# Ghana - Afrint Household Level Data 2002 and 2008, Round I & II

**Lund University - Swedish Government**

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# Overview

## Identification

**ID NUMBER**
GHA-C-DAMAA-AFRINT-2014-v1.0

## Version

**VERSION DESCRIPTION**
Version1.0 (September, 2014)

**PRODUCTION DATE**
2010-09-30

## Overview

**ABSTRACT**
Afrint intensification of food crops agriculture in sub-Saharan Africa Swedish-African Research Network Agricultural development and its relation to food security and poverty alleviation Primary research in nine sub-Saharan African countries. Afrint - three phases 200I-2016.

Afrint I - 2001-2005: The African Food Crisis - the Relevance of Asian Experiences

Afrint II - 2007-2010:The Millennium Development Goals and the African Food Crisis

**KIND OF DATA**
Aggregate data [agg]

**UNITS OF ANALYSIS**
Household

## Scope

**NOTES**
Scope of Surey Round I (2001-2005)

Household demographic and socio-economic characteristics

Farm and crop management

Maize

Cassava

Cassava, marketing conditions

Sorghum

Rice

Other food crops and vegetables

Non-food cash crops

Land resources

Livestock

Labour resources

Institutional conditions

Incomes and expenditures

Scope of Survey Round II (2007-2010).

Household Demographic and Socio-Economic Characteristics

Farm and Crop Management

Crops

Maize

Cassava

Sorghum

Rice

Rural - Urban and Rural - Rural Linkages (staple crops)

Other food crops and vegetables (for local markets)

Non-food cash crops (wholly or partly for export)

Agricultural Techniques

Land resources

Livestock & Fish

Livestock

**TOPICS**

| Topic | Vocabulary | URI |
|---|---|---|
| Food (production, crisis) | World Bank | |

## Coverage

**GEOGRAPHIC COVERAGE (1)**
Sub-Saharan Africa, (Ethiopia, Ghana, Keny, Malawi, Nigeria, Tanzania, Uganda, Zambia)

**GEOGRAPHIC COVERAGE (2)**
Regions within selected countries

**GEOGRAPHIC UNIT**
Regions within selected countries

**UNIVERSE**
Farming Household

## Producers and Sponsors

**PRIMARY INVESTIGATOR(S)**

| Name | Affiliation |
|---|---|
| Lund University | Swedish Government |

**OTHER PRODUCER(S)**

| Name | Affiliation | Role |
|---|---|---|
| Goran Djurefeldt | Lund University | Project leader |
| Mikael Hammarkjold | Lund University | Team member |
| Hans Holmen | Lund University | Team member |
| Magnus Jirstrom | Lund University | Team member |
| Rolf Larsson | Lund Uniersty | Team member |
| Agnes Anderson Djurefeldt | Lund University | Team Leader |

**FUNDING**

| Name | Abbreviation | Role |
|---|---|---|
| Swedish International Development Authority | Sida | Funder |
| Bank of Sweden Tercentenary Foundation | BoSTF | Funder |

## Metadata Production

**METADATA PRODUCED BY**

| Name | Abbreviation | Affiliation | Role |
|---|---|---|---|
| Centre for Data Archiving, Management, Analysis and Advocacy | C-DAMAA | University of Cape Coast | Documentation of the Study |

**DATE OF METADATA PRODUCTION**
2014-09-12

**DDI DOCUMENT VERSION**
Version 1.0 (September, 2014)

**DDI DOCUMENT ID**
DDI-GHA-C-DAMAA-AFRINT-2002-2008-v1.0

# Sampling

## Sampling Procedure

Data collection for the first round of the Afrint project was made in 2002. The data collected as part of the second round are referred to as 2008 data, although in some cases collected in late 2007. From the outset the research team selected five case study countries: Ghana, Kenya, Malawi, Nigeria and Tanzania. Outside francophone Africa, these five countries were ideally suited, in the researchers' view, to charting progress in intensification, induced from below by farmers themselves, or state induced, as in the Asian Green Revolution. At the insistence of Sida, to the original five countries, four more were added: Ethiopia, Mozambique, Uganda and Zambia. Unlike the original five, the three last mentioned countries were deemed less constrained with respect to productive resources in agriculture. Ethiopia on the other hand is peculiar in an African context, with its long history of plough agriculture, and feudal-like social formation. In this project, the heterogeneous sample of countries has proved less cumbersome to work with than one might have expected.

Formally, the Afrint sample was drawn in four stages, of which the country selection described above was the first one. The next stage was regions within countries, followed by selection of villages within regions, and with selection of farm households as the last stage. All stages except the final one have been based on purposive sampling. Data collection was sought to be made at all four levels.The households sampled within these countries were selected with respect to the agricultural potential of the areas in which they reside.The intention was to capture the dynamism in the areas that are 'above average' in terms of ecological and market (infrastructure) endowments but excluding the most extreme cases in this regard.For logistical reasons we could not aim for a sample which is representative in a statistical sense. Instead we aimed at a sample which is illustrative of conditions in the maize-cassava belt, excluding both lowpotential dry and remote areas and extreme outliers at the other end of the scale.

Thus we used a four-stage sample design, with purposive sampling at all stages, except the last one, where households were sampled after having made up household lists. When we compare point estimates from the sample with those from other sources, for examples yields for the various crops with FAO statistics, no apparent sample bias has been detected.

In addition to household questionnaires we also used village questionnaires. Respondents to village interviews were key persons, like villageleaders and extension agents. Investigators were also instructed to conduct focus group interviews with representatives for various segments of the village population, including women farmers. When going for a second round and a panel in 2008, we went for a balanced panel design, i.e. constructing the 2008 sample so that in itself it would be representative of village populations in 2008. This also involved sampling descendants when a household had been partitioned since 2002. In case of sizeable in-migration to a village, we also provided for sampling from the newly arrived households. The 2002-2008 panel thus is a subset of the two cross sectional samples. In itself this subset is not statistically representative of the village population in any of the two years

## Deviations from Sample Design

20.6 Percent

## Response Rate

79.4 Percent

## Weighting

The weight for the data was not provided

# Questionnaires

## Overview

Scope of Surey Round I (2001-2005)

Household demographic and socio-economic characteristics
Farm and crop management
Maize
Cassava
Cassava, marketing conditions
Sorghum
Rice
Other food crops and vegetables
Non-food cash crops
Land resources
Livestock
Labour resources
Institutional conditions
Incomes and expenditures

Scope of survey II
Household Demographic and Socio-Economic Characteristics
Farm and Crop Management
Crops
Maize
Cassava
Sorghum
Rice
Rural - Urban and Rural - Rural Linkages (staple crops)
Other food crops and vegetables (for local markets)
Non-food cash crops (wholly or partly for export)
Agricultural Techniques
Land resources
Livestock & Fish
Livestock

# Data Collection

## Data Collection Dates

| Start | End | Cycle |
|---|---|---|
| 2001 | 2002 | 1 yrs |
| 2007 | 2008 | 1 yrs |

## Time Periods

| Start | End | Cycle |
|---|---|---|
| 2001 | 2010 | 5 years |
| 2001 | | 5 years |

## Data Collection Mode

Face-to-face [f2f]

**DATA COLLECTION NOTES**

The research team worked with a two-pronged strategy for collecting data, building simultaneously on qualitative and quantitative methods. The core of the latter is a survey, which gives the quantitative backbone of the study. The study relied on two strategies: First by drawing as much as possible diachronic and historic data in the collection of qualitative material and other secondary data.

This was done in the macro studies, conducted by the partners in each country and subjected to comparative analysis by the Swedish team. Second, The research built a temporal dimension into the survey by asking the recall method, asking farmers to compare the present situation to earlier times.

## Data Collectors

| Name | Abbreviation | Affiliation |
|---|---|---|
| Gran Djurfeldt | G.D. | Dept of Sociology, Lund University |
| Hans Holmn, | H.H. | Institution for Thematic research, Linkping University |
| Magnus Jirstrm | M.J. | Dept of Social and Economic Geography, Lund University |
| Agnes Andersson | A.A | Dept of Social and Economic Geography, Lund University |
| Johanna Bergman-Lodin | J.B | Dept of Social and Economic Geography, Lund University |
| Cheryl Sjstrm, | C.S. | Dept of Social and Economic Geography, Lund University |
| Dr. Wolday Amha | W.A | Ethiopian Economic Association |
| Dr. Teketel Abebe | T.A | Addis Ababa University |
| Dr. Mulat Demeke | M.D | Addis Ababa University |
| Professor Willis Oluoch-Kosura | W.O | African Economic Research Consortium (AERC) |
| Dr. Stephen K. Wambugu | S.K.W | Department of Geography, Kenyatta University |

**SUPERVISION**

The enumerators and supervisors were trained at the same time, though supervisors received extra couching on supervision. Enumerators stayed in the villages during the survey period. Two enumerators were involved in administering the household questionnaires at a time. While one was probing, the other was writing down the answer.
Through this, errors in both probing and recording were minimized. Participatory Rural Appraisal techniques were used to administer the village level questionnaire in the selected villages.

# Data Processing

## Data Editing

No edting specification given

## Other Processing

Not reported

# Data Appraisal

## Estimates of Sampling Error

No sampling error estimates given

## Other forms of Data Appraisal

No other froms of appraisal given.

# Related Materials

## Questionnaires

### Afrint Project Questinnare 2002 and 2008

| | |
|---|---|
| Title | Afrint Project Questinnare 2002 and 2008 |
| subtitle | AFRINT 2002 and 2008 |
| Author(s) | Swedish team Göran Djurfeldt (team leader), Dept of Sociology, Lund University Hans Holmén, Institution for Thematic research, Linköping University Magnus Jirström, Dept of Social and Economic Geography, Lund University Agnes Andersson, Dept of Social a |
| Date | 2014-09-12 |
| Country | Ghana |
| Language | English |
| Contributor(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Publisher(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Description | This is the questionnaire for Afrint household survey I. |
| Table of contents | Scope of surey I<br>Household demographic and socio-economic characteristics<br>Farm and crop management<br>Maize<br>Cassava<br>Cassava, marketing conditions<br>Sorghum<br>Rice<br>Other food crops and vegetables<br>Non-food cash crops<br>Land resources<br>Livestock<br>Labour resources<br>Institutional conditions<br>Incomes and expenditures<br>Rural - Urban and Rural - Rural Linkages (staple crops)<br>Other food crops and vegetables (for local markets)<br>Non-food cash crops (wholly or partly for export)<br>Agricultural Techniques<br>Land resources |
| Filename | Afrint_I_household_questionnaire.pdf |

### Afrint Project Questinnare II

| | |
|---|---|
| Title | Afrint Project Questinnare II |
| subtitle | Household information |
| Author(s) | Swedish team Göran Djurfeldt (team leader), Dept of Sociology, Lund University Hans Holmén, Institution for Thematic research, Linköping University Magnus Jirström, Dept of Social and Economic Geography, Lund University Agnes Andersson, Dept of Social a |
| Date | 2014-09-12 |
| Country | Ghana |
| Language | English |
| Contributor(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Publisher(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Description | This is the questionnaire for Afrint household survey I |

| | |
|---|---|
| Table of contents | Scope of survey II<br>Household Demographic and Socio-Economic Characteristics<br>Farm and Crop Management<br>Crops<br>Maize<br>Cassava<br>Sorghum<br>Rice |
| Filename | Afrint_II_household_questionnaire.pdf |

## Reports

### The Millennium Development Goals and the African Food Crisis-2011

| | |
|---|---|
| Title | The Millennium Development Goals and the African Food Crisis-2011 |
| subtitle | Afrint II REPORT-2011 |
| Author(s) | Göran Djurfeldt , Agnes Andersson , Hans Holmén , Magnus Jirström |
| Date | 2014-09-12T03:00 |
| Country | Ghana |
| Language | English |
| Contributor(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Publisher(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Description | This report summarises research carried out during three years (2007– 2010) in the Sida-financed Afrint II project. The most salient, policyrelevant conclusions deal with maize, which is the biggest food crop in sub-Saharan Africa (SSA), and with seed-fertilizer technology, commercialisation and impacts of government policies |
| Table of contents | Background and methodology<br>Brief on methodology<br>Comparing cross-sections 2002 and 2008<br>Agricultural policy options<br>Concluding reflections on policy relevance<br>Looking ahead<br>References |
| Filename | Report.pdf |

## Other materials

### Afrint Project

| | |
|---|---|
| Title | Afrint Project |
| subtitle | African food crisis – the Nigerian case study |
| Author(s) | Kormawa, P. , Okike, I. , Okechukwu, R. , Akande, S. O. |
| Date | 2014-09-12 |
| Country | Nigeria |
| Language | English |
| Contributor(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Publisher(s) | Centre for Data Archiving, Management, Analysis and Advocacy (C-DAMAA) |
| Description | This document is an additonal information on Afrint household level data under Nigeria survey. |

| | |
|---|---|
| Table of contents | BACKGROUND<br>Survey Methodology and data<br>Sampling of survey villages and households<br>Survey Implementation<br>Recruitment and Training of Enumerators<br>Field Supervision<br>Data Entry, Cleaning and Analysis<br>Proof reading to assure data quality<br>Village level determinants of agricultural intensification<br>Physical endowment of villages<br>Infrastructure and markets in selected villages<br>Public support to villages<br>Framer organizations<br>Land Acquisition<br>Indicators of intensification at the village level<br><br>Descriptive and econometric analysis of household data<br>Econometric analysis<br>Analytical framework<br>Quantitative variables used in econometric models<br>Household socio-economic characteristics<br>Cassava and Maize Production Functions<br>Constraints to household food production<br>Productivity trends and adoption of new technologies<br>Trends in productivity of cassava and maize over time<br>Cassava productivity during pre-SAP, SAP and post-SAP periods<br>Maize productivity during pre-SAP, SAP and post-SAP periods<br>Determinants for cassava and maize technologies adoption<br>Maize production technology adoption<br>Cassava production technology adoption<br>Yield differences and commercialization of cassava and maize<br>Cassava yield difference<br>Maize yield difference<br>Crop Productivity and commercialization<br>Maize commercialization<br>Cassava commercialization<br>Summary and conclusions<br>Production gains and trends<br>Productivity<br><br>Extent in differences in technology adoption<br>Differences in marketing |
| Filename | Notes.pdf |