

## 【付属資料】

1. インセプション・レポート
2. 協議議事録（写し）
3. 収集資料リスト
4. 対象村落状況調査票
5. 社会条件調査結果

INCEPTION REPORT ON THE PRELIMINARY STUDY  
For

INCEPTION PAPER

THE PROJECT FOR GROUNDWATER DEVELOPMENT IN RURAL  
DISTRICTS (MACHAKOS, KITUI AND SURROUNDING AREAS)

THE PRELIMINARY STUDY  
ON  
THE REQUESTED PROJECT FOR  
GROUNDWATER DEVELOPMENT IN RURAL DISTRICTS  
(MACHAKOS, KITUI AND SURROUNDING AREAS)  
IN  
THE REPUBLIC OF KENYA

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Prepared by

PRELIMINARY STUDY TEAM

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

## 1. INTRODUCTION

In year 2002, the Government of the REPUBLIC OF KENYA made the request for a grant aid on the Project for Groundwater Development in Rural Districts (Machakos, Kitui and surrounding areas) (hereinafter referred to as "the Project") to the Government of Japan.

The Government of Japan entrusted the study to examine the viability of the Project to the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency implementing Japanese Government's technical assistance and expediting proper execution of the Japan's Grant Aid. Hence, JICA decided to conduct a Preliminary Study and sent the study team, headed by Mr. Tomoki NITTA, the Deputy Resident Representative, JICA Kenya Office.

The Study Team carries out the following studies:

- (1) Comprehension of the contents of the requested Project
- (2) Confirmation of the priority of the project sites through field survey and other development plans related to the Project
- (3) Investigation of the present situation and problems in the related sectors
- (4) Confirmation of maintenance and administration system in the national, implementing and operation organs
- (5) Verification of fiscal capabilities of the organs concerned
- (6) Confirmation of trend of assistance from other donors
- (7) Collection and analysis of data, information and materials related to the Project.

This inception report has been prepared to explain Japan's Grant Aid system, the characteristics of the Preliminary Study, objectives and methods of the Study, and to confirm mutual understandings regarding basic items of the Study.

## 2. JAPAN'S GRANT AID

### 2.1 JAPAN'S GRANT AID SCHEME

The Grant Aid scheme provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services, transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

#### 2.1.1 Grant Aid Procedures

Japan's Grant Aid Scheme is executed through the following procedures.

- > Application
  - Request made by a recipient country
- > Study
  - Basic Design Study conducted by JICA
- > Appraisal and Approval
  - Appraisal by the Government of Japan and Approval by Cabinet
  - > Determination of Implementation
    - The Notes exchanged between the Governments of Japan and the recipient country

Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for the Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request.

Secondly, JICA conducts the study (hereinafter referred to as "Basic Design Study"), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Scheme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official the Exchange of Notes (hereinafter referred to as "E/N") signed by the Governments of Japan and the recipient country.

Finally, for the smooth implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

## 2.1.2 Japan's Grant Aid Scheme

## (1) Exchange of Notes (EN)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

- (2) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contract with (a) consulting firm(s) and (a) contractor(s) and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as natural disaster, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

- (3) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

## (4) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

## (5) Undertaking required to the Government of Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as the following:

- ① To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction,

- ② To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- ③ To secure buildings prior to the procurement in case the installation of the equipment,
- ④ To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- ⑤ To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- ⑥ To accord Japanese nationals, whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

## (6) "Proper Use"

The recipient country is required to operate and maintain the facilities constructed and equipment purchased under the Grant Aid properly and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

## (7) "Re-export"

The products purchased under the Grant Aid should not be re-export from the recipient country.

## (8) Banking Arrangement (B/A)

- ① The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- ② The payments will be made when payment request are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

## (8) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

## 2.2 GRANT AID PROCEDURES

Following Tables 2.1 and 2.2 show "MAJOR UNDERTAKINGS TO BE TAKEN BY EACH GOVERNMENT" in cases of procurement project and construction project, and Figure 2.1 indicates "FLOW CHART OF JAPAN'S GRANT AID PROCEDURES", respectively.

TABLE 2.1 MAJOR UNDERTAKINGS TO BE TAKEN BY EACH GOVERNMENT  
(Case of Procurement Project of Equipment and/or Materials)

No.	Items	To be covered by Grant Aid	To be covered by Recipient Site
	To bear the following commissions to the Japanese Bank for banking services based upon the B/A		
1	1) Advising commission of A/P	●	●
	2) Payment commission	●	●
	To ensure unloading and customs clearance at port of disembarkation in recipient country		
2	1) Marine (Air) transportation of the products from Japan to the recipient country	●	●
	2) Tax exemption and customs clearance of the products at the port of disembarkation	●	●
	3) Internal transportation from the port of disembarkation to the project site	●	●
	To accord Japanese nationals, whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		
3		●	●
	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts		
4		●	●
	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		
5		●	●
	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		
6		●	●

TABLE 2.2 MAJOR UNDERTAKINGS TO BE TAKEN BY EACH GOVERNMENT

(Case of Facility Construction Project, Procurement can be included into )

No.	Items	To be covered by Grant Aid	To be covered by Recipient Site
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	●
5	To construct roads		●
	1) Within the site	●	●
	2) Outside the site	●	●
6	To construct the building		●
	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	●
	c. The main circuit breaker and transformer	●	●
	Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	●
	Drainage		
	a. The city drainage main (for storm sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	●
	Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	●
	Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) for the building		●
	b. The MDF and the extension after the frame/panel	●	●
	Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	●
	To bear the following commissions to the Japanese bank for banking service based upon the B/A		
8	1) Advising commission of A/P		●
	2) Payment commission		●
	To ensure unloading and customs clearance at port of disembarkation in recipient country		
9	1) Marine (Air) transportation of the products from Japan to the recipient	●	●
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	●
	To accord Japanese nationals, whose service may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		
10		●	●
	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contacts		
11		●	●
	To maintain and use properly and effectively the facilities contracted and equipment provided under the Grant		
12		●	●
	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		
13		●	●

(B/A: Banking Arrangement, A/P: Authorization to Pay)

### 3. IMPLEMENTATION OF THE STUDY

#### 3.1 CONTENTS OF THE STUDY

The aims of the Preliminary Study are to evaluate practicability of the requested Project and to investigate the details of the Project whether it meets the conditions of the Japan's Grant Aid or not. The Study also aims to explain the Japan's Grant Aid Scheme.

To achieve the objective of the study, the team will collect all the information relating to the requested Project from the national government, local government, private sectors, NGOs and carry out the field survey to investigate actual situation at the project sites.

The study includes the following contents relative to the requested Project:

- (1) Background of the requested Project, confirmation of the contents of the Project,
- (2) Development plan and water sector strategy and policy in Kenya,
- (3) Survey on implementation of the Project
  - 1) Organization of Implementation agency, personnel, technical level, achievement of the construction of water supply systems, construction method/capability, budget (recurrent and capital), operation and maintenance conditions of owned equipment and materials
  - (4) Operation and maintenance of water supply systems
    - 1) Present conditions of O & M of existing water supply systems  
(Role share between administrative office and users, Monitoring systems, Procurement conditions of spare parts, Repairing system, Collection system of water charge, Activity of water management committee, etc.)
    - (5) Survey on the Project area
      - 1) Confirmation of the proposed project sites (area)
      - 2) Data collection on served population, Hydrogeological conditions, Water quality, etc
      - 3) Survey on existing water supply systems  
(Number of facilities, served population and area, operational conditions, possibility of rehabilitation)
      - 4) Social conditions  
(Infrastructure, Population, Diseases ratio, Sanitation conditions, etc.)
- (6) Data Collection on Aid Situation

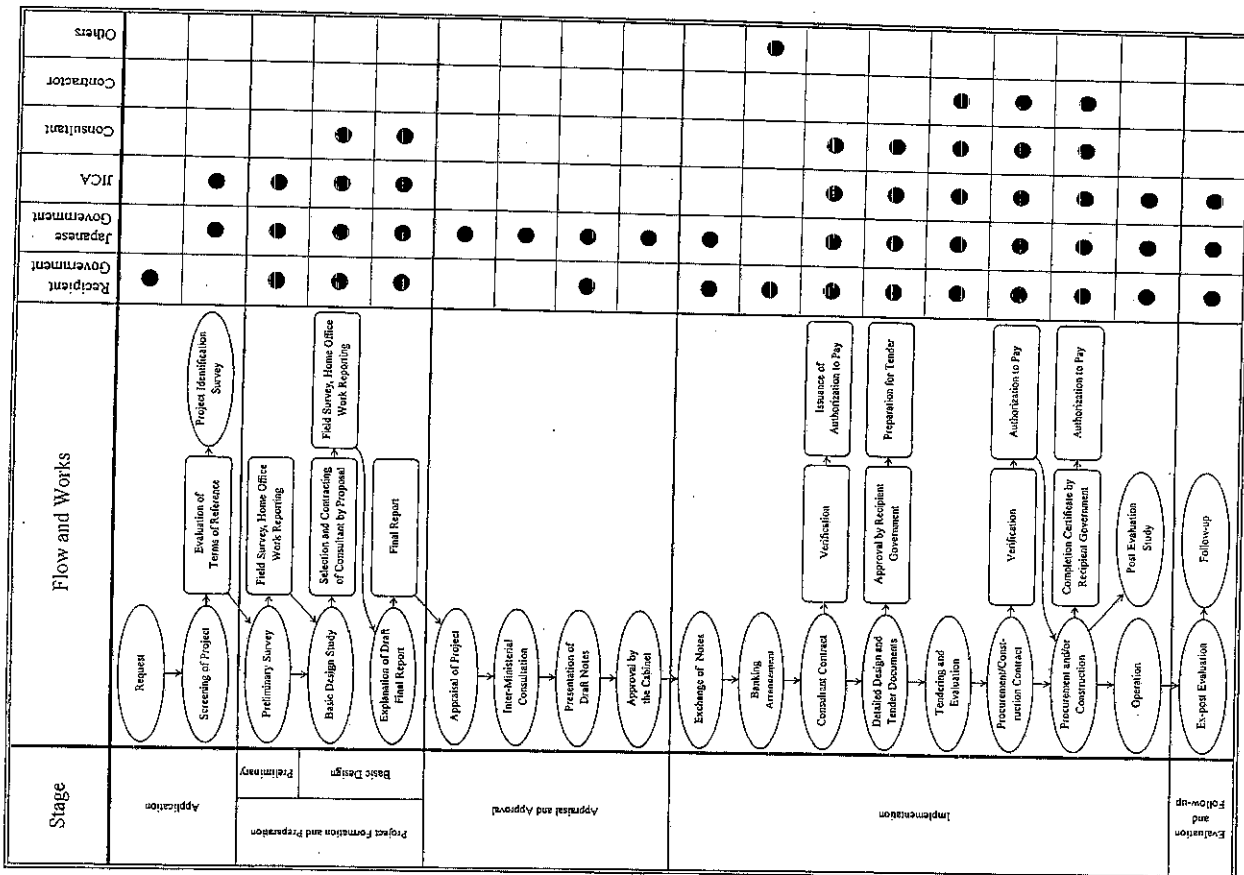


FIGURE 2.1 FLOW CHART OF JAPAN'S GRANT AID PROCEDURES

## 1) Donors and NGOs relating to water sector

(Construction methods of facilities, Cost, Activities, Cooperative achievement, Technical assistance for O&M, Future plan, etc)

It is important for both sides to understand that at the stage of the Study no commitment is made from the Japanese side concerning the realization of the Project.

The preliminary study report will be used to decide by the Japanese Government whether or not the Project is executed in the scheme of Grant Aid. The basic concept, size, contents and the related items of Grant Aid (in case it is executed) are also to be decided from the results of the Study.

## 3.2 MEMBER OF THE STUDY TEAM

TABLE 3.1 MEMBER OF THE STUDY TEAM

Name	Position	Organization
Mr. Tomoki NITTA	Leader	Deputy Resident Representative, Kenya Office, JICA
Ms. Junko UNO	Coordinator	First Project Management Division, Grant Aid Management Department, JICA
Dr. Satoshi NAKAMURA	Rural Water Supply/ Groundwater Development	Executive Engineer, Earth System Science Co., Ltd.
Mr. Toru TAKAHASHI	Social Condition Survey/ Operation and Maintenance Management	Project Operation Div. International Dep., Sanyu Consultant Inc.,

## 3.3 PROPOSED ITINERARY OF THE STUDY TEAM

TABLE 3.2 PROPOSED ITINERARY OF THE STUDY TEAM (1/2)

No.	Date		Activity
1	17-Nov-03	Mon	→Nairobi (9:26) Meeting with JICA office, Courtesy call to Embassy of Japan, Courtesy call to Ministry of Water Resources Management and Development
2	18-Nov-03	Tue	Discussion with MoWRMD (explanation of inception paper) Visiting to SIDA
3	19-Nov-03	Wed	Discussion with MoWRMD (including representative from the branch offices of MoWRMD of Machakos, Kitui, Makuani and Mwingi) Visiting to UNICEF
4	20-Nov-03	Thu	Nairobi→Makuani, Discussion with MoWRMD Makuani Office, Site survey in Makuani Makuani→Machakos
5	21-Nov-03	Fri	Discussion with MoWRMD Machakos Office, Machakos→Kitui Discussion with MoWRMD Kitui Office, Site survey in Kitui
6	22-Nov-03	Sat	Kitui→Mwingi, Discussion with MoWRMD Mwingi Office, Site survey in Mwingi, Mwingi→Nairobi
7	23-Nov-03	Sun	Internal Meeting
8	24-Nov-03	Mon	Discussion with MoWRMD (on draft of Minutes of Discussion: M/D), Signing M/D, Report to Embassy of Japan, Report and discussion with JICA Office
9	25-Nov-03	Tue	Nairobi→Machakos, Site Survey in Machakos, Machakos→Nairobi (Coordinator: Nairobi(2300.BA064)-)

TABLE 3.3 PROPOSED ITINERARY OF THE STUDY TEAM (2/2)

No.	Date	Activity	
		Mr. Nakamura	Mr. Takahashi
10	26-Nov-03	Wed	Discussion with MoWRMD and EWL (Local Consultant)
11	27-Nov-03	Thu	Interview and Data collection at Nairobi (MoWRMD and Other Agencies : World Bank, DANIDA, Belgium, China, Egypt and NGO)
12	28-Nov-03	Fri	Ditto
13	29-Nov-03	Sat	Visiting Lift Valley Project Site
14	30-Nov-03	Sun	Internal meeting Nairobi → Mwingi
15	01-Dec-03	Mon	Field Survey (Mwingi)
16	02-Dec-03	Tue	Field Survey (Mwingi)
17	03-Dec-03	Wed	Field Survey (Kitui)
18	04-Dec-03	Thu	Field Survey (Kitui)
19	05-Dec-03	Fri	Field Survey (Makueni)
20	06-Dec-03	Sat	Field Survey (Makueni)
21	07-Dec-03	Sun	Field Survey (Mwachakos)
22	08-Dec-03	Mon	Field Survey (Mwachakos) Mwachakos → Nairobi
23	09-Dec-03	Tue	Internal Meeting Report preparation
24	10-Dec-03	Wed	Interview and Data collection at Nairobi (Local contractor, consultant)
25	11-Dec-03	Thu	Supplement Field Survey Ditto
26	12-Dec-03	Fri	Ditto
27	13-Dec-03	Sat	Ditto
28	14-Dec-03	Sun	Ditto
29	15-Dec-03	Mon	Data Collection / Interview at Nairobi
30	16-Dec-03	Tue	Data Collection / Interview at Nairobi
31	17-Dec-03	Wed	Supplement Data Collection / Interview / Report Preparation
32	18-Dec-03	Thu	Supplement Data Collection / Interview / Report Preparation
33	19-Dec-03	Fri	Report and Discussion with MoWRMD
34	20-Dec-03	Sat	Supplement field Survey
35	21-Dec-03	Sun	Supplement field Survey
36	22-Dec-03	Mon	Report and Discussion with MoWRMD
37	23-Dec-03	Tue	Report to JICA and Embassy, Nairobi (23:00, BA064) →

## 3.4 ITEMS REQUESTED BY THE TEAM TO THE RECIPIENT SIDE

The Government of Kenya is requested to make necessary arrangements for the Team for the smooth implementation of the study as follows;

- (1) To provide the Team with available relevant data, information and materials necessary for the execution of the Study.
- (2) To prepare answers to the Questionnaire presented by the Team and submit it duly completed.
- (3) To assign full-time counterpart personnel (2 person) to the Team during their stay in Kenya to undertake the following:
  - To make appointments and set up meetings with the relevant authorities wherever the Team intends to visit.
  - To attend the site survey and any other tours with the Team and to secure any access permissions, if so required.
  - To advise and assist the Team as much as possible in their collection of data and information.
  - To collect the available relevant data and information from concerned agencies of the Government of Kenya.
- (4) To secure the permission for the Team to enter into and photograph private properties and restricted areas necessary for proper execution of the study.
- (5) To take appropriate measures deemed necessary to secure the safety of the members of the Team.
- (6) To make arrangements to allow the Team to take to Japan any necessary data, information, maps and materials related to the study, subject to approval by the Government of Kenya, in order to prepare the study reports.



#### 4. DESCRIPTION OF THE REQUEST

Based on the original request dated July 2002 from Government of Kenya, the project is described as follows.

##### 4.1 OBJECTIVES / PURPOSE OF THE PROJECT

To provide the rural population and livestock in the target area with safe and adequate quantity of water with easy access through groundwater development. The project is intended to benefit 320,000 people based estimated 1500, 1000 and 400 people for level III, II and I water supply facilities respectively.

To reduce time and work loads of women and children and thereby improve their health and avail time for other productive activities. In the project area women and children traditionally do the water fetching. Majority of the homesteads area located more than one hour away from the water source. Therefore the project aims at availing clean water within a maximum walking distance of 4 km.

##### 4.2 OVERALL GOAL/ MEDIUM AND LONG TERM OBJECTIVES

- To improve the health standards of the target population by supplying safe water
- To contribute towards poverty reduction and enhancing economic growth
- To enhance modern settlement pattern for better livestock rearing by supplying sufficient water

##### 4.3 PROPOSED PROJECT SITE

- 1) Machakos District and surrounding areas  
Yatta, Mwala, Yathui, Katangi Kisau, Wote, Kalama, Nguu, Matiliko, Kasiken, Mulala, Tulimani and Kilome Divisions
- 2) Kitui District and surrounding areas  
Mutito, Chuloni, Yatta, Matinyani, Mwitika Kyuso, Nguni and Migwani divisions

##### 4.4 REQUESTED FACILITIES

- Construction of 100 successful boreholes equipped with motorized pumps, storage tank, pipeline and at least five (5) water kiosks. This should be constructed in areas of high population density and where community capacity to manage the facilities is high.
- Construction of 150 successful boreholes equipped with motorized pumps, storage tank,

livestock watering facility and one (1) communal water point for human demand. This will be located in high priority areas in terms of need, potential water source, quality, community capacity and accessibility.

- Construction of 50 successful boreholes equipped with a hand pump and concrete-slabbed-apron as well as livestock trough. This should be constructed in areas of medium to low population density areas where community capacity to manage the facilities is high.

The number of the facilities in each district is provisionally provided in the following table :

Table 4.1 Construction of water supply facilities : 300 Nos.

Type of facilities	Machakos District and surrounding areas	Kitui District and surrounding areas	Total
Level III	60	40	100
Level II	80	80	150
Level I	15	35	50
Total	155	145	300

- Level III borehole equipped with motorized pumps, storage tank, pipeline and at least five (5) water kiosks
- Level II borehole equipped with motorized pumps, storage tank, livestock watering facility and one (1) communal water point
- Level I borehole equipped with a hand pump and concrete-slabbed-apron as well as livestock trough

## 5. Items to be Discussed and Necessary Information / Questionnaire

### 1 MoWRMD (Central)

<Discussion Matter>

- 1) Confirmation of Survey Itinerary
  - Confirmation of appointment, counterparts and security conditions
  - Target of the site survey
- 2) Purpose, target and Contents of Requested Project
- 3) Present situation and relationship between National Development Plan / Policy and requested Project
- 4) Related law / regulation and its current / future situation
- 5) Current situation and problem of water supply in target area
- 6) Water quality standard / regulation for drinking water and its tolerance
- 7) Demarcation and function of MoWRMD central office and branch office
- 8) Situation and prospect of related projects (by own budget and other donor)
- 9) Suitable structure / type / specification / quality of the well and water supply facilities for the target area
- 10) Current situation and reflection of Lift Valley Project
- 11) Necessity of environmental consideration for this project
- 12) Demarcation of function between MoWRMD and other organizations (MoH, MoARD, MoLG, MoCSS)
- 13) Relationship between the requested project and programs of other sector (The Social Dimensions of Development: SDD, Development Policy in ASAL, and so on)
- 14) Water supply rate (coverage), population, waterborne infectious diseases rate in the whole country / urban area / rural area
- 15) Gender and women participation in rural water supply management
- 16) O&M work and cost of additional water purification facilities (chlorination, removal of iron)
- 17) Ability of subcontractor / consultant on assistance for rural water supply management
- 18) Possibility and constraint regarding the cooperation with NGO on assistance for rural water supply management
- 19) Priority of project target areas/ sites (Criteria / standards for the selection)
- 20) Items / standards for application of each type considering the affordable running cost (Type 1: hand pump, Type 2: powered pump and public faucets, Type 3: powered pump and individual connections)
- 21) Standard or recommended tariff and levy system on rural water supply

- 22) Common or regulated system on O&M of rural water supply and quality control standard
- <Necessary Information>

See attached Questionnaire for MoWRMD

### 2 MoWRMD (Branch Office)

<Discussion Matter>

- 1) Confirmation of Survey Itinerary
    - Confirmation of appointment, counterparts and security conditions
    - Target of the site survey
  - 2) Basic information of listed villages
  - 3) Current situation and problem of water supply in listed villages
  - 4) Situation and prospect of related projects (by own budget and other donor)
  - 5) Suitable structure / type of the well and water supply facilities for the target area
  - 6) Covered area and demarcation among MoWRMD branch offices and the layered administration unit in rural area (province, district, town, village)
  - 7) Demarcation between MoWRMD branch office and provincial rural development office / provincial local government office / provincial social service office
  - 8) Assistance and monitoring system (staff, contents, budget) for inhabitant participation and hygiene education activity on rural water supply management
  - 9) Conditions of general management for rural water supply facilities and water management committee in the area
  - 10) Disposition of service engineer for pump and generator
  - 11) Distribution network of spare parts for pump and generator
  - 12) General conditions of socio-economical field in the requested area and selection criteria
  - 13) Low security and excluded area (eastern part in Kitui province)
- <Necessary Information>
- See Attached Questionnaire for MoWRMD

### 3. Other Agencies and Organizations of Kenyan Government (Environmental Department in Ministry of Environment and Natural Resources, Ministry of Health, Ministry of Local Government, Ministry of Agriculture and rural Development and so on)

<Discussion Matter>

- 1) Natural condition of the target area
- 2) Geological Condition of the target area
- 3) Environmental condition / regulation of Kenya

- 4) Socio-economical conditions of the target area
  - 5) Health and hygiene conditions / standard in Kenya
  - 6) Activity for hygiene improvement in rural area
- <Necessary Information>
- 1) Organization chart
  - 2) Role for the water supply field
  - 3) Statistics data in rural area (education, medical service, health, economy, distribution, industry, employment)

4. Other Donor / NGO / International Organization

<Discussion Matter>

- 1) Concentrated field and prospects
  - 2) Activity in the water supply field (in Kenya and the target area)
  - 3) The contents and cost for the water supply project
  - 4) Recommendation for the water supply project in Kenya and target area
  - 5) Demarcation among donors and selection criteria / principle
  - 6) Follow up conditions for the past-executed project
  - 7) Contents, cost and execution method of assistance for water management committee and enlightenment activity
  - 8) Conditions of commission to NGO on assistance activity for rural water management
- <Necessary Information>
- 1) List of activities in Kenya
  - 2) Report of the activities in water supply field in Kenya

5. Local Consultant

<Discussion Matter>

- 1) Question for the contents of the reports
  - 2) Situation of water supply field in Kenya (especially Groundwater development)
  - 3) Suitable structure / type of the well and water supply facilities for the target area
  - 4) Local contractor and their ability
  - 5) Suitable management system of rural water supply for the target area
  - 6) Selling agent of spare parts and service engineer of maintenance work
- <Necessary Information>

- 1) Brochure of the company
- 2) List of equipment, engineer, experience of work
- 3) Consulting experience in the target area

- 4) Unit price for the engineer (per month base)
- 5) Unit price for the extension staff on enlightenment activity (per month base)

6. Local Contractor

<Discussion Matter>

- 1) Situation of groundwater development in the target area
  - 2) Suitable structure / type of the well and water supply facilities for the target area
- <Necessary Information>

- 1) Brochure of the company
- 2) List of equipment, engineer, experience of work
- 3) Well drilling experience in the target area
- 4) Unit price for well drilling and construction of water supply facilities

7. Selling agent of spare parts and service engineer of maintenance work

<Discussion Matter>

- 1) Maintenance conditions of pump and generator in the target area
  - 2) Suggestion on pump type / manufacturer / country of origin
- <Necessary Information>
- 1) Brochure of the agent
  - 2) Inventory and price list of spare parts
  - 3) Number of service engineer / experience of service work / service charge

6.1 Questionnaire Items

Category	Description	Form	Check
<b>Questionnaire for Ministry of Water Resources Management and Development</b>			
A	Administration and Institution		
	1 "Organization Chart" for Kenyan Government, MoWRMD and related agencies		
	2 Demarcation and duties between ministries in the water supply field (please explain by written paper)		
	3 Latest laws and regulations related water supply and sanitation		
	4 Annual budget of Kenyan Government and MoWRMD (Total and water supply field)	A-4	
	5 Equipment list possessed by MoWRMD (water supply field)		
	6 O&M division of MoWRMD (budget, organization, staff, technical level, workshop)	A-6	
	7 Activities of O&M division of MoWRMD (monitoring and technical assistance)	A-7	
<b>B Basic Data</b>			
	1 National development plan		
	2 Master plan and / or feasibility study on rural water supply		
	3 Latest Census book of Kenya		
	4 Detail static of target area		
	5 Social infrastructure of target area		
	6 Water supply rate (coverage) and Water supplied population	B-6	
<b>C Project and Programme</b>			
	1 List of public works done or scheduled by own budget	C-1	
	2 List of donor's assistance projects (done and scheduled)	C-2	
<b>D Natural</b>			
	1 Topographic map (Scale 1/50,000 and 200,000)		
	2 Geological and Hydrogeological map (Whole Kenya and target)		
	3 Meteorology data	D-1	
	4 Hydrological data (river flow, flood etc.)		
<b>E Water Supply of Target area</b>			
	1 Inventory of basic data (population, household, etc) of each village	E-1	
	2 Inventory of the source for drinking water of each village	E-2	
	3 Inventory of the water supply facilities	E-3	
	4 Inventory of water management committee (WMC) (member)	E-4	
	5 Inventory of water management committee (WMC) (activity)	E-5	
	6 Inventory of water fetching work	E-6	
<b>F Others</b>			
	1 List of Consultant and Contractor for Water Supply Field		
	2 List of available local materials and cost	F-2	

6.1 Questionnaire Items

Category	Description	Form	Check
<b>AA Questionnaire for Ministry of Health</b>			
	1 Statistics and index of medical, health and hygiene conditions	AA-1	
	2 Major disease in rural area and conditions of infection, measure and prevention	AA-2	
	3 Activity of public health in rural area	AA-3	
	4 List of Medical facilities in each district (Hospital, Health center, Clinic, Dispensary)		
<b>AB / Ministry of Agriculture and Rural Development</b>			
	1 Statistics and index of social development	AB-1	
	2		
<b>AC Questionnaire for other Donor, NGO</b>			
	1 Organization's policy and the past project	AC-1	
	2		
<b>AD Questionnaire for Local Consultant</b>			
	1 Local consultant for the activity of community enforcement and hygiene education	AD-1	
	2		
<b>AE Questionnaire for Spare Parts Agent</b>			
	1 Inventory of spare parts and maintenance service	AE-1	
	2		

Note: Empty of the column "Form" means free form.

A-6 O&M division

Annual Budget of O&M division (Ksh)

Year	1999	2000	2001	2002	2003	2004
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

Annual Expenditure of O&M division (Ksh)

Year	1999	2000	2001	2002	2003	2004
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

Technical Staff of O&M division (Persons)

Technical level	division manager	senior engineer	engineer	clerk	driver	worker
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

Extension / Enlightenment Staff (Persons)

Major activity	community enforcement (male)	community enforcement (female)	financial management (male)	financial management (female)	hygiene education (male)	hygiene education (female)
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

Facilities and Mobility of O&M division

Facilities and mobility	ware house *	workshop *	laboratory *	lorry (unit)	pick-up truck (unit)	motorbike (unit)
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

\* good - moderate - poor - none

A-4 Annual Budget

Year	1999	2000	2001	2002	2003	2004
Kenya Government						
Whole budget						
Rural water supply						
Urban water supply						
Irrigation						
Groundwater Development						
MoWRMD						
Whole budget						
Rural water supply						
Urban water supply						
Irrigation						
Groundwater Development						

A-7 Activities of O&M division

Monitoring and Technical Assistance by O&M division

Activity	water quality monitoring	periodical preventive inspection	maintenance and repair work	management of spare parts supplier	assistance for Water Management Committee	sanitary education
MoWRMD						
Machakos District office						
Makueni District office						
Mwingi District office						
Kitui District office						

\* Inspection / maintenance works for well, pump, pipeline, appurtenance (apron etc.).

\* frequency: yearly - monthly - sometimes - rare

B-6 Water supply rate (coverage) and Water supplied population

water supply rate in urban area (%)						
Year	1999	2000	2001	2002	2003	2004
National						
Machakos District						
Makueni District						
Mwingi District						
Kitui District						

water supply rate in rural area (%)						
Year	1999	2000	2001	2002	2003	2004
National						
Machakos District						
Makueni District						
Mwingi District						
Kitui District						

water supplied population in urban area (persons)						
Year	1999	2000	2001	2002	2003	2004
National						
Machakos District						
Makueni District						
Mwingi District						
Kitui District						

water supplied population in rural area (persons)						
Year	1999	2000	2001	2002	2003	2004
National						
Machakos District						
Makueni District						
Mwingi District						
Kitui District						

C-1 List of Public Works done or scheduled by Own Budget

Rural water supply			
Name	Area	Budget	Period
1			
2			
3			

Urban water supply			
Name	Area	Budget	Period
1			
2			
3			

Irrigation			
Name	Area	Budget	Period
1			
2			
3			

Groundwater development			
Name	Area	Budget	Period
1			
2			
3			

C-2 List of Donor's Assistance Projects

Rural water supply				
Name	Area	Donor's Name	Budget	Period
1				
2				
3				

Urban water supply				
Name	Area	Donor's Name	Budget	Period
1				
2				
3				

Irrigation				
Name	Area	Donor's Name	Budget	Period
1				
2				
3				

Groundwater development				
Name	Area	Donor's Name	Budget	Period
1				
2				
3				

D-1 Meteorological Data

List of Meteorological Station				
Station No	Name	Location	Latitude	Longitude
1				
2				
3				
4				
5				
6				
7				
8				

D-1 (2) Meteorological Data (Monthly Record in past 10 years)

Station 1

Average Monthly Record													
Parameter	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ave.
Rainfall													
Temperature													
Evaporation													
Sunshine													

Annual Record

Annual Rainfall	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002

Station 2

Average Monthly Record													
Parameter	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ave.
Rainfall													
Temperature													
Evaporation													
Sunshine													

Annual Record

Annual Rainfall	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002

Station 3

Average Monthly Record													
Parameter	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ave.
Rainfall													
Temperature													
Evaporation													
Sunshine													

Annual Record

Annual Rainfall	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002

Station number shall correspond with sheet D-1(1)

E-1 Detail Statistics and Social Infrastructure for Each Village

Machakos District

Village name	Population	Household	Av. Revenue	Livelihood	Electricity	Telephone	School	Clinic
1								
2								
3								
4								

Makueni District

Village name	Population	Household	Av. Revenue	Livelihood	Electricity	Telephone	School	Clinic
1								
2								
3								
4								

Mwingi District

Village name	Population	Household	Av. Revenue	Livelihood	Electricity	Telephone	School	Clinic
1								
2								
3								
4								

Kitui District

Village name	Population	Household	Av. Revenue	Livelihood	Electricity	Telephone	School	Clinic
1								
2								
3								
4								



E-2 Inventory of the Source for Drinking Water

Machakos District

Village Name	Water Source (no. & depth)			Pump Type		Problem of Water supply
	Dug well	Tube Well	Surface Water	Hand pump	Motor pump	

Makueni District

Village Name	Water Source (no. & depth)			Pump Type		Problem of Water supply
	Dug well	Tube Well	Surface Water	Hand pump	Motor pump	

Mwingi District

Village Name	Water Source (no. & depth)			Pump Type		Problem of Water supply
	Dug well	Tube Well	Surface Water	Hand pump	Motor pump	

Kitui District

Village Name	Water Source (no. & depth)			Pump Type		Problem of Water supply
	Dug well	Tube Well	Surface Water	Hand pump	Motor pump	

E-3 Inventory of the Water Supply Facilities

Machakos District

Village Name	Public			Private	
	Type III	Type II	Type I	Individual	Communal

Makueni District

Village Name	Public			Private	
	Type III	Type II	Type I	Individual	Communal

Mwingi District

Village Name	Public			Private	
	Type III	Type II	Type I	Individual	Communal

Kitui District

Village Name	Public			Private	
	Type III	Type II	Type I	Individual	Communal

Type III piped network system with household (individual) connections  
 Type II piped radial system with public / commercial faucets (water kiosks)  
 Type I point source facility with a handpump  
 Individual in-house use  
 Communal subdivision use  
 Water tanker supply and Bottle supply are not included

E-4 Inventory of Water Management Committee (WMC) (Member)

Machakos District	Village name	(male / female: persons)												
		leader	secretary	accountant	tariff collector	sanitation	O&M	side job promotion	women & children	watchman	others			
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/

Makueni District	Village name	(male / female: persons)												
		leader	secretary	accountant	tariff collector	sanitation	O&M	side job promotion	women & children	watchman	others			
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/

Mwingi District	Village name	(male / female: persons)												
		leader	secretary	accountant	tariff collector	sanitation	O&M	side job promotion	women & children	watchman	others			
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/

Kitui District	Village name	(male / female: persons)												
		leader	secretary	accountant	tariff collector	sanitation	O&M	side job promotion	women & children	watchman	others			
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/	/

E-5 Inventory of Water Management Committee (WMC) (Activity)

Machakos District	Village name	(male / female: persons)						
		frequency of meeting	account management	tariff collection	sanitation education	O&M	side job promotion	women & child
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/

Makueni District	Village name	(male / female: persons)						
		frequency of meeting	account management	tariff collection	sanitation education	O&M	side job promotion	women & child
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/

Mwingi District	Village name	(male / female: persons)						
		frequency of meeting	account management	tariff collection	sanitation education	O&M	side job promotion	women & child
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/

Kitui District	Village name	(male / female: persons)						
		frequency of meeting	account management	tariff collection	sanitation education	O&M	side job promotion	women & child
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/
		/	/	/	/	/	/	/

frequency of meeting called by leader: weekly - monthly - yearly - after problem happened

tariff collection: ex. 1Ksh/ 20 litter, 10Ksh/month/family, 2Ksh/month/1cattle

ex. collection when repairing charge is required, entirely free charge

sanitation education: weekly - monthly - yearly - when epidemic spread

O&M: weekly - monthly - yearly - after accident happened

side job promotion: "well-done" means that income from side job is well-effective for financial condition of committee.

"moderate" means moderate influence.

"not done" means that side job is not done.

women & child: "well-done" means that women's activity is well-promoted and children can go to school.

"moderate" means moderate influence.

"little" means that improvement is little.



AA-1 Questionnaire for Ministry of Health

Central office  / Provincial office  / District office   
 Province: District:

Statistics and Index of medical, health and hygiene conditions

No.	field	index	2000	2001	2002
1	water supply	percentage of accessibility for safety water			
2	hygiene	morbidity of water borne infectious disease per 1000 persons			
3	medical service	population per 1 doctor			
4		population per 1 nurse			
5		population per 1 bed in medical facilities			
6		number of hospital / health center in the area			
7		number of clinic / dispensary in the area			
8	health	average life span (average life expectancy of newborns)			
9		average life span (male)			
10		average life span (female)			
11		birth rate per 1,000 persons			
12		infants mortality (less than 5years old) per 1000 persons			
13		mortality of pregnant women and nursing mothers per 100,000 persons			
14		diffusion rate of birth control method (percentage for women of 15-49 years old)			
15		AIDS patients per 1,000,000 persons			
16		Malaria patients per 1,000,000 persons			
17					
18					
19					
20					

AA-2 Questionnaire for Ministry of Health

Major disease in rural area and conditions of infection, measure and prevention

No.	diseases	route and conditions of infection in rural area	actual measure and prevention
water diseases			
1	diarrhea		
2	cholera		
3	dysentery		
4	typhoid		
5	A hepatitis		
water-based diseases			
6	oral parasitic disease		
7	bilharzias		
8	dracunclose (ver de Guinee)		
water-washed diseases			
9	eye disease		
10	skin disease		
water-based diseases carried by insects			
11	malaria		
12	dengue fever		
13	yellow fever		
14	trypanosome (sleep disease)		
other disease			
15	tuberculosis		
16	tetanus		
17	hydrophobia		
18	AIDS		
19	B hepatitis		
20			
21			
22			

Activity of public health in rural area

activity	implementing agency / resident, number of staff, contents, visiting system, notification method, acceptance and cooperation by residents	frequency (how many times in a year?)	annual budget (Ksh)	beneficiary's payment / duty
1	hygiene education			
2	health care for mothers & children			
3	vaccination			
4	mass health examination			
5	construction of public toilet / latrine and cleaning and management			
6	cleaning management in the village mowing, waste treatment			

Central office  / Provincial office  / District office   
Province: District:

Statistics and Index of Social development

No.	field	index	2000	2001	2002
1	education	elementary school attendance rate			
2		elementary school attendance rate (male)			
3		elementary school attendance rate (female)			
4		secondary school attendance rate			
5		secondary school attendance rate (male)			
6		secondary school attendance rate (female)			
7		adult literacy rate			
8		adult literacy rate (male)			
9		adult literacy rate (female)			
10	poverty	percentage of low income population (less than 1US\$ per day)			
11		percentage of low income population's income (rate of the lowest 20% population's income) *			
12	economy	consumer price index (as the value of 19__ is 100)			
13		GNP per 1person (US\$)			
14	deforestation	forest area (1,000 km2)			
15	water supply	percentage of accessibility for safety water			
16	hygiene	morbidity of water borne infectious disease per 1000 persons			
17	medical service	population per 1 doctor			
18	health	average life span (average life expectancy of newborns)			
19		average life span (male)			
20		average life span (female)			
21		average life expectancy of newborns (average life expectancy of newborns)			
22		birth rate per 1,000 persons			
23		infants mortality (less than 5years old) per 1000 persons			
24		mortality of pregnant women and nursing mothers per 100,000 persons			
		diffusion rate of birth control method (percentage for women of 15-49 years old)			

\*  $\frac{\text{the sum of the lowest 20\% population's income}}{\text{the sum of total population's income}} \times 100$

Name of organization:

project field and target area	(ex. water supply, health, education, finance, women's activity)
policy/principle/criteria of selecting project site	
cooperation with NGO / commission to NGO	(for assistance / monitoring activity on community enforcement, hygiene education)
Past executed rural water supply project (1)	Year and period, Area, Contents, Cost, Follow-up and Monitoring conditions, Problem
Past executed rural water supply project (2)	Year and period, Area, Contents, Cost, Follow-up and Monitoring conditions, Problem
Past executed rural water supply project (3)	Year and period, Area, Contents, Cost, Follow-up and Monitoring conditions, Problem

Name of consultant: District: Division:  
 Province: Town / Village:

Technical staff

No.	field	class of staff	work experience	number of staff (persons)	required daily allowance (Ksh/day)	unit price per month (Ksh)
1	community enforcement	general management for consulting service and reporting	10 years or so			
2		supervisor for extension staff	5 years or so			
3		extension staff	3 years or so			
4						
5	Hygiene education	general management for consulting service and reporting	10 years or so			
6		supervisor for extension staff	5 years or so			
7		extension staff	3 years or so			
8						
9		driver				
10		other staff				

Work experience of company

No.	year and period (month)	Donor	contents (field, number of village)	required staff (class & persons)	cost (Ksh)
1					
2					
3					
4					

Possessed equipments

No.	equipment	Item & number
1	Vehicle	
2	Audiovisual education aids	
3	others	

AE-1 Inventory of Spare Parts and Maintenance Service

Name of Agent: \_\_\_\_\_ District: \_\_\_\_\_ Division: \_\_\_\_\_  
 Province: \_\_\_\_\_  
 Town / Village: \_\_\_\_\_

\* service charge for change parts by dispatched mechanic

No.	Production	Manu factures	Country	Parts name	price (Ksh)	stock in warehouse	required days for procure ment (day)	* service charge (Ksh)
ex.	submersible pump	Grundfos	Denmark	strainer	10,000 Ksh/piece	20 pieces	30 days	10,000 Ksh
ex.	hand pump	Afridev	India	bearing bush	1,000 Ksh/4piece	100 pieces	10 days	1,000 Ksh
ex.	generator	Denyo	Japan	air cleaner	1,000 Ksh/piece	10 pieces	10 days	change by resident
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								