kient Revolving Fund (KIRFU) and training members on Rural Credit Management.</p>
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Note: All Project Officers were trained on different computer packages.

**Annex X: Beneficiaries Evaluation Participatory Workshop**

As an integral in the preparation of the Project Completion Report, a two days Beneficiaries Evaluation Workshop was held and attended by beneficiary representatives from water projects, health facilities and home economics and agriculture groups. Implementing and desk officers also attended. The objective of the workshop was to facilitate beneficiaries to discuss and agree on the impacts/outcomes of the various project interventions as they, (beneficiaries) perceive them. Workshop participants were divided into three main groups namely (1) Domestic and Irrigation Water Supply group (2) Primary Health Care group, and (3) Agriculture and Home Economics group. In each group, were officers from specific departments to guide discussions and interpret the questions. Beneficiaries elected the chairperson and a secretary who took notes on deliberations and liaised with secretariat for input. What follows below is directly from beneficiaries' deliberations. No editing has been done.

**Appendix 1: Workshop Proceedings and Perceived Impacts by Beneficiaries**

**A. Workshop Discussion Topics**

Each of the above groups discussed the following basic areas:

- (i) Identification of actual and potential utilization of project services by beneficiaries
- (ii) Identification of strategic partners created as a result of project interventions and innovative features introduced in the project
- (iii) Impact/outcome of project interventions for each component
- (iv) Gender mainstreaming – How are women benefiting from the project
- (v) Assessment of sustainability of project interventions
- (vi) Statement of life style before and after project intervention, focussing in the areas of
  - School going rate
  - Ability to pay school fees
  - Diseases and cost sharing
  - Feeding programmes
  - Employment and Migration

**B. Beneficiaries Responses to the Topics**

**1. Domestic and Irrigation Water Supply Group**

**Question (i). Identify actual and potential utilisation of project services by beneficiaries.**

- (a) Project Services is to supply water to as many homesteads as possible for purposes of minor irrigation, domestic use and livestock.
- (b) Actual Utilisation: This project has made it possible to connect water to approximately 3806 homesteads, using it for the three purposes. A new project could assist complete the uncompleted water projects.

**Question (ii). Identify strategic partners created as a result of project interventions and new methods/features introduced in the project.**

**(a) Strategic Partners**

- (i) AND Caritas
- (ii) Action Aid
- (iii) Kenya Wildlife Services
- (iv) KIREFU
- (v) FAO

Although these organisations have been in the area, their communal involvement has increased as a result of increased water supply.

**(b). Area of participation**

AND Caritas is providing credit facilities for farming and construction of water storage tanks in a process known as village Bank. Action Aid is providing funds for building storage tanks in selected primary schools and for some women groups. It is also assisting in building classrooms in selected areas. Kenya Wild Life Service has undertaken to construct roads leading to intakes, which are situated inside forest area. It is organising local tourism for some communities participating in the project.

KIREFU is providing farmers with savings and credit facilities where credit attracts only a minimal interest. CCF assists nursery school while FAO provides financial assistance and marketing services to farmers.

**(c) New methods innovative features introduced by the project**

**Water sprinklers and stands:** Jua Kali artisans are now making cheaper water sprinklers and stands.

**Fish farming:** Some farmers have dug fishponds in their homestead as part of their kitchen garden. Agrovet shops have cropped up in the project area to meet demand for farming chemical and inputs by farmers.

**Farming:** Organic farming is being practised in some areas. Horticultural farming is widely undertaken particularly by youth who used to live idle life.

**Question (iii). List all impact/outcomes you may think of as a result of the project under the Domestic Water Supply.**

**Impact:** Live Style improved, balanced diet available, personal cleanliness achieved, school attendance improved, disease occurrence reduced, purchasing power improved e.g. Financing cattle dip, AI, faster development of shopping centres, Religious activities intensified where many church houses have been build.

**Intervention and Target:** to provide water supply through gravity flow to cover 21 water projects which will eventually provide 10,455 homestead with domestic irrigation and livestock watering.

**Current Status:** Out of 21 water projects 11 are complete and 10 have achieved some level of completion. The remaining portion of uncompleted projects ranges from 10%-90% in individual projects.

**Question (iv): Gender mainstreaming: How men and women benefited fro the project**

**Benefits for men accrued from Water Supply**

- a. Establishment of good families
- b. Feeding his family without constraints
- c. Erecting good shelter for his family
- d. Provision of good education to his family
- e. Improved methods of farming (livestock/agriculture)
- f. Provision of basic requirements to his family
- g. Development capacity of the man has improved
- h. Leading a happy life with his family
- i. Healthy and clean
- j. He has ensured stability
- k. Man has knowledge
- l. Provision of security to families
- m. Become active; man has become more involved to his family activities more than ever before
- n. Man has even to pay greater attention to his family without constraints and frustration
- o. Man has been able to increase management efficiency for his family due to increased resources
- p. Drunkenness has decreased due to increased involvement in farming activities at home

**Benefits for Woman accrued from Water Supply**

1. Women have benefited from the projects for they used to carry water on their backs and now they have water just outside their houses.
2. Children now are better for they are obedient, healthy and happy
3. Women now play the role of minimising diseases because of having and using plenty of water
4. Children have really changed their standard of living because they do not fetch water after school as they used to do before, instead use this time to study.
5. Women are now able to feed their children with balance diet. Water is used to establish kitchen gardens (green vegetables, rabbits, chicken etc).
6. As a whole women and children are now clean, healthy for they can afford to buy or to cater for all their needs
7. It was very serious issue when a pregnant woman did not have anybody to help her in fetching water. She had to carry water, which caused more problems. She can now get it outside her house.

**Question (v). Future plans for sustainability**

- a. Establish and empower WUA;
- b. Apply project by law;
- c. Continued training of artisan management committee and members;
- d. Establish 90% storage;
- e. Protects and improve water catchment;
- f. Protect and improve environment.
- g. Training of committees and artisans to ensure proper operation and maintenance of completed schemes. Target to provide skilled personnel.
- h. Training artisans and management committees;
- i. Water users association established.

**Proposed Strategies to meet target:**

Currently water is connected to 3806 homesteads leaving 6639 homesteads unconnected. To struggle to reach our target, WUAs will ensure continuous training of artisans, clerks and management committee. Beneficiaries should also be educated, on maintenance and operation of the project. Others are amend and improve by laws to enhance in line with water act and regulations

**Question (vi): Give statement of the lifestyles before and after project interventions (Indicators of change)**

- (a) **Feeding habits:** Families could not manage to get a balanced diet. Quite often they suffered effects of prolonged drought. They lived on starch food whenever available. At times they had to depend on relief foods and relied on wildlife meat during drought.
- (b) **Feeding habits after:** Feeding habits have changed for the better. Families can now manage to have balanced diet. Green foods can now be grown. Every homestead has one or two daily cows. Poultry is kept by every home. All kinds of grains and beans are grown in homesteads for domestic and marketing. Horticultural crops are grown extensively for food and marketing. Communities depend on relief foods. Fish farming is now minimal and is being adopted to provide protein and vitamins.
- (c) **School feed payment before:** Many parents or guardians were not able to pay school fees properly because they were unemployed. They could not earn enough for a living and their children dropped out of school due to non-payment of school fees and hunger. Families relied on livestock for an income, which perished during drought.
- (d) **School fees payments after:** Parents can now pay school fees regularly because they are able to earn an income from their farming activities all the year round.
- (e) **School going Rate Before:** School-going rate was poor. Parents defaulted in school fees payment. There were few schools, which were situated long distance apart. Many young children could not walk to those schools. Hunger and lack of uniform also affected school attendance.
- (f) **School Going Rate After:** School going rate has improved very much. Parents are able to pay school fees regularly. Parents have had capacity to build more schools and thereby reduced walking distances. There is enough food in the homestead. School involvement has increased very much as a result of improved incomes.

- (g) **Cost sharing Before:** Cost sharing was not voluntary. It was not acceptable due to lack of money. Public services like health care, veterinary services, security, etc were not available due to lack of money. Sick people died because they did not have money to buy necessary drugs. Livestock died because farmers could not afford dipping services. Daily farming deteriorated due to lack of A.I Services.
- (h) **Cost sharing After:** Cost sharing is acceptable and easy and affordable due to increased income resources. Farmers are now maintaining their cattle dips and can afford to hire veterinary services. Sick people can afford treatment even in private hospitals.
- (i) **Diseases Before:** People suffered from various diseases due to dirty drinking water and lack of nutrition. Livestock was dying as a result of drinking dirty water and some times they did not have enough water. Women often suffered backaches because of carrying water on their backs for long distances.
- (j) **Diseases After:** The community hygiene has improved. Diseases occurrence has dropped very much particularly water born diseases.
- (k) **Employment Before:** Economic activities were very poor as employment opportunities were not available. The community had to go far away to look for employment.
- (l) **Employment After:** Employment opportunities have improved. Many farmers are now self-employment. They have even acquired capacity to hire extra labour in their smallholdings because of growing horticultural food crops and daily farming. Small businesses and micro-enterprises have cropped up as a result of farming activities all year round.
- (m) **Immigration Before:** People who acquired farms earlier had to abandon them and migrate to urban areas to look for employment.
- (n) **Immigration After:** People are now settled in confidence and are even reluctant to sell their land. Since introduction of the project sale of land has become rare and very expensive. The youth are no longer going to towns looking for employment. They are now engaged in farming activities such as growing green food crops which have ready market.
- (o) **Personal hygiene Before:** The community were prone to diseases because of uncleanliness. They suffered from water borne diseases, skin diseases and some suffered from jiggers. They hardly washed their clothes and rarely had a bath because water was scarce. Personal hygienic trend was not optimistic. People were generally dirty.
- (p) **Personal Hygiene After:** The community is now clean in body and dress, water borne diseases have reduced due to availability of clean water. Personal hygiene has improved and people are interacting (in the community) with confidence because of improved health.
- (q) **Housing Before:** The community was living in primitive and unhygienic structures made of mud and grass.
- (r) **Housing After:** The community is living in improved houses, which are sometimes permanent, semi permanent and build of stones, timber or off cuts.
- (s) **Clothing Before:** The community was not able to buy several sets of clothes to maintain cleanliness. They wore torn and patched clothes and interactions were haunted because they were afraid of being noticed.
- (t) **Clothing After:** People can now buy more clothes and washing materials to maintain cleanliness in body and clothes.
- (u) **Social Activities Before:** Social activities were individual inspired activities. Lack of resources caused communities to shy away from social interactions.
- (v) **Social Activities After:** Communities are now interacting socially because they have resources and are ready to share and participate in social activities like weddings, new birth, bereavement, settling hospital bills etc.

### C. Problems as Sited by Beneficiaries

Increased horticultural production (cabbages, carrots, tomatoes, onions) with limited market has led to wastages and exploitation of farmers by middlemen. This leads to another demand for market research.

The road network in the project area is pathetic particularly, becoming impassable during rainy seasons. This is the same period when farming is beneficial yet produce goes to waste.

Improved incomes have led to immigration and associated social problems, such as alcoholism and prostitution with a danger of increasing cases of HIV/AIDS. Cases of child labour are also coming up during farm preparations, planting, weeding and harvesting periods. This is likely to affect gains already made in school enrolment.

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The following farmers from Domestic and Irrigation Water Supply participated in the discussion.

	<b>Name</b>	<b>Scheme</b>
1	David Wambugu kabue	Simbaba/Chairman Kamatongu
2	Loise Chege	Treasurer
3	Bildad Wangondu Maigua	Secretary
4	James Mukundi Njoroge	Mwea "B" Secretary
5	Mary Gathoni	Mwea "B" Chairman
6	Julius Muthia	Mwea "B" Chairman
7	Mrs Leah W Murebe	Kabunda Committee Member
8	Peter K. Kimunya	Watuka W. Chairman
9	Joseph Ndiritu Waitiki	Watuka Secretary
10	Lawrence Mathenge	Mwihuri Water project/Chairman
11	Francis Nderitu	Waraza Loisoi/Secretary
12	Peter M. Kibuka	Simbara Bondeni Water Project/Secretary
13	Gideon M Kinyua	Kirinyaga Wanyeki Water Project Chairman
14	Zipporah N. Kingori	Muririchwa Tank Women Group
15	Veronica N. Githinji	Warazo Loisoi Project Women Rep.
16	Josphat Wahome	Gakanga Chairman
17	Ann Waithiegeni Kigo	Naromoru Aguthi Water project Treasurer
18	Joseph Githumbi Kironji	Naromoru Aguthi Water Project Chairman
19	Earnest Githinji Ndegwa	Thungari Water project Secretary
20	Justus Marangu	Mwihuri Water Project/Treasurer
21	James Ndegwa Kahithia	Kamburaini Water Project
22	Cornelius Muriithi	Kaga Self Help Water project

## 2. Primary Health Care Group

**Objective:** Enable the beneficiaries to be able to discuss and agree on impacts and outcomes or failures of project intervention in health components

**Question 1. Identify actual and potential utilization of project services by beneficiaries.**

<b>Project services</b>	<b>Actual utilization</b>	<b>Potential utilization</b>
1. Trainings		
• Staff	- Staff has been trained severally and updated. All services are now available	- More outreach services required form Health units
• Management committee	- Trained on management skills, performing well etc	- Management of other similar own projects improved
• CHWs/VHCs/TBAs	- Trained and rendering voluntary services - Drop out rate is high	- Developing of IGAs required to retain more CHWs - Need to have regular training of CHWs - Provide bicycles to CHWs to make them reach more people - To CHW tours to other areas.
2. Maternity	- Operational but equipments were provided late - Staff development minimal	- More staff training in maternal care and equip the maternity units - Need for standby ambulances for referral cases to main hospitals - Improve access roads for easier transportation of patients from facilities to the main roads
3. Bamako Initiative (BI)	- 4 operational - Renting premises a problem	- Community Pharmacy attendants to be paid allowances

	<ul style="list-style-type: none"> <li>- Misappropriation by members of BI</li> <li>- Drop out rate high</li> </ul>	<ul style="list-style-type: none"> <li>pegged on drugs sold</li> <li>- Improve accountability of funds generated</li> <li>- Start BIs on basis of merry go round as IGAs</li> <li>- Project to provide loans for BIs with repayment at 10% interest</li> <li>-</li> </ul>
4. Safe jikos initiative	<ul style="list-style-type: none"> <li>- Established</li> <li>- Saved energy</li> <li>- Provide warmth</li> <li>- Prevent burns</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced deforestation</li> <li>- Design safe jikos that produces less smoke and provide more warmth</li> <li>- More campaigns for selling the safe jiko idea.</li> </ul>
5. Nutrition		
<ul style="list-style-type: none"> <li>• Kitchen gardens</li> </ul>	<ul style="list-style-type: none"> <li>- 50 % established</li> <li>- Seasonal</li> <li>- Percentage affected by large farms</li> </ul>	<ul style="list-style-type: none"> <li>- Use of roof catchment water for kichen gardens</li> <li>- Use waste water from kitchen and bathrooms</li> <li>- More use of mulching in the garden to conserve water</li> </ul>
<ul style="list-style-type: none"> <li>• Small stock</li> </ul>	<ul style="list-style-type: none"> <li>- 30 % rabbits and 70 % chicken keeping established at household level</li> <li>- Provide meat and eggs to family members</li> </ul>	<ul style="list-style-type: none"> <li>- Use the manure for kitchen gardens</li> <li>-</li> </ul>
<ul style="list-style-type: none"> <li>• Growth monitoring</li> </ul>	<ul style="list-style-type: none"> <li>- Sites in Bamako Initiatives and communities</li> <li>- Weighing scales not enough</li> </ul>	<ul style="list-style-type: none"> <li>- More Salter scales required for use by CHWs</li> </ul>
<ul style="list-style-type: none"> <li>• Soya beans</li> </ul>	<ul style="list-style-type: none"> <li>- Established in Gakawa area</li> <li>- Takes long to grow</li> <li>- Cheap in the market</li> <li>- Used in tea</li> </ul>	<ul style="list-style-type: none"> <li>- More education on use of soya beans by groups required</li> </ul>
6. Environmental sanitation		
<ul style="list-style-type: none"> <li>• Pit latrines</li> </ul>	<ul style="list-style-type: none"> <li>- Established in all households</li> <li>- Digging many times because of flooding</li> <li>- Rocky, collapsing 10 – 15 ft</li> <li>- 70-80% HH have serviceable pit latrines</li> </ul>	<ul style="list-style-type: none"> <li>- Easy to clean and most households are going for serviceable pt latrines</li> </ul>
<ul style="list-style-type: none"> <li>• Compost pits</li> </ul>	<ul style="list-style-type: none"> <li>- In place in most households</li> </ul>	<ul style="list-style-type: none"> <li>- Refuse used as manure in kitchen gardens</li> </ul>
7. Safe water supply (Roof catchment)	<ul style="list-style-type: none"> <li>- 30 % of households using it</li> </ul>	<ul style="list-style-type: none"> <li>- Store water in troughs for future use.</li> <li>- Use of more roof catchment</li> <li>- Plant more trees</li> </ul>
8. Family planning services	<ul style="list-style-type: none"> <li>- Available in all facilities covering 30 % of households</li> </ul>	<ul style="list-style-type: none"> <li>-</li> </ul>
9. Health education	<ul style="list-style-type: none"> <li>- Community mobilization made easy on health actions</li> </ul>	<ul style="list-style-type: none"> <li>- HIV/AIDS have increased acceptance of health education messages</li> </ul>
10. Construction of facilities	<ul style="list-style-type: none"> <li>- All operational</li> <li>- 98 % stage of completion</li> <li>- Staff houses built by communities</li> <li>- Toilet/septic tanks not complete</li> </ul>	<ul style="list-style-type: none"> <li>- Population increasing and therefore utilization will go up</li> </ul>

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**Question 2. Identify strategic partners created as a result of project interventions and new methods/features introduced in the project**

Strategic partner	Area of participation	(New methods) innovative features introduced by the project
1. Catholic Archdiocese of Nyeri	- Treatment - Growth monitoring, food supply, water supply	<ul style="list-style-type: none"> <li>- Reduced number of households per CHW from an average of 100 to 25</li> <li>- Increase in the number of CHWs to be trained</li> <li>- Emphasis on serviceable pit latrines as alternate to VIP</li> <li>- Training CHWs at community level</li> <li>- Revision of reporting data collection tools</li> <li>- Safe Jiko severally modified and alternative materials for construction sought</li> <li>- Joint meeting made</li> </ul>
2. Christian Children Fund	- Treatment - Growth monitoring - Food supply - Education	
3. Action AID Kenya	- Growth monitoring - Food assistance - Water supply	
4. Kenya wildlife service	- Water supply	
5. Mwhiko education fund group	- Education targeting AIDS orphans	
6. KEVIDO (Kenya Villages Development organization)	- Alleviation of poverty through sensitization and mobilization	

**Question 3. Give a statement of lifestyles before and after project interventions.**

Indicator	Statement of lifestyle before	Lifestyle after project intervention
1. Immigration	- A lot of youth migrated to urban centers due to lack of employment & health infrastructure	- Population increased due to water supply, health and other facilities. The youths are now settling in the farms rather than go to towns and cities in search of employment
2. School going rate and fees payment	- Source of income poor and low number of children attending schools	- Payment of fees enhanced. More parents can afford school fees - New Day secondary schools have been established
3. Diseases	- There was wide spread cases of Diarrhoea, scabies, intestinal worms, Amoebiosis, HIV AIDS etc	- Apart from Amoebiosis and HIV AIDS which are increasing, all other illnesses are reducing at a considerable rate
4. Employment	- Opportunities were less because the area was very dry - People were seeking jobs in towns	- Easy access to water has improve self employment - Cost sharing in health facilities has created employment due to the need for clerks, watchmen casuals etc
5. Housing	- Many grass thatched houses present in the area	- New modern timber and iron sheet houses has increased - More families have toilets
6. Water supply	- People traveled long distances to fetch water (>4 Km) - Water available only from rivers and springs which are far apart.	- Reduced distances to watering points - Piped water near homesteads. - Roof catchments water stored in tanks
7. Socially	- The community lived on the basis of everyone for his/herself	- Social cohesion increased and there are more community projects started.

**Question 4. How have men and women benefited from project intervention?**

Men have accrued the following benefits as a result of PHC interventions

- a) Reduction in drinking habits
- b) Unity at home between husband and wife has improved due to good source of income
- c) Reduction in promiscuity as a result of training on HIV/AIDS scourge
- d) Reduction in crimes committed due to idleness
- e) Ease in paying school fees
- f) Improved health and cleanliness of men due to good diet and affordable health care.
- g) Training in HIV/AIDS has done good and men are back at home

On the other hand women have benefited in the following ways

- a) Reduced distances to health facilities
- b) Improved health of family members
- c) Reduction in child abuse by making them work in family farms due to frustration by the economy and love in the family has increased
- d) Child care has improved
- e) Fertility has increased due to good and affordable health care
- f) Cleanliness at the household has improved greatly
- g) Reduction in infant diseases and mortality
- h) Idleness and thus immorality has reduced since everyone has something to do
- i) Better home management due to the training provided by the project
- j) Safe energy saving Jikos has reduced the burden of fetching firewood
- k) Women are more clean and attractive to their husbands
- l) More access to school fees for own children

**Question 5. State the current situation of different interventions under the PHC component and indicate proposed future plans for sustainability.**

Activity	Current situation	Proposed future plans
1. Training		
• Health facility management Committees	- Trained and in place in all facilities	- Refreshers courses needed - Training of new committees - Need for follow up on HFMC activities
• Staff	- Adequately trained on various basic skills	- Refresher course to be conducted
• VHCs/CHWs	- Trained and in place - High drop out rate	- Introduce motivation to retain them - Train more CHWs - Start IGAs - Give tokens - Conduct exchange visits - Training objective of CHW to be made clear
2. Facilities maintenance	Excellent	- Maintain the efficiency through cost sharing funds
3. Community Pharmacies (Bamako Initiatives)	- 4 established - 4 in the process	- Viable PHC structure to be put in place - Establish more pharmacies as IGAs
4. Drugs and Supply	Good	- Enhance cost sharing - Strengthen PHC activities
5. HIV/AIDS campaign	Health education	- Avail more information on HIV/AIDS - Improve voluntary counseling and testing - Help the affected and infected by showing love, hope, care and assisting their families

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The following beneficiaries participated in the discussion under Primary Health care component

Name	Position	Facility
John Mwaniki	CHW	Gataragwa
Gladys Njeri	Chairlady	Belleview Dispensary
Harun Mathenge	Chairman	Kamburaini pharmacy
Teresa Wanjiku	CHW	Kamiruri community phamarcy
Grace W. Wambugu	Clinical officer	Kiganjo/Kirichu
Hellen W. Mwangi	CHW	Gakawa/Rugati
James Muthee	CHW	Gakawa Dispensary
Mwanaisha Wambugu	VHC	Burguret
Teresa Wangu	CHW	Burguret
Martin Gitonga	Clinical officer	Warazo Health Centre
Edward Warutere	Chairman	Warazo Health Centre
Beatrice M. Gichimu	PHC Lusoi	Warazo Health centre
Geoffrey M. Muruthi	Beneficiary	Gakawa dispensary

**3. Agriculture and Home Economics Group**

**Beneficiary Workshop – 9<sup>th</sup> May 2002**

**Objectives:** To discuss impact and outcome of the project

**Question 1:** Identify actual potential utilization of project services by beneficiaries

Project Service	Actual utilization	Potential utilization
Irrigation and domestic water use	<ul style="list-style-type: none"> <li>- Only about 30% received water and were only able to irrigate an eighth of an acre.</li> <li>- Horticulture crops grown</li> <li>- Employment opportunities 60%</li> <li>- Afforestation and Agroforestry - 70%</li> <li>- Introduction of export crops like snow peas led to some farmers neglecting food production which posed another problem of food shortage</li> <li>- Damage on forests reduced</li> <li>- Fodder trees and firewood increased</li> </ul>	<ul style="list-style-type: none"> <li>- Could improve water supply by construction of water reservoirs</li> <li>- Potential not fully exploited</li> </ul>
Agricultural Extension Services	<ul style="list-style-type: none"> <li>- For specialized services particularly for new crops for export specialised training is.</li> <li>- Have been taught on how groups should start income generating projects; proposed selection, water harvesting, kitchen gardens, cookery demonstrations, water utilization, preservation farming.</li> <li>- Formation of groups and group development</li> </ul>	<ul style="list-style-type: none"> <li>- Potential of utilizing the services is high.</li> <li>- Introduction of cottage industries</li> <li>- Marketing improved</li> </ul>

**Question 2:** Identify strategic partners created a result of project interventions

Strategic Partners	Areas of Participation	(New Methods) Innovative Features introduced by the Project
Home grown INDU farm	Introduced both snow peas and French beans	1. Uses of natural pesticides <ul style="list-style-type: none"> <li>- 1 litre – milk</li> <li>- 10 litre – water</li> <li>- ¼ piece bar soap</li> <li>- Control of blight</li> <li>- 2 tsp tbs yeast</li> <li>- ½ piece bar soap</li> <li>- 10 litres water</li> <li>- Tithonia (maruru)</li> <li>- ¾ full bucket – fill bucket</li> </ul>
Everest	Followed up with snow peas and introduced	
Self help self center	<ul style="list-style-type: none"> <li>- Provision of free seeds</li> <li>- Introduction of milk berry</li> <li>- Bee keeping</li> <li>- Introduction of drought resistant crops</li> <li>- Introduction of fruit trees</li> <li>- Introduction of oil crops</li> </ul>	
GifAP	- Safe use if pesticides	

ICRAF/KARI	<ul style="list-style-type: none"> <li>- Introduction of fodder trees</li> <li>- Introduction of new bright resistant potatoes</li> </ul>	<ul style="list-style-type: none"> <li>with water, keep for 7 days, use 1 litre: extract to 2 litre water tanks due to scarcity of water               <ul style="list-style-type: none"> <li>- Service run off</li> </ul> </li> <li>2. Construction of small dams and tanks due to scarcity of water</li> <li>3. Use of avocado as blue band and hair treatment</li> <li>4. Use of compost making</li> <li>5. Smocking of maize to prevent pests</li> <li>6. Animal health</li> <li>7. Use of broken pots as jiko liners</li> <li>8. Use of locally available materials</li> </ul>
KIREFU (Kieni Revolving Fund SACCO)	<ul style="list-style-type: none"> <li>- Credit to groups and training</li> <li>- IGA – Bee keeping               <ul style="list-style-type: none"> <li>- Dairy</li> <li>- Goat rearing</li> <li>- Vegetable drying</li> <li>- Organic training</li> <li>- Seri culture</li> </ul> </li> </ul>	
ADN Archdiocese of Nyeri (Caritus)	<ul style="list-style-type: none"> <li>- Water harvesting tanks</li> <li>- Used to have a credit component</li> </ul>	
Belgium Embassy	<ul style="list-style-type: none"> <li>- Bought tanks for a group</li> <li>- Posho mill</li> </ul>	
WIDEN	<ul style="list-style-type: none"> <li>- Homec – Energy saving</li> </ul>	
FPEAK	<ul style="list-style-type: none"> <li>- Training and introduced cut flowers</li> <li>- Offered credit but didn't succeed afterwards</li> </ul>	
Flower Council	<ul style="list-style-type: none"> <li>- Following up</li> </ul>	
GTZ	<ul style="list-style-type: none"> <li>- Promotion of dairy goat</li> <li>- Dissemination of jiko liners</li> </ul>	

**Question 3: Give statement of the lifestyles before and after project interventions**

Area/Indicator	Statement of life styles before	Lifestyle after project intervention
Diseases	<ul style="list-style-type: none"> <li>- Skin diseases</li> <li>- Marasmus</li> <li>- Body parasites</li> </ul>	<ul style="list-style-type: none"> <li>- Has reduced</li> </ul>
Feeding	<ul style="list-style-type: none"> <li>- No vegetables, no fruits, little or no meat</li> <li>- Didn't know how to balance diets</li> </ul>	<ul style="list-style-type: none"> <li>- Currently greens, fruits and meat available. Milk has increased.</li> <li>- Are now making home made juices</li> <li>- Able to bake for ceremonies</li> </ul>
School going	<ul style="list-style-type: none"> <li>- Lower initially</li> </ul>	<ul style="list-style-type: none"> <li>- High</li> <li>- Schools have used and academics</li> </ul>
Social cohesion	<ul style="list-style-type: none"> <li>- Women were idle and were preoccupied with gossip and squabbles</li> <li>- Women groups increased</li> <li>- Youth busy</li> </ul>	<ul style="list-style-type: none"> <li>- People are too busy</li> </ul>
Employment	<ul style="list-style-type: none"> <li>- Was low</li> </ul>	<ul style="list-style-type: none"> <li>- Increased agricultural activities have offered opportunities of employment</li> </ul>
Immigration	<ul style="list-style-type: none"> <li>- After completion of school – more to town</li> </ul>	<ul style="list-style-type: none"> <li>- Youth busy with farming</li> </ul>
Personal hygiene	<ul style="list-style-type: none"> <li>- Very low initially</li> </ul>	<ul style="list-style-type: none"> <li>- Now cleanliness emphasized</li> <li>- Improvement of houses</li> </ul>
Housing	<ul style="list-style-type: none"> <li>- Originally thatched</li> </ul>	
Communication	<ul style="list-style-type: none"> <li>- Limited</li> </ul>	<ul style="list-style-type: none"> <li>- Public transport available</li> <li>- TV</li> <li>- Telephones</li> <li>- Mobile phones</li> </ul>
Clothing		<ul style="list-style-type: none"> <li>- Has improved</li> <li>- Good cardigans, curly kits</li> </ul>

Appendix 1: Photographs of Beneficiaries Demonstrating Project Results



Water Tank – Kaaga Water Project



Kaaga Water Project



Kirinyaga Nyange



Kirinyaga Nyange

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Kirinyaga Nyange



Kirinyaga Nyange



Kirinyaga Nyange



Narumoru Aguthi - Irrigation



Warazo Lusoi



Mwea B. Water Project



Kirinyaga Nyange



Kirinyaga Nyange