

<現況写真>



写真 1-1-(1) : 薪の省エネ活用



写真 1-1-(2) : 土築の集落



写真 1-1-(3) : ワジ沿いの緑



写真 1-1-(4) : 薪集積場

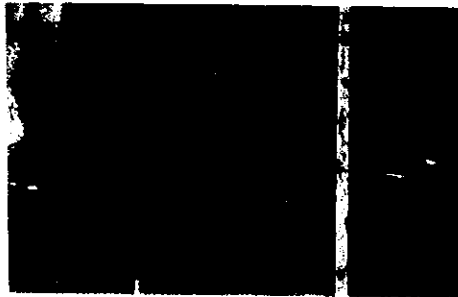


写真 1-1-(5) : 改良かまど普及案内



写真 1-1-(6) : マリ国 FAYA 森林保護区



写真 1-1-(7) : ニジェール河流域の緑地帯



写真 1-1-(8) : マリ国海岸地区 : Niayes 地区の栽培風景



写真 1-1-(9) : 農牧地区 : 農業主体地域の風景



写真 1-1-(10) : ウォーターハーベスティング手法の一例



写真 1-1-(11) : アガバストラ手法の一例



写真 1-1-(12) : 風食事例

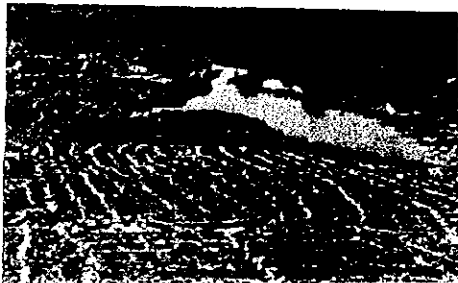


写真 1-1-(13) : バンジガラ 畑作り



写真 1-1-(14) : バンジガラ 水確保



写真 1-1-(15) : バンジガラ 風景



写真 1-1-(16) : 農牧地区 : 牧畜主体地域の風景



写真 1-1-(17) : 植生豊かな地区の風景

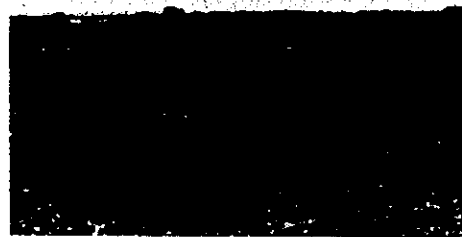


写真 1-1-(18) : 大規模灌漑地帯



写真 1-1-(19) : 川魚

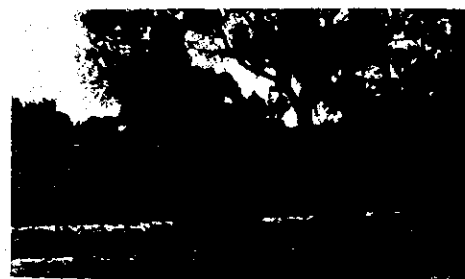


写真 1-1-(20) : 学校植林

写真1 降雨量 400mm以下



マリ ドウエンザ:乾季であるが植生は有る

写真2 降雨量 400mm以下



マリ ドウエンザ:至る途中:ブル族と牛:植生は疎

写真3 降雨量 400mm<800mm



マリ、ニオノ近郊：プル族の住居（7年居住）と家畜の囲い

写真4 降雨量 400mm<



マリ パンジャガラ：岩盤の上に作った耕地

写真5 降雨量400mm<



マリ モプチ：水位が上がればここが冠水し一大米作地となる

写真6 400mm<800mm



マリ：若木が家畜に食べられないよう保護する囲い

写真7 400mm>



セネガル リシャトール：セネガル川沿いの米作地帯，二期作の刈り取り後の田んぼに入る牛、直ぐ傍では田植えがされている

写真8 400mm<



セネガル ダカール：集中飼育方法、濃厚飼料を給与している

写真9 屠場



マリ ニオノ付近：簡易屠場、水は無い

写真10 屠場



マリ モプチ：頭部の処理、後方は角捨て場

写真11 屠場



セネガル ダカール：極めて良く管理された屠場、機械は完全に機能している

写真12 屠場



セネガル ダカール：屠場内に放置された角の山、左手が生体係留場となっている

Annex 1: Profile of Village Community

1. Social profile

- 1.1 Name of village community:
- 1.2 Name of district or region which the village community belongs to:
- 1.3 Distribution of population:
Children under 5 years; children 5 – 15 years; adults over 15 years.
- 1.4 Number of households (families):
- 1.5 Number of new settlers, if any: ; when? ; where from?
- 1.6 Classification of the population by ethnic group:
Wolof: %; Fulbe: %; (): %; (): %.
- 1.7 Classification of the population by religion:
Islam: %; traditional animism: %; Christianity: %; others (): %.
- 1.8 Patterns of seasonal migration, if any:
Number of migrants from () to the community: ; when? ; why?
Number of migrants from the community to (): ; when? ; why?
- 1.9 Land ownership and distribution (based on the recognition of villagers):
Landless: %; less than 1 ha.: %; 1-5 ha.: %; 5-10 ha.: %;
more than 10 ha. %.
- 1.10 Ratio of the poor to the total population (based on the recognition of villagers): %.
- 1.11 Community organizations or associations, if any:
Name of organization: ; activities: ; number of participants:
- 1.12 Decision-making process in the village community:
informal: ; administrative:
- 1.13 Historical events, if any:
e.g. natural disaster, ethnic conflicts, large-scale migration.

2. Geographical and natural conditions

- 2.1 Draw a map of the village community and mark in it the followings:
Mountain/ hill, river, forest, land use (residence areas, agricultural fields, pastoral areas, factories),
retailing shops, major economic infrastructure (roads, storage facilities, irrigation facilities:
canal/pond/well), major social infrastructure (school, health care center, drinking water facilities),
and religious monuments.
- 2.2 Area of the village community: square km.
- 2.3 Periods of the dry and rainy seasons:
- 2.4 Annual precipitation: mm; recent change, if any:

- 2.5 Annual fluctuation in temperature:
- 2.6 Environmental constraints recognized by villagers:
e.g. water shortage; deterioration of water quality; decrease of trees; decrease of arable lands;
decrease of pastureland; floods; drought; deterioration of soil fertility; or land erosion.
- 2.7 Measures against the above environmental constraints (natural resources management methods):

3. Economic profile

- 3.1 Major industries (income-generating activities):
- 3.2 Classification of the working population by industry (activity):
Agriculture: %; livestock raising: %; (): %; (): %.
- 3.3 Major crops cultivated:
- 3.4 Production volume or cropping area by crop:
- 3.5 Recent production trend by crop:
- 3.6 Describe a typical cropping calendar.
- 3.7 Major livestock breeds raised:
- 3.8 Type of raising: pasturing in a specific area; nomadic herding; or in-shed raising.
- 3.9 Recent trend in number of livestock heads by breed:
- 3.10 Recent trend of other industries or productive activities: increasing or decreasing.
- 3.11 Major sales channels by crop/ product: e.g. local market; processing factory; or middleman.
- 3.12 Distance to the above market or factory:
- 3.13 Major transportation used to the above market or factory:
- 3.14 Differences in job between male and female workers, if any:
- 3.15 Economic constraints recognized in the village community:
e.g. lack of production inputs (Specify.); lack of production-related infrastructure (Specify.);
vulnerability to natural disaster (Specify.); poor physical access to markets; limited sales
channels; lack of labor; limited job opportunities; or poor access to credit.

4. Daily life of villagers

- 4.1 Staple food crops:
- 4.2 Other foods frequently consumed:
- 4.3 Major ways of getting foods by item: self-sufficient; purchased in the village community
(where?); purchased outside the village community (where?)
- 4.4 Literacy rate: male: %; female: %.
- 4.5 Average educational background: male: ; female: .
- 4.6 Major fuels:
Ways of getting the fuels:

- 4.7 Average life expectancy: male: years; female: years.
- 4.8 Major diseases and cause of death:
- 4.9 Type of water supply: well; river; rainfall; or purchase.
- 4.10 Access to services outside the village community:
Hospital or other medical center: (1)location; (2)distance; (3)major transportation used; and
(4) time required.
Secondary school: same as above.
Commercial center for shopping: same as above.
- 4.11 Available communication tools: telephone; postal service; radio; television; or internet.
- 4.12 Major constraints in daily life recognized in the village community:
e.g. poor access to drinking water; low quality of medical service; difficulty in getting fuels; poor
road conditions; or poor housing.

5. Interventions from outsiders

- 5.1 Assistance from donor agencies: Yes or No.
If Yes, (1) name of donor:
(2) project type and contents:
(3) period:
- 5.2 Outsiders related to the village community: local official; field worker; middleman or broker;
religious organization; other types of NGO (Specify.); foreign enterprise (Specify.);
- 5.3 Existence of formal (governmental or private) services: extension service; financial service; and
input delivery services.

6. Others

- 6.1 Date:
- 6.2 Major informants and sources:

A. Crop farmer (owner or tenant)

A.1 Experience in crop farming: years.

A.2 Crops cultivated:

Varieties of the staple food crops:

A.3 Planted area by crop:

A.4 Describe your cropping calendar.

A.5 Recent change in cropping pattern, if any: ; why?:

A.6 Yield by crop: kg/ha.

A.7 Recent change in yield by crop: increasing or decreasing; why?:

A.8 Ratio of sale to the total harvest by crop: %.

A.9 How to get inputs:

Seed (): previous harvest; private dealer; cooperative; or others (Specify.)

Seed (): previous harvest; private dealer; cooperative; or others (Specify.)

Fertilizer: not used; animal manure only; private dealer; cooperative; or others (Specify.)

Chemicals: not used; private dealer; cooperative; or others (Specify.)

A.10 Applied amount by crop:

Fertilizer (): kg/ha.

Chemical (): kg/ha.

A.11 Water supply: rainfall only; irrigated (canal; well; pond; or river)

A.12 Number of family members engaged in farming: ; annual or seasonal (when?)

A.13 Number of employed workers, if any: ; annual or seasonal (when?); activity in charge:

A.14 Work division between male and female farmers/workers, if any:

A.15 Describe your typical working timetable:

Differences between male and female farmers/workers:

A.16 Use of draft animals:

No or Yes (Breed: ; heads; purpose: ; owned or rent from ()).

A.17 Use of agricultural tools or machines: No or Yes (Specify.); purpose:

A.18 Annual production cost:

Recent trend in production cost: unchanged, increasing or decreasing; why?

A.19 Sales channel by crop: market (where?); middleman; processing factory (where?)

A.20 Transportation for sales: not used or used(Specify.); owned or rent from ().

A.21 Availability of storage facility:

If available, (1) owned or rent from (); (2) storage period by crop:

A.22 Recent trend in sales price (producer's price) by crop: unchanged, rising or declining: why?

A.23 Who determines the sales price?: yourself; other family members (Specify.); middleman; market; or others (Specify.)

- A.24 Annual marketing cost:
- A.25 Constraints in production and post-harvest practice:
- A.26 Engaged in a seasonal side-business: No or Yes (Details: _____ ; when? _____)

B. Livestock raiser /herder (owner or tenant)

- B.1 Number of heads by breed:
- B.2 Experience in livestock raising: _____ years.
- B.3 Type of raising: pasturing in a specific area; nomadic herding; or in-shed raising.
- B.4 Main purpose of raising: regular sales in kind; regular sales of livestock products (egg, milk, meat, other processed products (Specify.); cashable assets for emergent needs; draft animal for your farming; draft animal for rent; use of dung as manure or fuels .
- B.5 Recent change in breeding, if any: _____ ; why?
- B.6 Describe your raising calendar.
- B.7 Type of feed: natural grass; hay or dried grass; formula feed.
- B.8 How to get feed: from pastureland; purchase from (_____).
- B.9 Number of family members engaged in raising: _____ ; annual or seasonal (when?)
- B.10 Number of employed workers, if any: _____ ; annual or seasonal (when?); activity in charge:
- B.11 Work division between male and female herders/workers, if any:
- B.12 Describe your typical working timetable.
Differences between male and female herders/workers:
- B.13 Annual raising cost:
Recent trend in raising cost: unchanged, increasing or decreasing; why?
- B.14 Constraints in raising:
e.g. shortage of pastureland (seasonal trend, if any); poor animal hygiene; theft of livestock; escape of livestock; water shortage.
- B.15 Sales channel by breed or product: market (where?); middleman; slaughterhouse (where?); processing factory (where?)
- B.16 Specific season for sales by breed or product:
- B.17 Transportation for sales: not used or used (Specify.); owned or rent from (_____).
- B.18 Recent trend in sales price (producer's price) by breed or product: unchanged, rising or declining: why?
- B.19 Who determines the sales price?: yourself; other family members (Specify.); middleman; market; others (Specify.)
- B.20 Annual marketing cost:
- B.21 Constraints in marketing activities:

C. Other independent businessman

C.1 Type of business:

e.g. middleman/broker (what product?); retailer; handcraft maker; or others (Specify.)

C.2 Experience in the business: years.

C.3 Number of employees:

C.4 Previous work experience, if any: ; reason for the job change:

C.5 Constraints in the business: e.g. lack of seed money; too expensive costs; low quality of employees.

D. Common to the informants A, B and C

D.1 Existence of producers' **cooperative**: Yes or **No**.

D.1.2 If Yes, (1) Organizer: central or local government; large farmers; small farmers; private companies (Specify.); NGO (Specify.); others (Specify.)

(2) Contents of the services provided: cooperative shipping; cooperative purchase of inputs; credit; others (Specify.)

(3) Number of members:

(4) Members' duty, if any: participation in regular meetings (How often?); membership fee (How much?); cooperative work (Specify.)

D.1.3 If Yes, do you participate in the cooperative? Yes or No (Reason:).

D.1.4 If **No**, what kind of services do you expect a cooperative?

D. 2 Have you ever used **credit/loan**?

D.2.1 If Yes, (1) Type of lender: bank; cooperative; private lenders (Specify.).

(2) Amount: or in kind (Specify.)

(3) Period:

(4) Interest rate:

(5) Used for: purchase of inputs (Specify.); family expenses (Specify.)

D.2.2 If No, why?:

e.g. Not necessary; Absence of lenders; High interest rate; Complicated procedure; High-level requirements for application; or others (Specify.)

D.3 Have you ever received **extension services** or **vocational training**?

D.3.1 If Yes, (1) Organizer: central or local government; private company (Specify.); NGO (Specify.); others (Specify.)

(2) Contents of the services provided:

(3) Frequency: once a year; irregularly; or ().

D.3.2 If No, why?:

e.g. not necessary; unknown; no time; too difficult to understand the contents; unsuitable contents; long distance to the training site.

D.3.3 What kind of extension services or training do you need?

E. Questions for wage earner (employee)

E.1 Employer:

E.2 Length of service: years.

E.3 Contents of service: Farming activities (Specify.); or others (Specify.)

E.4 Previous work experience, if any: ; reason for the job change:

E.5 Have you ever used credit/loan?

E.5.1 If Yes, (1) Type of lender: Bank; Cooperative; Private lenders (Specify.).

 (2) Amount: or in kind (Specify.)

 (3) Period:

 (4) Interest rate:

 (5) Used for: purchase of inputs (Specify.); family expenses (Specify.)

E.5.2 If No, why?:

 e.g. not necessary; absence of lenders; high interest rate; complicated procedure; high-level requirements for application.

3. Food security

1.1 Staple food crops:

1.2 Other foods frequently consumed:

1.3 Recent trend in consumption by crop/food: increasing or decreasing; why?

1.4 How to get each of the crops/foods:

 Crop/food (): self-sufficient %; purchased %

 Crop/food (): self-sufficient %; purchased %

1.5 Mainly purchased from: a retailer in the village community; a retailer outside the village (where?); others (Specify.)

3.6 Recent trend in consumer's price by crop/food: rising or declining; why?

3.7 Seasonal change in consumer's price, if any:

3.8 Ratio of food expenses to the total household budget: %.

3.9 Have you ever received food subsidy?: Yes or No.

 If Yes, (1) when?

 (2) type: food stamp; in kind (Specify.); cash; others (Specify.)

 (3) quantity:

3.10 How to store food crops/foods:

3.11 Are you satisfied with your diet?: Yes or No.

 If No, (1) specify insufficient crops/foods:

(2) seasonal shortage:

(3) other problems: e.g. poor quality; poor skill for preservation.

(4) safety nets, if any:

3.12 Differences in food consumption between men and women:

3.13 Priority in food consumption among family members:

4. Other constraints in daily life

e.g. Poor housing; inadequate water supply (quality, quantity, access); disease (Specify.); poor public service (school, hospital/health care center, telecommunication, postal service).

5. Others

5.1 Date:

5.2 Name of interviewer:

JICA

