

RESUME

Name of staff: Mbaye Kébé
Occupation: Senior statistician and IT/IS specialist
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Briefcase: <https://www.mbayekebe.net>

KEY QUALIFICATIONS :

Statistics, econometrics and information technology, including:

- Design, implementation and evaluation, including data quality assessment of complex statistical operations (large-scale agricultural, forestry, fisheries and other surveys, censuses, routine information systems);
- Strategic planning/operational planning of statistical programs for public and private organizations.
- Strategic planning/operational planning of information technology/information systems (IT/IS) for private and government organizations.
- Data quality assessment, computerized collection, compilation, storage, processing, analysis and dissemination for surveys and censuses.
- Quantitative methods including statistical sampling, forecasting, econometric methods and models, dynamic and linear programming, and biometrics.
- Design and implementation of management information systems and database management systems, data warehouses.
- Design and implementation of analytical reporting systems (dashboards, visualization tools).
- Machine Learning, Artificial Intelligence, Data Mining for Big Data analysis.

Basic education:

Institution	degree	Year of graduation
American Computer Science Institute, Alabama, USA.	Bachelor of Science. in computer science	2000
Free University of Brussels, Belgium	Master of Science in Applied Mathematics	1977
Free University of Brussels, Belgium	“ Special License ” Doctorate in Statistics	1979

Relevant additional education and training:

- Horton Consulting Inc: E-Learning by Design Certificate, March 2008.
- Microsoft Professional Certification, Microsoft Certified Solutions Developer (MCSD) Microsoft Corporation, USA 2002.
- Graduate Diploma in Electronic Engineering Technology - Associate in Applied Science - Cleveland Institute of Electronics, Ohio, USA, 2002.
- Diploma in Digital Electronic Technologies, NRI School of Electronics NW, Washington, USA, 1993.

Computer skills

Operating systems: DOS, Linux, Windows

Application, web servers: Drupal, Microsoft Office Suite, IBM, Google, AWA cloud

programming/development **environment : C/C++, Java, Python, JavaScript, HTML5.**

Software packages, dbms : SPSS for Windows, SAS, R, CSPro, Survey Solutions, Arcview - GIS, Google Maps, Google Earth, MS SQL Servers, MySQL, DynamoDB. Recent familiarity with HiveSQL and Hadoop distributed file system.

Summary of relevant experience:

30 years of professional experience, conducting **censuses and surveys** (statistics, agricultural surveys/censuses, household surveys, information systems, results-based management, monitoring and evaluation) in developed countries (Canada , Italy) and in developing countries and countries with economies in transition. (Angola, Belize, Botswana, Cambodia, Cape Verde, Gambia, Guinea-Bissau, Lesotho, Mexico, Myanmar, Namibia, Nepal, Uganda, Central African Republic, Panama, Romania, Senegal, Sudan, Swaziland, Tanzania, Zanzibar, Chad, Vanuatu, Zambia, Malawi, Ghana, Zimbabwe, Ethiopia), works and various aspects such as:

Experience in statistical evaluation of data and information related to management processes and interpretation of results.

Experience in the design, use and review of composite indicators, as well as the use of statistical survey techniques, quantitative survey design and multivariate analysis of survey results.

Experience in applying statistical knowledge and processes to environmental issues.

Experience in data management to ensure data quality, consistency and comparability to support decision-making processes at different levels.

Currently an International Consultant in the areas of research and training on issues related to post-harvest losses. She also carries out research, advice and training in Artificial Intelligence , Machine Learning, Business Intelligence, Data Visualization (Dashboard with Tableau, Microsoft PowerBI), data warehousing, data mining, statistics and other aspects of Big Data, Data Science, Analytics with R., SPSS. ,SQL.

Hiring record:

2022 to 2024

AFRISTAT Senior Consultant in charge of:

Design of a reproducible research methodology to collect, store, process and analyze socio-economic data (cereal production and losses) of rural households in the Republic of Mali. More precisely, questionnaire design, survey methodology and sampling, data collection via electronic tablets connected to the Survey Solutions software developed by the World Bank, data processing via SPSS and Excel, training of interviewers and supervisors via Microsoft Team/ /Zoom/Google Meet, and a specially developed eLearning platform.

Senior quality assurance consultant Ernest & Young for *manufacturing companies In Mozambique: complete cartography , Capacity building and business surveys.* “

Tasks during the project phases would include:

Phase 1- Mapping of manufacturing companies

- Review of the extension strategy
- Revision of the interviewer training manual
- Review of the Quality Control Plan
- Revision of the questionnaire
- Database review

Phase 2 – Capacity Development

- Preparation of training materials for technicians (statisticians and IT professionals) of the National Institute of Statistics (INE) and the Ministry of Industry and Commerce (MIIC)
- Prepare the training report.

Phase 3: Implementation of the survey (1000 companies)

- Sampling plan (in collaboration with the counterpart statistician)
- Revision of the investigation training manual
- Review of field work quality control plan
- Review of the final questionnaire
- Review of the final questionnaire interface
- Final review of the database
- Review of tabulation plan
- Review of the final project report

2015 to 2022

Food and Agriculture Organization of the United Nations (FAO), Rome, Italy

Currently in charge of research on sampling methods for the collection, processing, analysis and dissemination of statistics on post-harvest losses. The investigation would result in:

- ✓ The development of improved methods of collecting and processing primary and secondary data in this area and the preparation and publication of manuals for use by FAO member countries.
- ✓ The development of statistical models to predict post-harvest losses based on relevant factors.
- ✓ Train counterpart national staff in data collection, processing, analysis, writing and dissemination.

Specialist in agricultural censuses and surveys (Sample design, processing, analysis and dissemination of data):

- ✓ Design and implementation of post-harvest loss surveys in Ghana, Malawi, Namibia and Zimbabwe (2017-2018), through a technical assistance program.
- ✓ Technical assistance and preparation of the project document Comprehensive Agricultural Census of the Republic of Sudan.
- ✓ Development of the Belize Agricultural and Rural Statistics Strategic Plan.
- ✓ Sampling methodology expert and data analyst for the Angola Agriculture and Fisheries Census 2019/2021, including design of the census methodology and a sample of 65,000 households, setup of the Survey Solutions system for data collection with Samsung tablets and post-field sample weighing. . data collection and calculation of variations in key indicators.
- ✓ Lead consultant for design, implementation, data processing and analysis for the Ethiopian on-farm and off-farm post-harvest surveys 2021/2022.
- ✓ Senior consultant for the design, implementation, processing and analysis of data from off-farm post-harvest surveys Mali 2022/2023.
- ✓

2009 - 2014 National Planning Commission, Office of the President of the Republic of Namibia

International Advisor to the Planning Directorate of the Ministry of Agriculture, Water and Forestry (MAWF) of the Republic of Namibia. Responsible for the design and implementation of the Ministry's agricultural management information system, covering all relevant aspects of information system design, with data modeling, basic design and implementation of data ; implemented systems for data creation, data processing, data analysis, reporting via dashboards and distribution.

2002 to 2009 IDÉE Internationale, Quebec, CANADA

Senior Statistician and IT/IS specialist in charge of surveys/census and secondary data sources (administrative records systems, surveys) (methodologies, sampling plans, data processing and analysis) with emphasis on use of a data quality assessment framework carried out for results-oriented monitoring. and Evaluation – LSMS 2003-2005 in the Union of Myanmar – and other information systems related to results-based monitoring and evaluation – UNDP Cambodia Poverty Monitoring and Analysis Project, 2002-2003, design and development of information systems (central warehouse databases), strategic planning of statistical programs, IT/IS, data processing and analysis, software development and related training activities.

2001 to 2002 Food and Agriculture Organization of the United Nations (FAO), Rome, Italy

FAO international consultant on agricultural data quality for the inclusion of gender aspects in agricultural statistics. Tasks included reviewing the statistics produced and training staff (Namibia, Uganda and Zambia) on disaggregating various statistics by gender.

1994 to 2001 UK Department for International Development (DFID), Republic of Namibia

Technical Advisor on Statistics/Information Systems to the Government of Namibia Statistician, National Planning Commission, Office of the President and Director of Planning, Ministry of Agriculture. Tasks included the design and implementation of Namibia's first agricultural census (communal and commercial sectors), the design and implementation of Namibia's annual agricultural surveys and the establishment of a socio-economic database. economic including primary (census, survey) and secondary data collection sources. All censuses, including survey implementation, sampling plan, fieldwork organization and training of trainers, manual designs, data processing, analysis and report writing .

1987 to 1994 Food and Agriculture Organization of the United Nations (FAO), Italy.

Sampling statistician and data processing expert; He has worked in Rome, Cape Verde, Guinea Bissau, Central African Republic, Zambia, Zimbabwe, Tanzania (Zanzibar Islands), Vanuatu, Cambodia, Botswana and Lesotho, on investigations, censuses and secondary data. Tasks included survey/census design/implementation, survey/census data processing, staff training and, primarily, review of national statistical systems (data collection, analysis, dissemination) in terms of organization of statistical programs, quality, timeliness and relevance of data, and draft recommendations for improvement. their.

1981 to 1986 Société de Développement Agricole de Casamance (SOMIVAC), Senegal.

Responsible for BEEP monitoring and evaluation statistics in charge of planning, implementing all evaluations linked to surveys and setting up a regional agrosocioeconomic database for the entire southern region of Senegal .

Detailed recent relevant experience:

2014-2024:

- Food and Agriculture Organization of the United Nations (FAO), Rome, Italy. FAO international consultant for the Global Strategy to Improve Agricultural and Rural Statistics. Research and development of improved methods for collecting, processing and analyzing data on post-harvest losses in developing countries. Research and development of statistical models predicting post-harvest losses.
- Design and implementation of post-harvest loss surveys in Ghana, Malawi, Namibia, Mali and Zimbabwe.
- Technical assistance and preparation of the project document Comprehensive Agricultural Census of the Republic of Sudan.
- Belize Strategic Plan for Agricultural and Rural Statistics (SPARS)
- Agricultural agent responsible for developing the sampling methodology and data analysis/tabulation/weighing for the Angolan Agricultural Census 2019/2021.
- Design and help implement the Mozambique Manufacturing Survey.

2010-2014:

- International advisor to the Ministry of Agriculture, Water and Forests (MAWF). In charge of the design and implementation of the Ministry's Agricultural Management Information System (AMIS), powered by agricultural surveys and secondary data. Through a series of training workshops, national counterpart staff were trained in all relevant aspects of agricultural information system design, including information modeling, design and implementation of databases, creation, processing and analysis of data, and generation and dissemination of reports. The system consists of a central data warehouse of primary and secondary data for agricultural planning and decision making; access to the system is via the ministry's SharePoint 2010 server portal running on a blade system; Users at the ministry's headquarters and regional offices can query the system, create dashboards and produce standard and ad hoc reports tailored to operational, tactical and strategic decision-making.

2009-2010

- Millennium Challenge Corporation United States Washington. International IDEA Consultant and Team Leader at Millennium Challenge Corporation, Lesotho. In charge of the design and implementation of a data quality assessment study for the MCA-Lesotho Compact Monitoring and Evaluation Unit (<http://www.mca.org.ls>). The tasks included designing and implementing the study to assess the quality of data/information generated by the various programs and projects of the Lesotho Compact and making recommendations for an effective system of collection, processing, data analysis and reporting.
- Food and Agriculture Organization of the United Nations (FAO), Rome, Italy. FAO International Consultant to the Ministry of Agriculture, Water and Forestry (MAWF) and the Central Bureau of Statistics (CBS), Republic of Namibia. Responsible for the design and implementation of a central data warehouse of agricultural censuses/surveys and secondary data for planning and decision making using Microsoft Business Intelligence tools. The tasks also included assisting the CBS in evaluating the 2004/5 Agricultural Census dataset and making recommendations for an effective data processing/analysis and reporting system.

2008:

- Food and Agriculture Organization of the United Nations (FAO), Rome, Italy. FAO International Consultant to the Ministry of Agriculture, Water and Forestry and the Central Bureau of Statistics of the Republic of Namibia. Responsible for the design and implementation of a five-year strategic plan for Namibia's agricultural management information system and the preparation of a five-year project document for an agricultural statistics improvement program in Namibia .

2007:

- Senior statistician and computer scientist of a team of 4 members of PRONAT (National Land Administration Program) in Panama City (Panama) to evaluate and make recommendations for the establishment of a monitoring and evaluation system based on the results (project financed by the World Bank and the IDB).). A monitoring system for territorial issues was designed and implemented.
- Mission to Dakar (Senegal) to assist the Central Statistical Office (ANSD) in the planning and implementation of its information system and IT plans to support all data collection activities. A security architecture and business, data, application and technological architectures have been developed. Organizationally, proposals have been made for the Central Bureau of Statistics to move to a results-based management matrix programmatic structure to better support the architectures. Recommendations were also made to improve the quality and timeliness of data collected through censuses/surveys and secondary sources, based on the data quality assessment framework recommended by the IMF. Recommendations were made to implement the SharePoint platform for data analysis and business intelligence reporting.
- Animation of a training workshop (two weeks) on the use of Microsoft Project for operational planning and programming of surveys/census and Public Programs and Projects in Dakar (Senegal).

2006:

- Mission to the ANSD (Central Statistical Office) of Senegal to help prepare the IT/IS plan for the period 2006-2008, and advice to implement a data quality assessment framework compliant with the GDPR of IMF.
- Co-organization and co-facilitation of a training workshop on Information Systems for Monitoring and Evaluation of Public Programs with applications to database design, held in Saly, Senegal.
- Senior IT Specialist and Support Statistician (1 assignment to finalize and document the survey technical report, including in-depth data quality assessment with publication of standard errors, non-sampling errors) and programs data processing, and prepare a prototype of management information. Myanmar Integrated Household Living Assessment System (LSMS) (UNDP funded project);
- Organization and facilitation of a training workshop on the design of databases for monitoring and evaluation systems, held in Quebec (CANADA);
- Mission to SEDESOL (Secretariat for Social Development) in Mexico City (Mexico) to implement and formulate final recommendations on the maintenance of the information system for a results-oriented monitoring and evaluation system (project financed by the Bank world).

2005:

- Missions to supervise institutional and technical diagnoses of public education organizations (Ministry of Education, Central Statistics Office, etc.) involved in the monitoring and evaluation of poverty and to propose an improved architecture and system (data entry, report generation) for education statistics in Swaziland (World Bank Trust Fund, IMF GDDS initiative). Detailed recommendations were made to improve the quality and timeliness of education statistical data following a prior assessment of the quality of information and data;
- Principal computer scientist and statistician in support (2 missions to complete the assessment of data quality and analysis of data processing) of the integrated assessment of household living conditions in Myanmar (project financed by UNDP);
- Organization and facilitation of a training workshop on the design of databases for monitoring and evaluation systems, held in Quebec (CANADA);
- Member of a team of 4 members from SEDESOL (Secretariat for Social Development) in Mexico City (Mexico) to evaluate and formulate recommendations for a results-based monitoring and evaluation system (project financed by the World Bank). The work led to the design and implementation of a results-oriented monitoring system that generates high-quality data and information (control charts) for all agricultural/rural programs of the Secretariat.

2004 :

- Senior computer scientist and statistician supporting the Myanmar Integrated Living Conditions Assessment (LSMS) (UNDP), in charge of sampling design and organization of the household assessment and processing system quality of the data and the general organization of the survey, the organization of field work, the training of trainers;
- Co-organized and co-facilitated a training workshop on MS Project and MS-ACCESS, held in Cotonou, Benin (DANIDA);
- Co-organized and co-facilitated a training workshop on Results-Based Management (RBM) and Medium-Term Expenditure Framework (MTEF) with applications in MS Project, held in Saly, Senegal (Government of the Netherlands).
- Senior statistician for 2 missions for a multi-component project aimed at implementing a monitoring, evaluation and analysis system for the Poverty Reduction Strategy (ERP) at the Ministry of Planning of Cape Verde (Praia), a Management Information System to produce high quality information. data was offered to policy makers; These missions were carried out in close cooperation/collaboration with a team from the World Bank.

2003:

- Senior computer scientist and statistician for an initial mission of a project to assess household living conditions in Myanmar (UNDP), preliminary sampling plan, organization of surveys, assessment of data quality and organization of processing and data analysis;
- Missions of supervising institutional and technical diagnoses of public organizations involved in the monitoring and evaluation of poverty and proposing an architecture (collection system, processing, storage, quality evaluation and dissemination of data), for the Observatory of Living Conditions in Senegal (UNDP);
- Medium Term Expenditure Framework (MTEF) with applications in MS Project, held in Quebec with 24 participants (DANIDA/Netherlands);

- Co-organized and co-facilitated the fifth high-level training workshop on PRS and MDG monitoring and evaluation systems, held in Quebec with 22 participants (CIDA/Netherlands/UNDP/World Bank);
- Co-organized and co-facilitated the fourth high-level training workshop on MTEF with applications in MS Project, held in Quebec with 25 participants (ACDI/DANIDA/Netherlands/World Bank).

2002:

- Lead Statistician of an initial mission for a multi-component project to design and implement a monitoring, evaluation and analysis system within the Ministry of Planning of Cambodia, including a survey on living conditions of households, an assessment of the quality of existing data and indicators, as well as progress towards achieving the MDGs; a good quality economic and social data management information system (UNDP) was designed;
- Mission to assess the quality of data and indicators used and the progress of the Poverty Monitoring and Analysis (PMA) project in Cambodia and help program the next phase (UNDP);
- Mission to the Senegalese Statistical Office (ANSD) to initiate a diagnostic study and support the Directorate of Statistics and Planning for the proposal of a Statistical Observatory of Poverty, Living Conditions and Sustainable Development in Senegal (UNDP) to produce regular and quality data. and information for researchers , policy analysts, statisticians and policy makers.
- Co-organization and co-facilitation of the third high-level training workshop on PMA systems, held in Quebec with 27 participants from 12 countries (UNDP/FAO/WHO/DANIDA/DFID).

Languages: (1 – excellent; 5 – basic)

language	While reading	Speech	In writing
English	1	1	1
French	1	1	1
Spanish Portuguese	1	1	2
Ouolof	1	1	1
Swahili (Tanzania, Kenya, Uganda)	1	2	3

Certificate

I, the undersigned, certify that to the best of my knowledge, this CV accurately describes me, my qualifications and my experience. I understand that any intentional inaccuracies described herein may result in my disqualification or termination, if I am involved.

Date: March 2024. Mbaye Kebe: