Table des matières

Contents

Editorial

Nous souhaitons la bienvenue aux lecteurs de ce deuxième volume du Journal et remercions tous ceux qui nous ont envoyé des commentaires sur le premier volume, qui fut lancé en novembre 2005 comme initiative conjointe du Groupe de la Banque, du Bureau des statistiques de l'Ouganda et de la Communauté statistique de l'Ouganda . Les deux derniers sont membres du comité de rédaction dont la composition représente un large spectre de la Communauté statistique africaine. Ce deuxième numéro contient des articles et d'autres éléments d'information présentant un intérêt pour la communauté statistique africaine ; le présent éditorial fait référence à trois d'entre eux.

En novembre 2005, la Banque africaine de développement a organisé une série de séminaires à Kampala, en Ouganda, en marge des événements nationaux marquant la Semaine africaine de la statistique, avec comme point d'orgue, la Journée africaine de la statistique, le 18 novembre. Le point culminant des festivités a été le lancement officiel du Journal statistique africain par le deuxième vice-Premier ministre ougandais. Les séminaires organisés par la BAD ont réuni des statisticiens africains pour discuter des questions de développement de la statistique en Afrique, y compris celles invitant à repenser la statistique pour le développement de la région. Un document a été présenté à cet effet, soulevant des questions importantes qui, à notre avis, devraient revêtir un grand intérêt pour tous ceux qui s'intéressent au développement de la statistique en Afrique. Ce document, après révision, est publié ici, sous la forme d'un article en anglais et en français.

En février 2006, un Cadre Stratégique Régional de Référence pour le Renforcement des Capacités Statistiques en Afrique a été approuvé par les Directeurs des Instituts Nationaux de la Statistique en Afrique (STATCOM – AFRIQUE) et le Forum pour le Développement de la Statistique en Afrique (FASDEV) réunis respectivement du 6 au 8 février et du 9 au 10 février 2006 à Addis-Abeba, Ethiopie. L'objectif général du Cadre est d'améliorer les résultats du développement et la bonne gouvernance, par le renforcement des systèmes statistiques nationaux en Afrique. Une version simplifiée de ce Cadre est insérée dans le Journal, en français et en anglais.

En avril 2006, toute la communauté statistique africaine et les partenaires au développement statistique en Afrique célébreront le 10ème anniversaire d'AFRISTAT (Observatoire Economique et Statistique d'Afrique Subsaharienne). AFRISTAT a été créé comme une institution supranationale de la statistique pour les pays francophones d'Afrique sub-saharienne, ayant comme mandat l'harmonisation des méthodes, des concepts et classifications, en vue de la production des statistiques officielles de ses Etats membres (actuellement, au nombre de 18) et le renforcement de leurs capacités statistiques. Un article sur AFRISTAT est publié dans le présent volume. Les pays membres et les partenaires au développement se félicitent du travail de qualité accompli par AFRISTAT en vue d'atteindre ses objectifs et répondre à leurs attentes. Le Comité de rédaction et les lecteurs du Journal se joignent à AFRISTAT pour célébrer cet anniversaire.

Nous sommes enfin heureux de vous informer qu'à partir de ce numéro, le journal sera disponible en CD Rom.

Dr. Charles Leyeka Lufumpa
Co-Président du Comité de rédaction
Chef de la division statistique
Groupe de la Banque africaine de développement
Tunis, Tunisie

Professeur Ben Kiregyera
Co-Président du Comité de rédaction
Président du Conseil d'administration
Bureau des statistiques de l'Ouganda
Kampala, Ouganda

Editorial

We welcome readers to Volume 2 of the Journal and thank all those readers who sent us comments on the maiden issue that was launched in November 2005 as a joint initiative of the Bank, the Uganda Bureau of Statistics and the Uganda Statistical Society. The latter two are members of the Editorial Board whose composition represents a broad spectrum of the African Statistical Community. This second volume presents articles and other materials of interest to the African statistical community. This editorial touches on three of the articles and materials.

In November 2005, the African Development Bank organized a series of seminars in Kampala, Uganda, alongside the national events celebrating Africa Statistics Week and ending on 18 November - Africa Statistics Day. At the climax of the celebrations, this Journal was officially launched at a ceremony officiated by the Second Deputy Prime Minister of Uganda. The ADB seminars brought together the African statistical community to discuss statistical development issues in Africa, including issues relating to rethinking statistics for development in the region. A paper was presented on such rethink. The paper raised profound issues that we thought would be of great interest to all those interested in statistical development in Africa. That paper was revised and is published in both English and French.

In February 2006, a Reference Regional Strategic Framework for Statistical Capacity Building in Africa was endorsed by the Directors of National Statistical Offices in Africa (STATCOM-AFRICA) and the Forum on African Statistical Development (FASDEV) held in Addis Ababa, Ethiopia on February 6-8 and February 9-10 2006, respectively. The Framework's overall objective is to improve development outcomes and good governance by strengthening National Statistical Systems in Africa. The light version of the Framework is published in both English and French.

In April 2006, the entire African statistical community and development partners in statistical development in Africa will celebrate the 10th anniversary of AFRISTAT (Observatoire Economique et Statistique d'Afrique Subsaharienne). AFRISTAT was established as a supra-national statistical institution for Francophone countries in Sub-Saharan Africa to prepare for its member countries (now 18) harmonized methods, concepts and classifications to be used in the production of official statistics and to help them strengthen their statistical capacities. We are publishing in this volume an article on AFRISTAT. Member countries and development partners alike appreciate that AFRISTAT has done well in meeting its objectives and their expectations. The Editorial Board and readers of the journal join AFRISTAT in celebrating the anniversary.

Finally we are happy to inform you that beginning with this issue, the journal will also be available on CD-Rom.

Dr. Charles Leyeka Lufumpa
Co-Chair
Editorial Board
Manager, Statistics Division
African Development Bank Group
Tunis, Tunisia

Professor Ben Kiregyera
Co-Chair
Editorial Board
Chairman, Board of Directors
Uganda Bureau of Statistics
Kampala, Uganda

La statistique africaine comme langage de développement : une vision réaliste

Michel Mouyelo-Katoula[1]

Résumé

La gestion du développement axée sur les résultats nécessite dorénavant que le travail du statisticien africain commence par la compréhension a priori et une observation méticuleuse des réalités économiques et sociales africaines. Il s'agit, dans une approche multidisciplinaire, de dégager les régularités de ces réalités, leurs constantes et leurs dynamiques mesurables, avant de leur appliquer les mathématiques et autres règles établies au plan international. Il convient pour cela de promouvoir la statistique en tant que langage, outil de communication facilitant l'émergence d'une culture statistique africaine. Le présent article est une invitation à la recherche statistique dans ce sens. Il propose dix pistes de réflexion allant de l'équation producteur-utilisateur à l'élaboration de cadres conceptuels et méthodologiques de mesure des impacts des projets et programmes de développement.

Mots-clés

Statistique, culture, langage, développement, impact, gestion axée sur les résultats.

Summary

The result-based management framework requires African statisticians to start their work with prior understanding and meticulous observation of African economic and social realities. They are expected, through a multidisciplinary approach, to identify the permanent features of these realities, their measurable characteristics and dynamics, to which, they will, thereafter, apply relevant internationally established rules. This entails promoting statistics as a language, a communication tool aimed at facilitating the emergence of an African statistical culture. The purpose of this article is to call for statistical research on this issue, especially on aspects such as the producer-user dialogue as well as conceptual and methodological frameworks necessary to measuring for outcomes of development projects and programs.

Key words

Statistics, culture, language, development, outcome, result-based management.

1: Statisticien-économiste, Coordonateur régional du PCI Afrique, Banque Africaine de Développement, BP 323 Tunis Belvedere 1002 - Tunis, Tunisie. m. mouyelo-katoula@afdb.org

1. Introduction

Les faiblesses et points forts de la statistique africaine ont fait l'objet d'analyses récentes : en 2000-2001, dans le cadre de l'évaluation du Plan d'Action d'Addis-Abéba, puis en 2005, dans le cadre de la préparation du Cadre Stratégique Regional de Référence pour le renforcement des capacites statistique en Afrique.

En général, les systèmes nationaux de statistique africains n'accordent pas la priorité requise à la recherche et au développement méthodologique. Ils ont tendance à prendre des raccourcis méthodologiques et des approximations faute d'avoir une véritable compréhension a priori des phénomènes à observer, dont certains renvoient aux nouveaux défis de développement. La difficulté d'adaptation à ces défis est évidente presque dans tous les pays de la région : les problèmes de pauvreté, de genre, et du VIH/SIDA notamment resteront à penser dans une logique de maîtrise des caractéristiques sociales et économiques de nos pays.

Les progrès réalisés en matière de développement des systèmes statistiques sont cependant nombreux dans les différents domaines pour lesquels des cadres conceptuels et méthodologiques édictés au plan international existent et sont inclus dans les protocoles de formation des statisticiens à tous les niveaux.

Ce sont ces cadres de référence qui servent de norme dans les pays où les planificateurs et les décideurs ont, avec des succès variés, inscrit l'information statistique dans l'analyse et la gestion macroéconomique et la prise de décision axée sur les résultats.

Après plusieurs décennies de développement de systèmes statistiques en Afrique, les résultats enregistrés restent médiocres. En terme de mesure axée sur les résultats, il est fondé de souligner que l'impact de ces systèmes reste insignifiant. La statistique africaine n'est pas encore, loin s'en faut, un instrument généralisé et éprouvé de mesure du développement axé sur les résultats : elle ne contribue pas encore, de façon systématique, à l'amélioration des conditions de vie des populations, individuellement ou collectivement.

Il est proposé dans ce bref document d'examiner quelques pistes de réflexion sur la rationalisation, la systématisation et la pérennisation de cette contribution, en revisitant le plaidoyer auprès des décideurs politiques, en allant au-delà de l'équation producteur-utilisateur, en proposant la lecture systémique des réalités sociales, en mettant en place un dispositif de veille statistique, en promouvant une culture statistique, en développant des cadres conceptuel et méthodologique de l'analyse de genre et de mesure des projets et programmes de développement, en organisant efficacement la contribution de l'Afrique à la révision des normes et standards internationaux, en donnant plus d'ambition à la formation des statisticiens africains et en créant une société africaine de promotion de la connaissance du développement.

2. Propositions d'axes de réflexion

2.1 Plaidoyer auprès des décideurs

Dans la plupart des cas, les statisticiens s'accordent à proclamer que la gestion efficace des affaires publiques nécessite la sensibilisation des responsables politiques et des décideurs sur l'importance stratégique que revêtent les données et les informations statistiques dans le processus de gestion et de formulation de politiques de développement.

C'est là une déclamation qui ne résout fondamentalement rien, mais révèle un malaise plus profond qu'il n'y paraît :

- Le statisticien semble ignorer que le responsable politique est un membre et l'émanation de sa société. Il a la culture de sa société : culture d'information, d'analyse et de prise de décision.
- Les opérations ponctuelles de sensibilisation des responsables politiques sont d'autant plus inefficaces que les équipes et cadres politiques sont labiles : il faut sans cesse recommencer, avec des fortunes diverses.
- Tous les pouvoirs politiques ont leurs propres systèmes d'information, destinés à garantir la pérennité de ces pouvoirs. Le statisticien gagnerait à connaître ces systèmes pour contribuer aux aspects collectifs, objectifs et mesurables. Il s'agit de s'intéresser à leurs systèmes, pour apprendre leur langage, leurs préoccupations, répondre à leurs besoins primaires et leur prouver les avantages comparatifs d'un système d'information étendu aux cadres de l'analyse statistique.
- La politique, dans son approche électoraliste, est une démarche de proximité, un rapport à l'homme et à sa collectivité immédiate. Dans son approche policière, elle reste centrée sur l'homme et sur sa collectivité immédiate. Or il semble que ce terrain n'a pas encore été investi par le statisticien africain. Comment peut-il dès lors contribuer aux systèmes d'information primaires des pouvoirs politiques ?
- Les paradigmes de pauvreté sont au cœur des politiques de développement. Le statisticien y contribue en apportant des données dans le cadre des Objectifs du Millénaire pour le Développement (OMD) et des Documents Stratégiques de Réduction de la Pauvreté (DSRP). Or, il n'a pas encore réfléchi sur l'homme et les groupes humains en tant qu'acteurs et objets de la pauvreté. Quelle est dès lors la pertinence sociale et politique, voire économique, des statistiques qu'il élabore ?

2.2 Au-delà de l'équation utilisateur-producteur

La pierre d'angle de l'efficacité statistique reste à ce jour le dialogue entre utilisateurs et producteurs. L'efficacité maximale serait ainsi atteinte si la production totale de statistiques (P)

était égale, en quantité, qualité et à temps, à l'ensemble des besoins (U) exprimés par les utilisateurs dont les plus importants sont les pouvoirs publics.

La démarche ainsi suggérée est une véritable pétition de principe. En effet, d'une part, il est généralement dénoncé que les pouvoirs publics n'ont pas une conscience et une connaissance élevée de la chose statistique, d'autre part, on entend caler une partie essentielle de la production statistique sur leurs besoins. S'il s'agit de besoins exprimés par eux, ils risquent d'être incomplets. Si ce sont des besoins exprimés, pour leur compte par d'autres entités, les pouvoirs publics ne s'y reconnaitront pas nécessairement. Au lieu d'une équation, P = U, la relation entre P et U serait un décalage.

La remarque vaut pour bien d'autres utilisateurs nationaux de statistiques.

Le décalage (P,U) risque de perdurer, bien longtemps.

Au lieu d'un ajustement de l'offre et à la demande de statistique, nous proposons que soient mis en place des protocoles de lecture statistique des réalités sociales, en ayant à l'esprit que les aspects qualitatifs sont l'essence de l'analyse quantitative.

2.3 Lecture systémique des réalités sociales

2.3.1 Les 12 étapes de l'approche systémique proposée

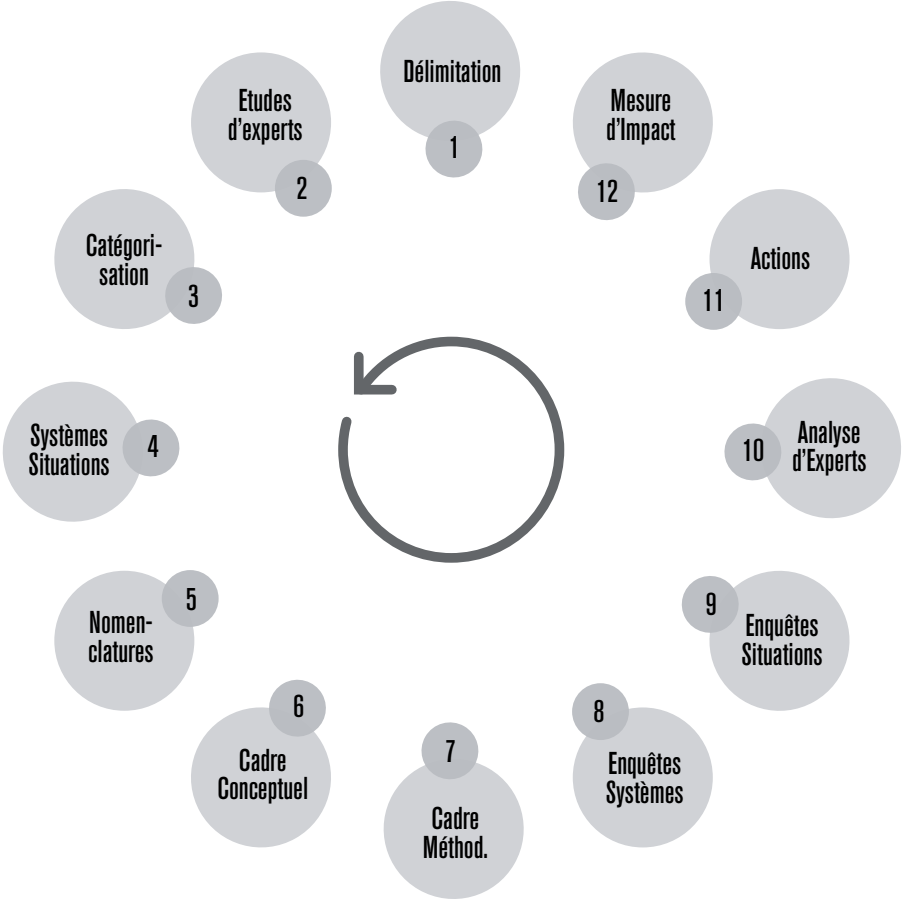
Les réalités sociales que la statistique entend mesurer concernent des êtres organisés en systèmes vivants auto-organisés. Ils peuvent être étudiés comme des systèmes cybernétiques, c'est-à-dire des ensembles d'éléments en interaction, qui échangent ce faisant de l'information. L'information est le lien fondamental de tout système vivant.

Le défi à relever consisterait à traduire cette information naturelle en statistiques, selon une approche systémique dans laquelle la statistique africaine serait une véritable représentation numérique de la réalité socio-économique. Le graphique 1 présente une approche systemique en 12 etapes et couvre les points suivants:

1. délimitation phénoménologique, spatio-temporelle ;
2. études d'experts (sociologues, géographes, médecins, nutritionnistes, économistes, statisticiens, etc.) ;
3. catégorisation (partitions et catégorisation floue) : segmentation, typologie, taxinomie ;
4. identification de systèmes et situations ;
5. établissement de nomenclatures ;

- Individus et groupes sociaux ;
- Objectifs, principes, croyances, etc. ;
- Lien social, relations;
- Partitions spatiales;
- Segments temporels;
- Fonctions, roles sociaux;
- Opérations;
- Moyens d'action (fongibles, semi-durables, durables, etc.) ;
- Rapports à l'environnement;
- Notion de résultats, principes de satisfaction.

Graphique 1: Une approche systémique en 12 étapes



6. définition d'un cadre conceptuel ;
7. développement d'un cadre méthodologique ;
8. enquêtes statistiques sur les systèmes ;
9. enquêtes statistiques sur les situations, flux et résultats;
10. analyse et recommandations d'experts (sociologues, géographes, médecins, nutritionnistes, économistes, statisticiens, etc.) ;
11. recensement des actions mises en œuvre sur base des analyses et recommandations ;
12. étude de l'impact de ces actions sur l'espace et les systèmes considérés.

Les domaines d'application de l'approche systémique sont nombreux et variés et incluent les points suivants:

- Compréhension et analyse de la pauvreté
- Problématique de genre
- Secteur informel
- Mesure des résultats des projets et programmes
- Economies locales

En ce qui concerne le secteur informel, l'on veillera à ne pas opposer systèmes traditionnels et systèmes modernes, car c'est la tradition en tant qu'identité d'une communauté qu'il convient d'observer pour y apprécier l'impact des projets, programmes et autres actions.

2.3.2 Statistiques de systèmes et d'actions

Dans la démarche systémique, une distinction sera faite entre les enquêtes systémiques (visant à décrire les structures sociales, politiques, économiques, de survie, religieuses, et autres systèmes de condition de vie) et les enquêtes de situations, d'actions, de relations et de flux (destinées à apprécier les relations actives entre les éléments humains, ou non, ainsi qu'entre ces éléments et les systèmes).

La périodicité des enquêtes systémiques (3, 5, 7 ans, etc.) sera déterminée en fonction des hypothèses de modification significative de ces systèmes selon les actions des éléments les composant.

Les enquêtes d'actions seront organisées selon une périodicité à définir dans le cadre d'un système de veille statistique.

2.4 Veille statistique

2.4.1 Les stratégies statistiques nationales comme tableau de bord

La gestion de toutes les activités statistiques devrait se faire dans le cadre exclusif des SNDS (Stratégies nationales de développement statistique). Celles-ci devraient faire l'objet d'une revue annuelle, sous la forme d'une auto-évaluation. Un questionnaire annuel devrait être auto-administré par les acteurs du système statistique national, en vue de décider des ajustements éventuels à apporter aux activités restantes du SNDS. Parmi les questions figureront : les changements politiques, les chocs sociaux, les retards dans l'exécution des activités, les nouvelles contraintes, les opportunités nouvelles, les défis émergents, etc. Ce questionnaire servirait de tableau de bord d'une veille statistique.

La veille statistique suggère que le SSN s'organise sous la forme d'un cadre d'enregistrement permanent des faits et décisions politiques, économiques et sociales dans un esprit de journalisme statistique.

Il s'agirait ainsi de faire du SNDS un système permanent glissant de gestion du développement statistique.

2.4.2 Prévision à court et moyen terme

Le journalisme statistique comportera l'enregistrement des faits à portée statistique (nouvelles orientations politiques, signatures d'accords et conventions internationales, etc.) et alimentera la prévision à court et moyen terme des impacts de ces faits sur les conditions de vie des populations (à travers les systèmes, situations, catégories, nomenclatures, etc.), l'environnement et l'économie du pays. Cette prévision inclura aussi des dispositions sur la prise en compte de ces impacts dans la mise à jour des SNDS.

2.5 Culture statistique

Le langage est le premier support naturel d'une culture de groupe. Le développement d'une culture d'observation, de mesure, d'analyse et de projection numérique dans l'avenir exige que les membres du groupe, en tant que système vivant auto-organisé, parlent un même langage, et échangent entre eux des informations selon ce langage. Parmi les axes qui peuvent être explorés pour ce faire, l'on pourrait proposer :

- L'inclusion de la statistique à tous les niveaux des cycles d'enseignement (maternelle, primaire, secondaire, universitaire, professionnel), sous toutes les formes possibles :
  - Cours magistraux ;

  - o Travaux pratiques ;
  - o Conceptions d'ouvrages pédagogiques de géographie, histoire, mathématique, éducation civique, économie, sociologie, psychologie, chimie, physique, biologie, biochimie, etc. dans lesquels tous les exemples portant sur des ensembles nombreux seraient présentés sous la forme de tableaux statistiques et de graphiques éloquents. Les services de production du système statistique national seront encouragés à négocier avec les services compétents de l'éducation nationale les modalités de développement d'un vaste programme d'inscription de la statistique dans le langage, les cours, les exercices, les travaux et les recherches de l'école.
- Des conventions avec tous les journaux pour l'insertion, selon un calendrier périodique (hebdomadaire, mensuel, trimestriel, etc.), d'articles conjointement écrits par des journalistes, des experts de divers domaines socio-économiques et des statisticiens sur la mesure de faits sociaux et économiques dont on mettra en relief l'impact avéré ou possible sur les centres d'intérêt des populations-cibles de ces articles. Toutes les couches de la population devront être visées par des articles spécifiques. Un réseau (informel) de rédaction, de sélection et de validation d'articles sera mis en place à l'initiative de l'Institut National de Statistique, dont le noyau comprendra une équipe multidisciplinaire dûment constituée.
- L'organisation d'émissions-jeux télévisées et radiodiffusées dont la matière sera puisée dans les articles sur la mesure de faits sociaux et économiques rapportés dans les principaux journaux écrits ou dans des publications statistiques destinées au grand public.
- Développement d'autres supports d'information des populations sur leurs conditions de vie.

2.5.1 Rationaliser et pérenniser la collecte d'informations

La connaissance des réseaux sociaux de distribution et d'échange d'information et des structures économiques (productives, de solidarité, de consommation, etc.) politiques, éducatives, de santé, religieuses, hiérarchiques est de nature à faciliter et à réduire les coûts de collecte et de diffusion de l'information.

2.5.2 Suivi effectif des ISBL au service des ménages (ISBLSM)

Les institutions sans but lucratif au service des ménages (ISBLSM) sont définies dans le SCN-93 comme « des institutions qui fournissent aux ménages des biens ou des services, gratuitement ou à des prix qui ne sont pas économiquement significatifs. ». Cette notion d'institutions interprétée dans un sens restrictif par de nombreux comptables nationaux africains conduit à sous-estimer considérablement la contribution de ce secteur au produit inté-

rieur brut. La vie collective dans les villes et villages d'Afrique s'organise principalement dans le cadre d'associations et groupements non officiellement enregistrés qu'il conviendrait de recenser dans un large mouvement de recherche sociale.

2.6 Développer les cadres conceptuel et méthodologique de l'analyse de genre

L'analyse de genre dans les statistiques officielles est généralement menée dans l'optique de la désagrégation des indicateurs économiques et sociaux, y compris ceux dont la définition et les modalités de calcul ne permettent guère une décomposition entre hommes et femmes. Il est essentiel de mettre plutôt en place une approche intégrée, allant de la compréhension des dynamiques de genre à la collecte des données correspondantes et aux agrégations économiques et sociales souhaitées sous forme d'indicateurs. Cela permettra de minimiser voire d'éliminer les biais (conceptuels, méthodologiques, statistiques, analytiques) qui sont souvent dénoncés dans l'analyse des statistiques désagrégées par genre.

Cette approche comporterait 4 modalités principales :

- Contextuels
- Délimitation de l'espace et du temps
- Infrastructure
- Environnement
- Climat
- Écologie
- Ressources naturelles
- Institutionnels et politiques
- Orientations politiques
- Instances de décision
- Type de participation/marge de décision individuelle et collective
- Socioculturels
- Conception du monde / Cosmogonie
- Croyances, normes, valeurs
- Fondements sociologiques des statuts
- Relations sociales
- Economiques
- Modalités de définition et de prise en compte des besoins collectifs et individuels ;
- Modes de satisfaction des besoins
- Modes de production et ressources technologiques.
- Règles de distribution et d'échanges (solidarité, réciprocité)
- Modes de consommation

2.7 Concevoir des cadres conceptuels et méthodologiques des projets et programmes

Les politiques de développement économique et social sont généralement mises en œuvre à travers des projets et programmes sectoriels ou spatialement circonscrits dont l'impact en termes de développement doit être mesuré et enregistré statistiquement. La Banque Africaine de Développement a entrepris de développer un programme de mesure de cet impact en ce qui concerne ses interventions dans la région.

L'approche statistique retenue à cet effet consiste à concevoir des cadres conceptuel et méthodologique pour chaque projet ou programme, considérant l'espace-temps d'un projet ou programme comme une économie et un espace social local pour lesquels une étude systémique sera menée selon la démarche présentée plus haut.

Il est recommandé de systématiser cette approche en l'appliquant à tous les projets et programmes quels qu'en soient le financement. Dans de nombreux cas, la mise en œuvre de l'approche s'appuiera sur des systèmes de comptes satellites existants ou nécessitera l'élaboration de tels systèmes.

2.8 Organiser la contribution à la révision des normes et standards internationaux.

Les pays africains ne contribuent pas encore à la définition ni à la révision des systèmes prescrits par les institutions internationales, même si elles participent à certaines des réunions techniques. Les raisons en sont nombreuses.

Il est proposé d'organiser des groupes de travail thématique permanents dont la responsabilité serait confiée à des organisations régionales et sous-régionales dont les programmes de travail prévoient ou peuvent prévoir l'organisation de séminaires sous-régionaux et régionaux et la participation à des réunions internationales. Les discussions techniques des groupes de travail seront menées sur Internet, et à l'occasion des séminaires sous-régionaux et régionaux.

2.9 Renforcer la formation des statisticiens africains

Pour résoudre le problème de carence en statisticiens, il est proposé d'accroître considérablement le volume de statisticiens formés chaque année. Il s'agit de former autant de statisticiens que possible, de manière à infiltrer tous les secteurs d'emploi et renforcer ainsi le développement d'une culture statistique.

De plus, nous proposons la création d'une conférence des écoles de formation statistique et des universités dont l´objectif sera la revue des programmes de formation et l'évaluation des progrès enregistrés dans la formation des statisticiens en vue de la rendre plus efficace pour repondre à la demande des systèmes nationaux de statistique.

Enfin, il conviendrait de revoir les programmes de formation des statisticiens pour les articuler autour des défis de développement, chaque cours devant s'inscrire dans un cadre intégré de référence. Par exemple, tous les cours de statistiques économiques doivent être conçus et donnés dans l'objectif de contribuer à l'élaboration des comptes nationaux, de même ces cours, et ceux de statistiques sociales auront comme objectif l'élaboration des cadres de mesure du développement.

Ces cours devraient être structurées autour de : l'observation et la compréhension des faits et systèmes de conditions de vie et leur traduction en systèmes d'information.

2.10 Société africaine de promotion de la connaissance du développement

La multi-dimensionnalité, la complexité et l'immensité du travail de mesure du développement suggère qu'une société statistique africaine soit créée, en tant que forum panafricain de tous les spécialistes (économistes, sociologues, statisticiens, médecins, etc.) intéressés par les questions de mesure du développement économique et social des groupes, peuples et nations d'Afrique.

La société statistique africaine se donnerait comme principale mission, de : (i) recenser et rassembler toutes les études, recherches, enquêtes permettant de comprendre les processus de développement groupal, notamment sociaux et économiques, et d'en dégager des constantes mesurables ; (ii) promouvoir la recherche dans ce domaine ; (iii) développer des méthodes statistiques de mesure de l'impact des programmes et projets sur le bien-être effectif des populations ; (iv) contribuer aux débats internationaux sur des questions équivalentes et sur le développement de normes et recommandations internationales.

3. Conclusion

Les propositions faites ici visent à replacer l'homme au centre de la problématique de développement statistique. Elles sont articulées autour de trois axes essentiels : le plaidoyer statistique, la promotion d'une culture statistique visant les populations à tous les niveaux et la capitalisation de toutes les intelligences portées sur la problématique de la mesure du développement.

Rethinking Statistics for National Development in Africa

Michel Mouyelo-Katoula[1]

Summary

The result-based management framework requires African statisticians to start their work with prior understanding and meticulous observation of African economic and social realities. They are expected, through a multidisciplinary approach, to identify the permanent features of these realities, their measurable characteristics and dynamics, to which, they will, thereafter, apply relevant internationally established rules. This entails promoting statistics as a language, a communication tool aimed at facilitating the emergence of an African statistical culture. The purpose of this article is to call for statistical research on this issue, especially on aspects such as the producer-user dialogue as well as conceptual and methodological frameworks necessary for measuring outcomes of development projects and programs.

Key words

Statistics, culture, language, development, outcome, result-based management.

Résumé

La gestion du développement axée sur les résultats nécessite dorénavant que le travail du statisticien africain commence par la compréhension a priori et une observation méticuleuse des réalités économiques et sociales africaines. Il s'agit, dans une approche multidisciplinaire, de dégager les régularités de ces réalités, leurs constantes et leurs dynamiques mesurables, avant de leur appliquer les mathématiques et autres règles établies au plan international. Il convient pour cela de promouvoir la statistique en tant que langage, outil de communication facilitant l'émergence d'une culture statistique africaine. Le présent article est une invitation à la recherche statistique dans ce sens. Il propose dix pistes de réflexion allant de l'équation producteur-utilisateur à l'élaboration de cadres conceptuels et méthodologiques de mesure des impacts des projets et programmes de développement.

Mots-clés

statistique, culture, langage, développement, impact, gestion axée sur les résultats

1: Economist-Statistician, ICP Africa Regional Coordinator. African Development Bank Bp 323 Tunis Belvédère 1002 - Tunisia, m.mouyelo-katoula@afdb.org

1. Introduction

The strengths and weaknesses of African statistics have been the subject of recent studies: in 2000-2001, in the context of the evaluation of the Addis-Ababa Plan of Action, then in 2005, in preparing the Reference Regional Strategic Framework for Statistical Capacity Building in Africa.

Generally speaking, African national statistical systems do not give the required priority to research and methodological development. They tend to resort to methodology shortcuts and proxies, for lack of a true, a priori understanding of the phenomena they are expected to observe, some of which stem from new development challenges. The difficulty in adapting to these challenges is apparent in almost all the countries of the region: issues relating for example to poverty, gender inequality and HIV/AIDS require to be addressed in terms of the underlying social and economic circumstances prevailing in the countries.

There have nevertheless been many examples of progress in different aspects of statistical systems development where internationally established conceptual and methodological frameworks exist and have been integrated into statistical training curricula at all levels.

These reference frameworks set the standardal in countries where planners and decision–makers have, with varying degrees of success, incorporated statistical data in analysis and macroeconomic management and results-based decision making.

After several decades of development of statistical systems in Africa, the overall results remain mediocre. In terms of measuring development outcomes, one has good grounds for stating that the contribution of these systems remains so far insignificant. African statistics are not yet, in fact are far from becoming, a broadly applied and well-proven instrument of measure of development results: they do not yet systematically contribute to improving the populations' living conditions, individually or collectively.

This brief document proposes to pursue certain lines of thought on the rationalization, systematization and ensured sustainability of this contribution, by: (i) revisiting the advocacy directed at political decision makers; (ii) moving beyond the producer-user equation; (iii) proposing systemic interpretation of social and economic realities; (iv) setting up a statistical observatory mechanism; (v) promoting a statistical culture; (vi) formulating conceptual and methodological frameworks for gender analysis; (vii) formulating equivalent frameworks for measuring development outcomes of projects and programmes; (viii) efficiently organizing Africa's contribution to the formulation and revision of international statistical norms and standards; (ix) incorporating greater ambition into the training of African statisticians; and (x) establishing an African society to promote development knowledge.

2. Proposed Areas of Thought

2.1 Advocacy Directed at Decision-makers

Most statisticians readily proclaim that efficient management of public affairs requires the sensitization of political leaders and decision-makers on the strategic importance of statistical data and information to the process of formulating and managing development policies.

This truism basically solves no problems, but rather reveals an even deeper malaise than perceived:

- African statisticians appear to be unaware that political leaders are members and emanations of their society, therefore they embody the culture of their society as regards information, analysis and decision-making,
- The ad hoc efforts at sensitization of political leaders are all the more ineffective because of the fickleness of political contexts and groups: this means constantly starting all over again, with varying degrees of success.
- All political authorities have their own information systems, intended to perpetuate their power. It is to the statistician's advantage to know these systems so as to contribute to the streamlining of the collective, objective and measurable aspects of these systems. This requires getting more familiar with such systems, listening to their concerns, meeting their primary needs and proving to them the comparative advantages of an information system that would take advantage of statistical analysis frameworks.
- Politics, with its election-oriented emphasis, is a hierarchical process, linking the individual and his/her immediate community. In its policing facets, it remains focused on the people and their immediate communities. However, it appears that African statisticians have not yet explored this terrain. How then can they contribute to the primary information systems of the political authorities?
- Poverty paradigms are at the heart of development policy. Statisticians contribute to them by providing data relating to the Millennium Development Goals (MDGs) and Poverty Reduction Strategy Papers (PRSPs), whereas they have not yet given thought to the people and human groups as actors and objects of poverty. What is the social and political or even economic relevance of the statistics they prepare?

2.2 Beyond the User-Producer Equation

To date, the overall efficacy of statistical production, is measured in terms of the dialogue between users and producers. Maximum effectiveness would therefore be attained at the point where total statistics production (P) is equal in quantity, quality and time to the needs (U) expressed by users (the public authorities foremost).

The approach implied clearly has limitations. Indeed, on the one hand, the public authorities' poor or lack of interest and knowledge of statistics is generally deplorable; and, on the other hand, statisticians intend to base the bulk of statistical production on their needs. Such needs as expressed by public authorities might be incomplete. If the needs are expressed on their behalf by other entities, the public authorities might not necessarily identify with them. This statement applies for the other categories of statistical users.

Instead of a P = U equation, we might have a double inequation where U is less than the total needs (N) which should be, ideally, expressed by the entire economy and society as well as the international community, and P covers a portion of U and another portion of (N-U) but not the entire N.

On the one hand, the N-P gap remains to be identified and filled; on the other hand, the N-U gap shows the extent of statistical advocacy to be carried out.

While striving to adjust the supply (P) to the statistical demand (U), we propose that necessary mechanisms be put in place for a statistical reading of social realities, bearing in mind that life, as a complex fabric of qualitative aspects, justifies and underlies quantitative analysis.

2.3 Systemic Reading of Social and Economic Realities

2.3.1 Proposal for a 12-stage systemic approach

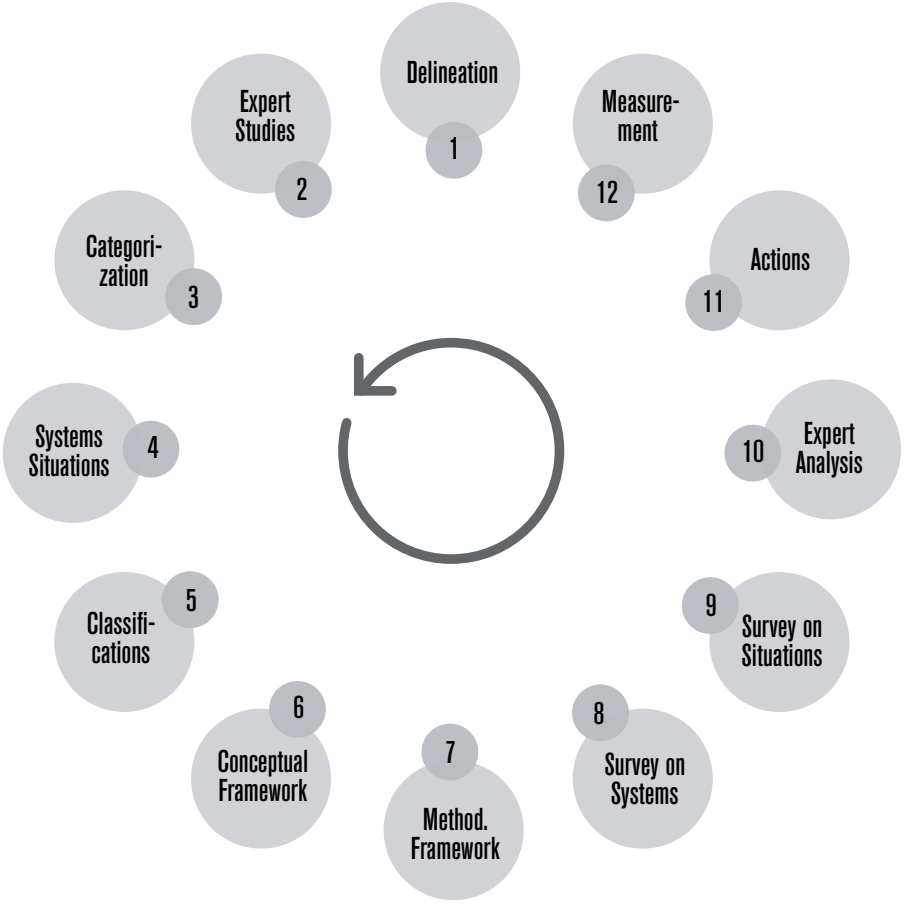
Social and economic realities that statistics are intended to measure concern human beings and their self-organized systems. They can be studied as cybernetic systems; that is series of interacting elements that engage in exchanges, thus producing information as the fundamental link characterizing all living systems.

The challenge posed would consist in translating this natural information into statistics, using a systemic approach whereby African statistics would be a genuine digital representation of socio-economic reality. Diagram 1 presents a proposed 12-stage cycle that covrs the following:

1. Phenomenological and time/space delineation;
2. Experts' studies (sociologists, geographers, physicians, nutritionists, economists, statisticians, etc.);
3. Categorization (partitions and fuzzy categorization): segmentation, typology, taxonomy ;
4. Identification of systems and situations ;

5. Development of classifications;
   - o Individuals and social groups;
   - o Objectives, principles, beliefs, etc ;
   - o Social links, relationships;
   - o Spatial partition;
   - o Time segmentation;

Diagram 1: A 12-stage systemic cyde



   - o Functions, social roles
   - o Operations;
   - o Means of action (fungible, semi-durable, durable, etc.);
   - o Relation to environment;
   - o Notion of results, principles of satisfaction.

6. Devising of a conceptual framework;
7. Development of a methodological framework;
8. Statistical surveys on systems;
9. Statistical surveys on situations, actions, flows and results;
10. Experts' analysis and recommendations (sociologists, geographers, physicians, nutritionists, economists, statisticians, etc.);
11. Inventory of actions implemented as a follow up to analyses and recommendations;
12. Assessment of impact of these actions on the space and systems considered.

There are numerous and varied areas of application of the systemic approach including:

- Understanding and analysis of poverty
- Gender inequality
- Economic behaviour
- Measurement of projects and programme outcomes
- Local economies
- Informal sector

Concerning the informal sector, both traditional and modern systems prevailing in areas where the informal sector exist, should be studied as cross-fertilizing systems. Here, tradition will be considered as the identity of a particular community that contributes, one way or the other, to the impact of projects, programmes and other development activities.

2.3.2 Statistics of systems and measures

With the systemic approach, a distinction will be drawn between systemic surveys (aimed at describing social, political, economic, survival, religious structures and other systems of living conditions) and surveys on situations, actions, relationships and flows (aimed at assessing the active relations between elements, human or otherwise, as well as between these elements and the ambient systems).

The periodicity of systemic surveys (3, 5, 7 years, etc.) will depend on the assumptions about the pace at which significant transformations occur in these systems, as the results of actions performed by the elements making them up.

Surveys on situations and actions will be scheduled within the framework of a statistical monitoring system.

2.4 Statistical Monitoring System

2.4.1 National statisticel strategies as scoreboards

Management of all statistical activities should be exclusively within the framework of the NSDS (National Strategies for Statistical Development). These should be reviewed annually by the stakeholders of the National Statistical Systems (NSS) themselves. An annual questionnaire should be self-administered by the NSS, with a view to deciding any adjustment required to the remaining NSDS activities. The aspects to be addressed in the self-evaluation questionnaire will include: political changes, social shocks, delays in the implementation of NSDS activities, new constraints, new opportunities, emerging challenges, etc. This questionnaire would serve as a score card for statistical monitoring.

Statistical monitoring implies that the NSS organizes itself as a permanent framework to record political, economic and social decisions and developments, in a spirit of statistical journalism.

The aim would be to make the NSDS a permanent rolling system for the management of statistical development.

2.4.2 Short and medium-term outlook

Statistical journalism will involve recording economic and social developments with statistical facets (new political orientations, signing of international agreements and conventions, etc.) and will inform short and medium-term projections of likely impacts of these events on the populations' living conditions (through the systems, situations, categories, classifications, etc.), and on the environment and the economy of the country. Such projection will also include provision for taking these impacts into account in updating NSDS.

2.5 Statistical Culture

Language is the first natural medium of any group culture. The development of a culture of observation, measurement and analysis and numerical projection requires that the members of the group – as a self-organized living system - speak the same language and exchange information using that language. This can for example be along the following lines:

- Inclusion of statistics at all levels of the education system (nursery, primary, secondary, university, vocational) in every form possible:
  - o Formal courses/lectures;
  - o Practicals;
  - o Formulation of teaching manuals for geography, history, mathematics, civics, economics, sociology, psychology, chemistry, physics, biology, biochemistry, etc, containing numeric examples presented in the form of statistical tables and graphs. National statistical production units would be encouraged to negotiate with the appropriate agencies of the national education systems on the modalities for developing a vast programme aimed at incorporating statistics in the language, the classes, exercises, the work and research of schools.
- Agreements with all newspapers for the insertion, at certain intervals (weekly, monthly, quarterly, etc.) of articles written jointly by journalists, experts in various socio-economic fields and statisticians on the measurement of social and economic facts and highlighting the related actual or possible impact on the centers of interest of the target populations. All population layers will be targeted through specific articles. A network (informal) for drafting, selecting and validating such articles will be put in place on the initiative of the National Statistics Office, and around a duly constituted multidisciplinary team.
- Organization of televised and radio game shows, using material taken from articles on the measurement of social and economic aspects reported in the leading publications or in statistical publications available to the public at large.
- Development of other media for informing the public concerning their living conditions.

2.5.1 Rationalize and ensure continuity of information gathering

Familiarity with the social networks for information distribution and exchange and the economic set-up (productive, relating to solidarity, consumption, etc.), as well as political, education, health-related, religious and hierarchical will facilitate and reduce the cost of information gathering and dissemination. In this respect the role of non-profit institutions such as NGOs, community organizations, etc., will be critical, given their knowledge of people's conditions.

2.5.2 Effective monitoring of non-profit institutions

The non-profit institutions serving households (NPISH) are defined in the 1993 U.N. System of National Accounts (SNA-93) as institutions that provide households with goods and services, free of charge or at economically insignificant costs. This notion of institutions that many African national accountants interpret in the limited sense leads to considerable underestimation of this sector's contribution to the Gross Domestic Product. Community life in

African cities and villages is primarily organized around associations and groups that are not officially identified and which should be registered as part of a broad social research effort.

2.6 Developing Conceptual and Methodological Frameworks for Gender Analysis

Gender analysis through official statistics generally involves disaggregating economic and social indicators, including those whose definition and calculation modalities hardly allow for gender breakdown. It is essential to put in place an integrated approach, ranging from the understanding of gender dynamics to the gathering of corresponding data as well as the desired economic and social aggregations in the form of indicators. This will make it possible to minimize or even eliminate the biases (conceptual, methodological, statistical, and analytical) that are so often denounced in the current analysis of gender–disaggregated statistics.

Such an approach would hinge on 4 main modalities:

- Contextual
  - o Delimitation of space and time
  - o Description of infrastructure
  - o Description of environment
  - o Identification of climate characteristics
  - o Inventory of natural resources
- Institutional and political
  - o Analysis of political systems
  - o Identification of decision-making bodies
  - o Highlighting types of participation/room for individual and collective decision
- Socio-cultural
  - o Understanding of social perception of the world/ cosmogony
  - o Analysis of beliefs, standards and values

o Identification of the sociological bases of status
  - o Study of social relations
- Economic
  - o Survey on the terms and conditions for taking account of collective and individual needs
  - o Inventory of the means of meeting economic needs
  - o Survey on the means of production and technological resources.
  - o Analysis of the rules of distribution and exchanges (solidarity, reciprocity)
  - o Survey on the modes of consumption

2.7 Formulation of Conceptual and Methodological Frameworks for Projects and Programmes

Economic and social development policies are generally implemented through sectoral or spatially limited projects and programmes whose development impact has to be statistically measured and recorded. The African Development Bank has undertaken to measure this impact as far as its development interventions in the region are concerned.

The statistical approach that is being contemplated consists in designing conceptual and methodological frameworks for each project or programme, considering the time/space of a project or programme as an economy and a local social space for which a systemic study will be conducted in accordance with the process presented above.

It is recommended that this approach be made systematic and applied to all projects and programmes, whatever their source of finance. In many cases, the approach will be implemented based on existing satellite accounts or will require the development of such systems.

2.8 Organizing Africa's Contribution to the Formulation and Revision of International Norms and Standards

For a number of reasons, African countries do not yet contribute to defining or reviewing the systems prescribed by international institutions, even if they do participate in certain technical meetings.

It is proposed to organize permanent thematic working groups, under the responsibility of regional and sub-regional groups whose work programmes entail or may entail the organization of sub-regional and regional seminars and participation in international meetings. The technical discussions of these working groups will be conducted by Internet and alongside sub-regional and regional seminars/meetings.

2.9 Strengthening the Training of African Statisticians

To remedy the lack of statisticians, it is proposed to considerably increase the number of statisticians trained each year. There is need to train as many statisticians as possible, with a view to penerate all job sectors and thus consolidating the development of a statistical culture.

In addition, we suggest to establish an annual conference of statistical training centers and universities aimed at reviewing training curricula and progress made in making training of statisticians more relevant to the demands imposed on the National Statistical Systems.

These should be reviewed in line with the development challenges, in relation to which each course should be conducted within an integrated reference framework. For example, all economic statistics courses should be designed and delivered with a view to facilitating the compilation and analysis of national accounts. Economic as well as social statistics courses should be geared towards the preparation of result-based analysis frameworks.

These courses should be structured around the observation and understanding of the facts and systems relating to living conditions and their translation into information systems.

2.10 African Society for Promotion of Development Knowledge

The multi-dimensionality, complexity and immensity of development measurement tasks justify the establishment of an African statistical society as a pan-African forum for all specialists (economists, sociologists, statisticians, physicians, etc.) involved in activities relating to the measurement of economic and social development of African groups, peoples and nations.

The principal mission of this African society would be to: (i) inventory and gather all studies, research and surveys shedding light on group development processes, notably social and economic, and to identify measurable constants (or measurable permanent features); (ii) promote research in that area; (iii) develop statistical methods of assessing the outcomes and impact of projects and programs on the populations' well being; (iv) contribute to international debates on comparable issues and on the development of international standards and recommendations.

3. Conclusion

The proposals made herein seek to return the human role to the center of statistical development issues. They hinge on three main aspects: statistical advocacy, promotion of a statistical culture aimed at populations at all levels and capitalization of all African intelligence on the issue of development measurement.

Mentoring Young Statisticians: Facilitating the Acquisition of Important Career Skills

Dr. Lehana Thabane[1], Ms. Marroon Thabane[2] and Dr. Charles Harry Goldsmith[3]

Summary

Statistics plays a very important role in science and research. The future of statistics as a field depends heavily on the training and mentoring of young statisticians by mature, experienced statisticians. The purpose of this paper is to discuss the role of mentoring in the development of future statisticians. We describe the importance of mentoring young statisticians and strategies that young statisticians can use to select a mentor. Mentoring of young statisticians is a model that can facilitate knowledge transfer and experience sharing for the betterment of statistics and human development. We offer suggestions for ways in which the mentor can and help their mentee acquire important career skills including suggestions for other things that young statisticians can do on their own to enhance career development. We share our experiences on mentoring and offer suggestions that people can use in their mentoring relationships.

Keywords

Mentoring, mentur, mentee, protégé

Résumé

La statistique joue un rôle important en science et dans la recherche. L'avenir de la statistique en tant que discipline dépend en grande partie de la formation de jeunes statisticiens et de leur mentorat par des statisticiens plus âgés et expérimentés. Le but de cet article est de discuter du rôle du mentorat dans le développement des futurs statisticiens. Nous présentons l'importance du mentorat des jeunes statisticiens et des stratégies qu'ils peuvent développer pour se choisir un mentor professionnel. Le mentorat de jeunes statisticiens est un modèle qui peut faciliter le transfert de connaissance et le partage d'expérience pour l'amélioration de la statistique et du développement humain. Nous proposons des voies par lesquelles le mentor professionnel peut aider son protégé à acquérir des compétences professionnelles, en suggérant notamment d'autres actions que les jeunes statisticiens peuvent entreprendre par eux-mêmes pour améliorer leur carrière. Nous partageons notre expérience de mentors et présentons des suggestions qui peuvent être utilisées par les mentors professionnels dans les conseils destinés à leurs protégés.

1: Assistant Professor, Department of Clinical Epidemiology & Biostatistics, McMaster University and Centre for Evaluation of Medicines, St Joseph's Healthcare, Hamilton, Canada. thabnl@mcmaster.ca
2: Research Associate, Division of Gastroenterology, Department of Medicine, McMaster University, Canada
3: Emeritus Professor, Department of Clinical Epidemiology & Biostatistics, McMaster University and Centre for Evaluation of Medicines, St Joseph's Healthcare, Hamilton, Canada

1. Background

The Canadian English Dictionary and Thesaurus [1] defines a *mentor* as "a wise and trusted advisor or guide" and mentoring as "the practice of assigning a junior member of business staff to the care of a more experienced person who assists him [her] with his [her] career". *Mentor* is synonymous with "guide, teacher, coach, advisor, tutor, instructor, counselor, guru" [1]. A formal definition for *mentee* is not provided in this dictionary, but we shall use *mentee* to refer to a [young] person whose career is under the care of an experienced adult. We will occasionally use *protégé* as a synonym for mentee. Thus, mentoring is a relationship between a mentee [usually a young a person] and a mentor [usually a caring and more experienced adult] whose primary purpose is to help the mentee to define individual career and life goals and find ways to achieve them. A mentors need not necessarily be a friend although he/she may become so in the course of the mentoring process. Mentoring can take place in various forms including face-to-face interactions, by e-mail, telephone or telefax.

There is mounting evidence in the literature indicating that mentoring is an important element for career development of young scientists. Our initial search of Pubmed using the terms "mentoring or mentorship or mentor" revealed 4251 hits. A scan of the literature shows the use of mentoring to be prevalent in several medical fields, including medicine [2-6], nursing [7-10], and surgery [11-13]. We expanded our search to Web of Science (WOS) and Journal Storage (JSTOR). Table 1 shows the results of the search based on different search strategies in the three databases.

Table 1: The Number of Hits in Pubmed, Web of Science and JSTOR As searched on March 3, 2006

Search strategy	Pubmed	Web of science	JSTOR
(mentoring or mentorship or mentor) and statistician	0	4	354
(mentoring or mentorship or mentor) and biostatistician	0	0	52
(mentoring or mentorship or mentor) and biostatistics	4	1	284
(mentoring or mentorship or mentor) andstatistics	332	20	3535
(mentoring or mentorship or mentor) and (statistics OR statistician)	332	23	3539

JSTOR yielded the largest number of hits for each search strategy. However, many of the retrieved publications did not appear to be relevant to the topic. Overall, these numbers indicate the prevailing scarcity of literature on mentoring in the statistics field. This may also be an indicator of lack of systematic mentoring of young statisticians.

The purpose of this article is to discuss the role of mentoring in the development of future statisticians. The rest of the article is organized as follows: In the next section, we describe the importance of mentoring young statisticians; Section 3 describes strategies that young statisticians can use to select a mentor. In Section 4, we discuss the role of a mentor and provide some examples of things that the mentor can do to help their mentee acquire important career skills. Section 5 discusses some additional measures that young people can take on their own to enhance career development, and Section 6 presents some concluding remarks.

2. The Importance of Mentoring Young Statisticians

The training of statisticians takes place in many statistics programs across all of the five continents. While the curricula may vary from program to program, there is sufficient evidence that there is some consensus on the key skills that all statistics training programs should endeavor to deliver [14-22]. However, there is little on how to help young statisticians to develop their careers once they join the work force. Many programs, whether undergraduate or graduate, do not incorporate mentoring as part of their elements. Mentoring is different from supervision. The latter usually focuses on guiding a student on their education plan through proper selection of courses and thesis write-up. On the other hand, mentoring goes beyond graduate education to foster career development at the workplace.

Once they join the workforce, many young statisticians are left to learn important career skills by trial-and-error. There are some tips on career development for statisticians in the pharmaceutical industry [23, 24], research [25] and women in academia [26]. We propose that mentoring can greatly shorten the learning period and improve the process of acquiring skills that are important for career development. Bruce Alberts (from the US National Academy of Science) [27] states that, "*The Future of Science… so important that the health and prosperity of the worlds depends on skillful mentoring of the new generation by the one that precedes it".*

This sentiment is shared by several scientists including El Hoover [28] who writes that, "*Mentoring is an essential component of a successful career in any profession…".* So important is mentoring that Garfield [29] describes it as an "ethical imperative and pragmatic necessi-

ty". The science fiction writer, H. G Wells [30], predicted in the early 1900s that, with developments in technology, statistical thinking "*will one day be as necessary for efficient citizenship as the ability to read and write".*

As in the past, today statistics continues to play a very important role in science and research, and it is a key ingredient in the advancement of human development [31-34]. It is, therefore, crucial that the young generation of statisticians is mentored appropriately to help them acquire the skills needed for the responsibilities they will take on in the future. In the next section, we describe some techniques that young statisticians can use to identify individuals that can act as mentors to them.

3. Identifying a Mentor

We now focus our attention to the mentee and provide some advice on how to select a mentor. We offer no scientific evidence to support our advice and/ recommendations, but these are based on the personal experience of one of the authors [Lehane Thabane] in his mentoring relationship with the third author [Charles Herry Goldsmith], and some of the mentees of both authors. The following steps can be used to guide the selection of a mentor:

I *Identify your career goals:* Prior to engaging in a mentoring relationship, it is essential to identify one's career goals. Some can be short-term while others may be long-term. For example, depending on the type of job and level, you may identify goals that relate to research, teaching (education) or organizational politics. Some young people may find it difficult to identify specific career goals and this may be sufficient reason for one to get a mentor. If this is the case, then move to Step II. Part of the mentor's role is to help the mentee identify career goals and to focus on the feasibility of these goals. It is important to be pragmatic in performing this step: the goals should be achievable.

II. Identify a potential mentor who matches the goals identified in Step I: Experience and anecdotal evidence suggest that people who make good mentors are those that set out to become mentors. Therefore, it is important that [the mentee] identify someone who has a real interest in mentoring young people. Do not hesitate to ask potential mentors if they are really interested in mentoring. Below are some desirable attributes for a mentor [35]:

a. Competence – a mentor has to be competent in some area of statistics;
b. Respect – (s)he should have respect of his or her peers;
c. Power/Influence – (s)he should have power, particularly for dealing with organizational politics;
d. Experience – (s)he must have experience in the role as a statistician, educator or researcher;
e. Political Acceptance – this is somewhat related to power/influence and having respect of his or her peers locally or outside the institution;

f. Honesty – a mentor should be honest in giving both positive feedback and constructive criticism. This is essential in building trust between the mentee and the mentor;
g. stablished Record of Mentoring – an ideal mentor would be someone with an established track record of working successfully with young statisticians. However, there are many individuals who may care about developing young people but may not have a formal mentoring relationship with them; and
h. Respect Confidence – The mentor should keep the discussions to him/herself and not broadcast them to others who may need to evaluate the mentee for tenure, promotion or career awards.

III. Set up a schedule of regular meetings with the mentor: The first the meeting with mentor sets the tone for the relationship. It is important to document the minutes of the meetings for later reference. Clarify the goals of the mentoring relationship; discuss methods of communication, how to resolve disagreements or conflicts when they arise and ask for feedback on goals and discuss strategies to achieve them. Subsequent meetings should provide feedback on the progress made on tasks related to the goals. The discussions may also be on the pros and cons of different choices at different times in the mentee's career. It is essential to keep the curriculum vitae (CV) up-to-date in the format required by the institution and ensure that it properly reflects accomplishments. It is important to acknowledge feedback and the efforts of the mentor. The mentee should do their best to follow on the advice that the mentor provides unless there is a good eason not to, which should then be discussed openly. A good mentor has a real interest in their mentee's success.

Both the mentee and the mentor should regularly evaluate the relationship and look for ways to make it better.

The Internet provides further information on mentoring. Examples include http://www.peer.ca, which provides several resources on peer mentoring including a list of top publications on the topic; and http://www.nwrel.org/mentoring/resources.html, which maintains a list of web resources on mentoring.

4. The Responsibilities of a Mentor

4.1 Montor's role

Being a mentor is an important role with serious responsibilities. Here we describe some of the practical things that a mentor can do to advance career development of their mentees [35-37]. A mentor's role is to:

- open doors – provide opportunities for the mentee. These would normally be opportunities

that would not normally be available without a mentor's intervention or help;
- act as a coach – provide guidance on how to define career goals, where to get resources, help with networking, etc;
- act as an advisor – provide specific advice on how to achieve the mentee's stated career goals, provide alternatives and realistic measures of success;
- act as a protector – protect the mentee from internal system or organizational politics;
- provide honest and timely feedback – provide personal time and meet regularly with the mentee to provide feedback or supportive criticism on issues as requested by the mentee; and
- act as a guide – look after the mentee's interest and guide him/her to a successful career. It is important to remember that the mentor is not a supervisor, but an advisor whose primary role is to nurture the mentee.

4.2 Some practical suggestions for nurturing mentees

There are several practical things that a mentor can do to help a mentee to grow. We have used some of the below in varying degrees and they seem to work well. Because of their experience, most mentors serve on several professional, local, national or international committees, or have connections with people who do.

- Serving on review committees: A mentor can help to get a mentee to serve on committees such as:
  - Research Ethics Boards (REB) (or Institutional Review Boards). This can provide good learning experience and insight to young statisticians on how to deal with ethics in design and analysis of research studies;
  - Grant Review Committees: Serving on these committees can provide valuable experience in research design and grant proposal writing.

  Both of these let the mentee know the types of projects that are being conducted at the institution as well as how a grant is worded to successfully get through the funding hurdles.
- Reviewing Manuscripts: A mentor can write to editors of journals that publish work in the mentee's areas of research interest to request them to consider the mentee for manuscript reviewing. Reviewing manuscripts is one way to learn how to write good manuscripts. If a mentee is doing a review (whether it is journal manuscript or an REB submission), a mentor can provide blinded examples for illustrations to help him/her get started. The mentor can provide feedback on the first draft of the review until the mentee has acquired the skills to perform reviews on him/her own.
- Serving on local administrative committees: This will enable the mentee to serve the local community. Often, young people are excluded from administrative committees under the pretext of inexperience. It is recommended that they be introduced to serving on these

committees under the guidance of a mentor. At first, a mentor can bring them to attend the committee meetings as observers, then facilitate for them to join the committee if they express an interest to serve. This also allows mentees to learn how the system works faster than if they were not involved.

- Serving on professional committees: Participation in professional activities is also crucial for career development and networking. The mentor should encourage the mentee to get involved in local chapters, sections and association-level activities.
- Provide feedback on presentations and manuscripts: Advancement of presentation skills, whether verbal or written, is one of the most neglected skills and an important aspect of career development for young statisticians.
  - o A mentor can watch a mentee practice their oral presentations prior to formal presentations at meetings or seminars. This provides an opportunity for feedback and improvement in a friendly environment.
  - o Similarly, a mentor can provide feedback on written work and guidance to appropriate resources for further information. It is important to keep a list of resources on different issues that are essential for career advancement. Examples include references on making presentations, reviewing a paper, writing a thesis, publishing research papers, teaching, research ethics, developing creativity, supervising (graduate) students, mentoring, job hunting, preparing for an interview, leadership, management, etc. These are important issues that every young statistician needs to know about, but are not exposed to systematically during their formal training. Appendix 1 provides a good example of a resource list that a mentor can use to guide their protégés.
- Protect the mentee from internal politics: If requested, the mentors should accompany the mentees to meetings that are important for the mentees' career. Examples include annual meetings for career review or performance appraisal.
- Provide networking opportunities: Networking is an essential part of career development. Part of the mentor's role is to introduce his/her mentee to different individuals that can help the mentee's career. For example, a mentor can introduce the mentee to other more experienced researchers that work in the same areas of research as the mentee. The selection of individuals for networking can also be based on the career goals of the mentee.

5. Suggestions on Things That a Mentee Can Do on Their Own

Mentoring can improve productivity, enhance career development and facilitate on-the-job learning. The success of a mentoring relationship depends on several factors, including enhanced communication between the parties, clear mentoring goals, increased commitment to the relationship, and a sense of mutual benefit. However, mentoring cannot guarantee career advancement. There is much more that a mentee needs to do on their own to complement the efforts of mentorship.

- Read! Read! And read some more! Reading is key in acquiring new knowledge and ideas. It is important that mentees update and expand their knowledge base through reading resources related to their work;
- Attend appropriate professional meetings or workshops: It is recommended that individuals set goals for attending meetings or workshops, and be selective in the meetings that they plan to attend each year. For example, it may be important to attend meetings only if one plans to:
  - o give a presentation;
  - o present a poster;
  - o attend a continuing education workshop; or
  - o attend presentations by particular speakers with the additional goal of networking with them.
- Attend workshops in non-statistical areas: While it is important to attend workshops in statistical areas where one needs improvement, attending non-statistical workshops is also recommended. For example, most statisticians work in multi-disciplinary environments where they have to deal with the challenging dynamics of human interactions. Taking workshops on [time or people] management, stress management, team building, communication skills, financial management, etc. would preferred to attending a workshop in statistics field with which one already has familiarity.
- Attend or give (inter)departmental seminars/rounds: This provides a good opportunity for networking and to learn the culture of other fields or researchers. For instance, if a mentee works in health research where (s)he is expected to collaborate with clinicians, it is desirable to attend medical rounds/seminars given by clinicians to learn more about what is important in their field. Another example is to give seminars to users of statistics from one's office. Interaction with users enhances understanding between the parties and improves collaboration.
- Be a good citizen and contribute to the development of the discipline: Being a reviewer for granting agencies, journals, REB and so on, is one way to support the academic development of statistics. Be constructive in this role, without belittling the receiver of your comments. Additional benefits of getting involved in these activities include networking, knowledge improvement and better insight on many fronts.
- Ask for help and direction when you do not know. It is equally important to realize when to ask for help. This can save a mentee's time and resources.

6. Concluding Remarks

The future of statistics depends heavily on the training and mentoring of young statisticians. We call on experienced statisticians to increase their (to borrow the words of the Premier of West Cape, South Africa, Mr Rasool [38] at recent Conference of Commonwealth Statisticians), *"… commitment to go beyond what is usual…"* to enhance career development

of young statisticians. We have provided strategies that both mentees and mentors can use to facilitate their mentoring relationship. We hope that readers will find the ideas helpful and practical. Mentoring of and collaboration with young statisticians is a model that can facilitate knowledge transfer and experience sharing for the betterment of statistics and human development.

References

1. Canadian English Dictionary and Thesaurus. Collins, 2004.
2. Koopman R.J., Thiedke C.C. Views of Family Medicine Department Chairs About Mentoring Junior Faculty. Med Teach 2005;27(8):734-7.
3. Luckhaupt S.E., Chin M.H., Mangione C.M., Phillips R.S., Bell D, Leonard A.C., Tsevat J. Mentorship in Academic General Internal Medicine. Results of a Survey of Mentors. J of Gen Intern Med 2005;20(11):1014-8.
4. Farrell S.E., Digioia N.M., Broderick K.B., Coates W.C. Mentoring for Clinician-Educators. Acad Emerg Med 2004;11(12):1346-50.
5. Marco C.A., Perina D.G. Mentoring in Emergency Medicine: Challenges and Future Directions. Acad Emerg Med 2004;11(12):1329-30. Am J Respir Crit Care Med. 2006 Jan 1;173(1):23-31.
6. Rockman P, Salach L, Gotlib D, Cord M, Turner T. Shared Mental Health Care. Model for Supporting and Mentoring Family Physicians. Can Fam Physician 2004;50:397-402.
7. Gibson T, Heartfield M. Mentoring for Nurses in General Practice: an Australian Study. J of Inter-prof Care 2005;19(1):50-62.
8. Hill J.J., Del Favero M, Ropers-Huilman B. The Role of Mentoring in Developing African American Nurse Leaders. Res Theory Nurs Pract 2005;19(4):341-56.
9. Tourigny L, Pulich M. A Critical Examination of Formal and Informal Mentoring Among Nurses. Health Care Manag (Frederick) 2005;24(1):68-76.
10. Block L.M., Claffey C, Korow M.K., McCaffrey R. The Value of Mentorship Within Nursing Organizations. Nurs Forum 2005;40(4):134-40.
11. Singletary S.E. Mentoring Surgeons for the 21st century. Ann of SurgOncol 2005;12(11):848-60.
12. Rosser J.C. Jr, Herman B, Giammaria L.E. Telementoring. Seminars in Laparosc Surg 2003;10(4):209-17.
13. Gaissert H.A., Casale A.S., Creswell L.L., Ferguson T.B. Jr, Fullerton D.A., Kernstine K.H., McMullan D.M., Ring W.S., Putnam J.B. Jr; Society of Thoracic Surgeons Workforce on Clinical Trials. Mentoring Clinical Trials in Thoracic and Cardiovascular Surgery: a New Role for the Society of Thoracic Surgeons. Ann Thorac Surg. 2004 May;77(5):1874-5.
14. Committee on Training of Statisticians for Industry Preparing Statisticians for Careers in Industry: Report of the ASA Section on Statistical Education. Am Statistician. 1980;34(2):65-75.

15. Tobi H., Kuik D.J., Bezemer P.R., Ket R. Towards a Curriculum for the Consultant Biostatistician: Identification of Central Disciplines. Stat Med. 2001;20:3921-9.
16. Iman RL. New Paradigms for the Statistics Profession. J Am Stat Assoc 1995;90(429):1-6.
17. Hammond D. The Training of Clinical Trials Statisticians: a Clinician's View. Biometrics. 1980;36:679-85.
18. Hogg R.V. Statistical Education: Improvements are Badly Needed. Am Statistician 1991;45(4):342-3.
19. Federer W.T. Some Remarks on Statistical Education. Am Statistician 1978;32(4):117-21.
20. DeMets D.L., Anbar D, Fairweather W, Louis T.A., O'Neill R.T. Training the Next Generation of Biostatisticians. Am Statistician. 1994;48(4):280-4.
21. Watts D.G. A Program for Training Statistical Consultants. Technometrics 1970: 12(4): 737-40.
22. Iman R.L. New Paradigms for the Statistics Profession. JASA 1995; 90(429): 1-6.
23. Chuang-Stein C. On-the-job Training of Pharmaceutical Statisticians. Drug Inf J 1996;30:351-7.
24. Liss C.L. Career Development of Statisticians in the Pharmaceutical Industry. Drug Inform Journal2003; (available at http://www.diahome.org/content/Abstract/2003/dij1954.pdf. Last date of access: March 3, 2006)
25. Altman N, Bankis D, Chen P, Duffy D, Hardwick J, Leger C, Owen A, Stukel T. Meeting the Needs of New Statistical Researchers. Statistical Science 1991; 6(2): 163-74.
26. Nolan D. Women in Statistics in Academia: Mentors Matter. Stat Scie 1992; 7(2): 267-72.
27. Alberts B. Science and World's Future. 136th Annual Meeting of the National Science Academy Speech, Washington DC, 1999 (available at http://www.nasonline.org/site/DocServer/1999address.pdf?docID=941) [last date of access: February 24, 2006]
28. Hoover E.L. Mentoring surgeons in private and academic practice. Arch Surg 2005;140(6):598-608.
29. Garfield E. Mentoring Young Scientists Is An Ethical Imperative--And A Pragmatic Necessity. The Scientist 1992; 6(24) : 411-2.
30. Snee R.D. Statistical Thinking and Its Contribution to Total Quality. Am Statistician *1990;* 44(2): 116-21
31. Pocock S.J. Role of Statistics in Medical Research. Brit J of Psychiatry 1980;137:188-90.
32. Ruberg S.J, Mason R.L. Increasing Public Awareness of Statistics as a Science and a Profession-Starting in the High Schools. Am Statistician *1988*: 42(3);167-70.
33. Joiner B.L. The Key Role of Statisticians in the Transformation of North American Industry. Am Statistician 1985;39(3): 224-7.

34. Lievesley D. Making a Difference: A Role for the Responsible International Statistician? Am Statistician 2001;50(4): 367-406.
35. Berk R.A., Berg J, Mortimer R, Walton-Moss B, Yeo TP, Measuring the Effectiveness of Faculty Mentoring Relationships. Acad Med. 2005; 80:66–71.
36. Hawkey K. Roles, Responsibilities, and Relationships in Mentoring: a Literature Review and Agenda for Research. J of Teach Educ. 1997; 48: 325-335.
37. Ensher E, Murphy S. Power Mentoring. How Successful Mentors and Proteges get the Most out of Their Relationships. Jossey-Bass: San Francisco, CA 2005.
38. Rasool E. Opening Remarks of Premier of Cape Town at the 14th Conference of Commonwealth Statisticians: September 5-9, 2005; Cape Town, South Africa.

Appendix: Examples of Resource List by Topic

Topic	Resources
Mentoring	1. Grigsby K. Five Potential Pitfall for Junior Faculty at Academic Health Centers. Academic Physician & Scientist 2004; 2-3 2. Ensher E, Murphy S. Power Mentoring. How Successful Mentors and Protégés get the Most out of Their Relationships. Jossey-Bass: San Francisco, CA 2005. 3. http://www.peer.ca/topmenbks.html (provides a list oftop mentoring
Grant/Proposal Writing	1. Miner LE, Griffith J. Proposal Planning and Writing. Phoenix: Oryx Press, 1993. 2. Ogden TE, Goldberg IA. Research Proposal: A Guide to Success, 3rd ed. NY: Aacdemic Press, 2002
Writing Skills	1. Boice R. Professors as Writers: A Self-help Guide to Productive Writing. Oklahoma: New Forums Press, 1990 2. Peat J, Elliott E, Baur L, Keena V. Scientific Writing: Easy When You Know How. London: BMJ Books, 2002
Management Skills	1. Biech E. Successful Team-building Tools. CA: Jossey-Bass, 2001 2. Sapienza AM. Manging Scientists: Leadership Strategies in Research and Development. NY: Wiley, 1995
Teaching	1. Boice R. First-Order Principles for College Teachers: Ten Basic Ways to Improve the Teaching Process. Boston, MA: Anker Publishing, 1996 2. Pregent R. Charting Your Course: How to Prepare to Teach More Effectively. Madison WI: Magma Publishing, 1994
Ethics in Research	1. Rozovsky F.A, Adams RK. Clinical Trials and Human Research: A Practical Guide to Regulatory Compliance. John Willey: New York, 2003 2. Emanuel E.J, Crouch A.R., Arras JD, Moereno JD, Gardy C (eds). Ethical and Regulatory Aspects of Clinical Research: Readings and Commentary. John Hopkins University Press: Baltimore, 2003 3. Murphy T.F. Case Studies in Biomedical Research Ethics. MIT Press: London, 2004 4. Beach D. The Responsible Conduct of Research. NY: VCH Publisher, 1996 5. Macrina F.L. Scientific Integrity: An Introductory Text with Cases, 2nd Ed. Washington DC: ASM Press, 2000

Topic	Resources
Time and Stress Management	1. Covey S.R, Merril AR, Merrill RR. First Thinsg First. NY: Simon & Schuster, 1994 2. Allen D. Getting Things Done: The Art of Stress Free Productivity. NY: Penguin, 2001 3. Griessman B.E. Time Tactics of Very Successful People. NY: McGraw-Hill, 1994
Conflict Resolution	1. Ury W. Getting Past No: Negotiating Your Way From Confrontation to Cooperation. Bantam Books, 1993 2. Uereli F, De Waal F. Natural Conflict Resolution. CA: Univ. of California Press, 2000
Communication Skills	1. Briscoe M.H. Preparing Scientific Illustrations: A Guide to Better Posters, Presentations and Publications. NY: Springer, 1996 2. Booth V. Communicating in Science: Writing a Scientific Pager and Speaking at Scientific Meetings, 2nd ed. NY: Cambridge Univ., 1993
Reporting Statistical Results	1. Lang T.A, Secic M. How to Report Statistics in Medicine. American College of Physician Medical Writing and Communication. Philadelphia, PA: 2003. 2. Moher D, Schutz K.F, Atman DG. The CONSORT Statement: Revised Recommendations for Improving the Quality of Reports of Parallel-group Randomized Trials. Lancet 2001;357:1191-4. 3. Campbell M.K, Elbourne D.R, Altman D.G. CONSORT Statement: Extension to Cluster Randomized Trials. BMJ 2004;328:702-8. 4. Bossuyt P.M et al. Towards Complete Reporting of Studies of Diagnostic Accuracy: The STARD Statement. Ann Int Med 2003;138:40-5. 5. Des Jarlais D.C, Lyles C, Crepaz N. Improving the Reporting of Nonrandomized Evaluations of Behavioral and Public Health Interventions: The TREND Statement. Amer J. Pub Health 2004;94(3):361-6. 6. Stroup D.F et al. Meta-analysis of Observational Studies: A Proposal for Reporting: The MOOSE Statement. JAMA 2000; 283: 2008-12 7. Moher D, Cook D.J et al. Improving the Quality of Reports of Meta-analysis of Randomized Controlled trials: The QUOROM Statement. Lancet 1999; 354:1896-1900. 8. Speigelhalter D.J, Myles J.P, Jones DR, Abrams KR. Bayesian Methods in Health Technology: A Review. Health Techology Assessment 2000; 4(38): 133 pages (Chapter 8).

Governance, Democracy and Poverty Reduction: Lessons Drawn from the 1-2-3 Surveys in Francophone Africa

Mireille Razafindrakoto and François Roubaud[1]

Summary

Public statistics face quite a challenge when it comes to measuring new dimensions of development (institutional, governance, and social and political participation). To take up this challenge, modules on Governance, Democracy and Multiple Dimensions of Poverty were appended to household surveys by National Statistics Institutes in eight sub-Saharan African countries. This paper presents the issues addressed and the methodological lessons learnt along with a selection of findings to illustrate this innovative approach and demonstrate its analytic potential. We investigate, for instance, the population's support for democratic principles, the respect for civil and political rights and the trust in the political class; the "need for the State", particularly of the poorest; the extent of petty corruption; the reliability of expert surveys on governance; the level and vitality of social and political participation, etc. The conclusive appraisal made opens up prospects for the national statistical information systems in the developing countries. The measurement and tracking of this new set of objective and subjective public policy monitoring indicators would benefit from being made systematic.

Keywords

Democracy, monitoring mechanism, household surveys, governance, poverty, corruption, development policy, statistics.

Résumé

La mesure des nouvelles dimensions du développement (institutions, gouvernance, participation, sociale et politique) pose un redoutable défi à la statistique publique. Pour y répondre, des modules thématiques sur la Gouvernance, la Démocratie et les Multiples Dimensions de la Pauvreté ont été greffés sur des enquêtes auprès des ménages réalisées par les Instituts Nationaux de la Statistique de huit pays africains. On présente ici les enjeux et les enseignements méthodologiques de cette expérience, ainsi qu'une sélection de résultats illustratifs de cette approche novatrice. On s'interroge sur l'adhésion des citoyens aux principes démocratiques ; le respect des droits civils et politiques ; la confiance envers les institutions et la classe politique ; le « besoin d'Etat », notamment des pauvres ; l'ampleur de la petite corruption ; l'efficience des institutions ; la fiabilité des enquêtes-experts sur la gouvernance ; le niveau et la dynamique de la participation sociale et politique, etc. Le bilan concluant qui en

1: Economists and Statisticians, Researchers at IRD, DIAL, Paris, France. roubaud@dial.prd.fr

est tiré ouvre des perspectives pour les systèmes nationaux d'informations statistiques dans les PED. La mesure et le suivi de cette nouvelle batterie d'indicateurs objectifs et subjectifs au service de la conduite des politiques publiques mériteraient d'être systématisés.

Mots clés

Afrique, Démocratie, Dispositif de suivi, Enquêtes auprès des Ménages, Gouvernance, Pauvreté, Corruption, Politique de développement, Statistique.

1. Introduction

Following the relative failure of structural adjustment policies in the developing countries, there is a growing international consensus today about the importance of both the content of economic policies and the process by which they are implemented, particularly in light of new international poverty reduction strategies, namely, the Poverty Reduction Strategy Papers (PRSP) and Heavily Indebted Poor Countries (HIPC) initiatives. New factors such as governance, ownership and participation are now becoming core elements of development programmes. At the same time, the development research agenda has been extended to take into account the interactions between four major dimensions: growth, distribution (of income and assets), the quality of institutions (especially public institutions) and the type of political system (or, more generally, society's value system). Current indicators and aggregates therefore endeavour to incorporate these aspects in order to measure and evaluate development strategies.

It was to address this major challenge that a regional institutions (AFRISTAT) and eight National Statistics Institutes (NSIs) in Africa decided to work in partnership with DIAL to explore the possibilities of using official household surveys as a tool for measuring and monitoring these new development concerns. The statistical operations were conducted in seven economic capitals in West Africa (Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo) and in Madagascar from 2001 to 2003. At the same time, similar studies were conducted in Latin America, in partnership with the Secretariat I of the Andean Community and the NSIs of four Andean countries (Bolivia, Colombia, Ecuador and Peru). Three specific modules ('Multiple Dimension of Poverty', 'Governance' and 'Democracy') were appended to classic household surveys (the 1-2-3 Survey in Africa and the main household survey conducted by each NSI in the Latin American countries).

Although still tentative, these initiatives are already producing promising and plausible results including methodological lessons. For example, initial analyses of survey results are shedding new light on phenomena that had hitherto received little (if any) attention. This paper looks at current African experiences showing the usefulness of the household sur-

veys as statistical tools to generate data useful in the development and monitoring of indicators on governance and democracy in developing countries. Section 2 presents the general framework and the issues involved in measuring governance and democracy in the developing countries. Section 3 covers the basic methodology used in surveys and the main lessons learned while Section 4 presents some examples of empirical findings which illustrate the usefulness of such an approach in terms of analytical results and their policy implications. Section 5 presents the conclusions and explores future prospects.

2. Measuring Governance and Democracy: What Can the Household Surveys Contribute?

2.1 The issues at stake: governance and democracy at the heart of the development policies

In late 1999, the World Bank and the International Monetary Fund (IMF) launched a joint initiative to place poverty reduction at the heart of development policy. All low income countries wishing to receive financial assistance from one of these two organisations, or debt relief under the HIPC Initiative, were required to draw up poverty reduction programmes, known as PRSPs. The PRSP principles have introduced three major innovations. First, the fact that the Bretton Woods Institutions (BWIs) consider poverty reduction rather than structural adjustment to be their main objective is a welcome innovation. Secondly, for the first time the multidimensionality of poverty, beyond its monetary income component, is fully acknowledged (World Bank, 2000). Thirdly, the adoption of the concept of a participatory process to define and monitor PSRPs could reinforce democracy in countries where the population generally has limited ways of making itself heard (Cling, Razafindrakoto and Roubaud, 2003).

With the launch of the PRSPs, the BWIs have made a definite break with past practice. Previously, although national experts helped define policies and such policies were negotiated, however, poor countries had very little influence or leeway. It would be an understatement to say that the information available to the public was limited: the majority of documents used during the negotiations were kept confidential.

Almost all the structural adjustment programmes have failed in the low-income countries, especially in Africa. This is partly due to social and political obstacles preventing the programmes from being fully implemented and partly because the projects were ineffective even when they were properly applied. Two underlying shortcomings in the BWI intervention method go a long way towards explaining these failures. Firstly, it was assumed that international experts were best qualified to draft suitable policies for the countries concerned, based on the notion of best practices. Secondly, those responsible for the programmes at

national level were supposed to be able and willing to implement them efficiently despite the fact that they were considered incompetent, that they were kept at arm's length when the strategies were drawn up. In addition, they did not necessarily fully believe in them.

Two conditions have been established as a result of the development of the notion of "governance", identified as one of the key conditions for the success of the said policies, and the wind of democratisation with its emphasis on the need to pay more attention to the "voiceless" nationally and internationally. Firstly, more attention should be paid to a country's specific economic, socio-political and institutional context. Secondly, there should be a heightened awareness of how important it is for policies to be actively backed by both governments and the population at large.

As regards strategy implementation, the principle of participation by all of society's stakeholders heralds new ways of conducting national affairs. With its emphasis on the right to information and freedom of speech, participation meets the goal of tackling the exclusion and marginalisation aspects of the poor. "Participation", however, can only really make a difference if it helps correct dysfunctions in the workings of democracy in poor countries. It should therefore strengthen the capacities and powers of intermediate bodies including the media, trade unions and associations in the drafting, monitoring, supervision, evaluation and revision of policies. Seen from this angle, information - especially its educational aspect – becomes critically important. It facilitates public choices and the management of affairs of State to be more open, whilst allowing the different stakeholders to put pressure on and even making the State accountable if it fails. In short, the challenge is to ensure that the principle of accountability takes root, making the State responsible to its citizens for its actions.

The concept of a participatory process, which presupposes the active involvement of all society's stakeholders in the drafting, monitoring and implementation of poverty reduction strategies, should first of all enhance the debate and help devise a more appropriate strategy that addresses real social concerns. This approach, known as "empowerment", is intended to give the general public, and the poor in particular, a chance to influence policies that affect their living conditions by improving the definition and consideration of their problems and expectations.

For all these reasons the notions of "good governance" and democracy are now posited as decisive factors for the success of economic policies and, more generally, for explaining national development levels. They are more than just instrumental, for example, democracy contributes to good governance, which itself promotes growth and curbs inequality. They are constituent elements of the population's well-being (UNDP, 2002). For example, respect for individual freedoms, namely political freedom, freedom of speech, etc., may be considered as an intrinsic element of development. By the same token, a good administration boosts the

general feeling of justice in the population by reducing discriminatory practices i corruption.

The latest World Development Report (World Bank, 2005), with its focus on equity and development, provides additional arguments for promoting these aspects. The contention is as follows: although there could be a clash between equity and efficiency in the short run, these two factors are complementary in the medium and long run. Development trajectories are largely conditioned by the institutions, which are themselves shaped by the distribution of power in the different societies. For example, history has shown that the economic institutions that tend to develop and take root in countries where power is in the hands of a small elite are not conducive to development. Conversely, greater political equality, wherein democracy is a catalyst, improves the quality of institutions by extending the range of social groups that can actively contribute to the political, social and economic spheres. This consequently improves the prospects for prosperity. By acknowledging, for the first time, that political processes and institutions are behind virtuous development circles, the report makes empowerment policies one of the two pillars along with reducing market imperfections for both poverty reduction strategies and strategies to promote equal opportunities nationally and internationally.

Lastly, a new demand for public policy monitoring and assessment indicators has been created by the consideration of governance and democracy issues in development policies, and especially in poverty reduction strategies, and the acknowledgement of the crucial role played by the political economy as a factor for successful reforms. The implementation and quantification of these new policies' pertaining to accountability, ownership, participation, voicing and empowerment – pose a formidable challenge to the national statistical systems, which are poorly equipped to meet the challenge in many developing countries..

The legitimacy of this new statistical focus is welcome, in addition to the "institutional" demand generated by the development policies, the academic world and especially the field of economics is showing an interest in it. With the turnaround in players (microfoundations of macroeconomics), new prospects have opened up in growth economics in the last ten years. A considerable number of studies have endeavoured to overcome the limits of the traditional approach by introducing, in addition to the classic production factors (capital and labour) and technological change, new variables to explain long-run development paths (ethno-linguistic fractionalisation, religious diversity, the "quality" of the institutions, the origin of law, legal and political regimes, geographic location, cultural factors, etc.; for a review of the literature in this field, see Feng, 2003; Razafindrakoto and Roubaud, 2005a). This revival, that could be called a real growth econometrics "industry" (Srinivasan, 2001), is fuelled by a proliferation of new international databases. Table 1 gives an idea of some of the main sources in this field (see Sudders and Nahem, 2004, for a more comprehensive presentation).

Table 1: Examples of international databases on governance

Indicator/database	Institution
Governance	
- CPIA (Country Policy and Institutional Assessment)	World Bank
- Governance Matters I-IV (Voice and accountability, Political stability, Government effectiveness, Regulatory quality, Rule of law, Control of corruption)	Kaufmann, Kraay, Mastruzzi/World Bank
- ICRG (International Country Risk Guide)	Political Risk Services Group
- IEF (Index of Economic Freedom)	The Heritage Foundation
- IPC (Perception Corruption Index)	Transparency International
Democracy	
- Political rights, Civil liberties, Freedom Status	Gastil/Freedom House
- Polity I-IV (Polity's institutionalized-democracy index)	Gurr/University of Maryland (CIDCM)
- Bollen's Index (Bollen's liberal-democracy Index)	Bollen/University of North Carolina/ (ICPSR)
Other indicators	
- ELF (Ethno-linguistic Fractionalization)	Roeder/Dept. Political Science, University of California, San Diego
- World Values Survey (Trust, well-being, etc.)	Inglehart/WVS Association, Institute for Social Research, University of Michigan

2.2 Household surveys: an appropriate approach?

The approach based on qualitative and participatory methods, referred to nowadays generically as *Participatory Assessments* (PAs) was first developed in the mid-1990s, particularly in the field of poverty with Participatory Poverty Assessments (PPAs). Its main objective is to take account of the views of society's different players, especially the poor. It is based on two underlying principles. Firstly, recognition of the fact that the poor are poverty "experts" and are in the best position to define the nature of the phenomenon, its origins and how to escape it. Secondly, recognition that poverty has many facets that may be hard to cover in traditional quantitative surveys and cannot be reduced to the usual lone monetary criterion. The general participatory approach entails more than just collecting data. It is designed to involve the different key players, especially representatives of the poor, in the process of monitoring the policies implemented.

PPAs have been introduced in many countries (around sixty), largely at the encouragement of the World Bank. They are based on sociological and anthropological surveys using various techniques such as open and semi-directive, individual and focus group interviews, visual methods (tables and diagrams) and observations (World Bank, 2002). The participatory assessments have been used for a vast consultation programme (Consultations with the Poor)

initiated by the World Bank to give the poor a hearing (Narayan et al., 2000; Narayan et al., 2000). The objective is to obtain their views on four specific areas:

- Perceptions of poverty (definition of the concept, causes and difficulties encountered);
- The main problems and priorities involved in drafting policies;
- Their experiences with the various institutions (local and outside the community);
- Gender inequality, both within the household and the community.

Main findings and limitations of the PPAs

The PPAs' main findings are twofold. Firstly, this approach has provided greater insight into poverty. In particular, it has shed light on its many aspects. In addition to the traditional aspects associated with income and consumption levels and access to education and health, the analyses reveal other aspects such as vulnerability and insecurity, exclusion and the inability of the poor to influence the socio-economic factors that determine their standard of living (powerlessness), and a lack of dignity and self-respect. Secondly, from the policy point of view, the basis for reform is broader and firmer. Participatory methods have triggered a dialogue, which promotes policy ownership by involving the various stakeholders.

However, this approach has its limitations. The first is that the data collected are over-descriptive and not very helpful for decision-making. Decision-makers more often than not require quantitative data to help with policy-making. Being subjective there is much different interpretation of results, which may create conflicts of interest. The question also has to be asked as to whether the views expressed in the surveys are representative of those of the poor population as a whole - the voiceless. Furthermore, the direct impact of participatory assessments may be limited, especially in the short term. Yet the methods generate huge expectations among those involved, who consider their (time-consuming) involvement to be an investment. Disappointment due to over-optimism can then quickly demotivate the respondents, bringing into question the continuity of the participatory process. Finally, those using participatory approaches are generally not very interested in follow-up work and assessing reforms once they have been implemented.

Subject-specific modules appended to the statistical surveys: an alternative approach

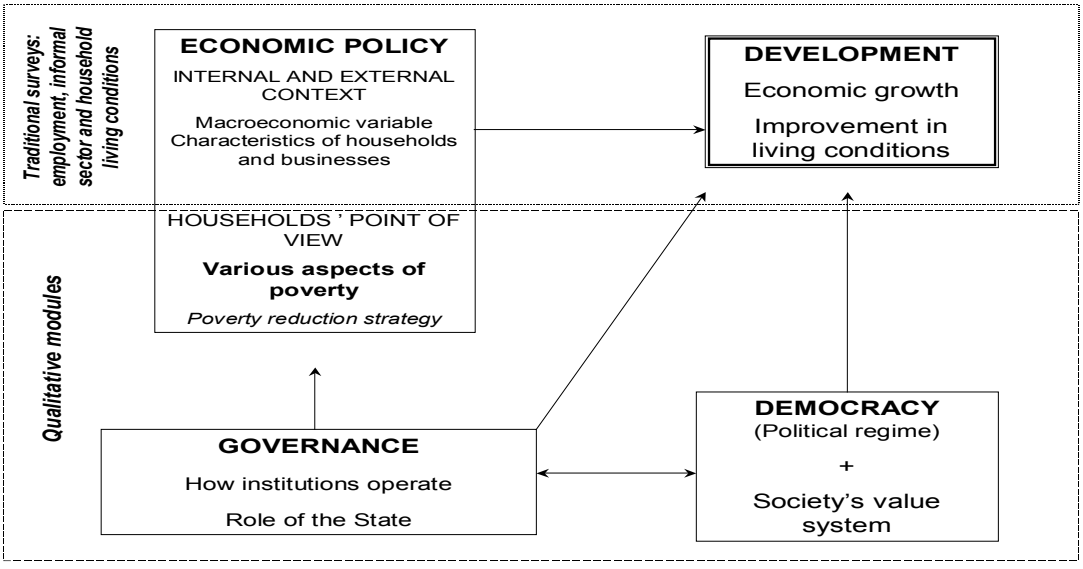
PPAs designed to give the "poor a voice" using qualitative and participatory methods have clearly improved the information available on poverty. But one particular question needs to be asked: how far can we go on this track? This approach leaves unsolved the problem of converting findings into information that can be used to implement specific policies at national level.

An alternative and/or complementary approach is proposed, which meets the need to gather representative opinions and could consequently solve the problem of having to make a trade-off between the many different points of view. This approach is to attach modules in the form of opinion polls onto classic periodic quantitative surveys - preferably relatively "light" surveys. These opinion polls may relate to topics that vary from year to year. The qualitative questions put by the participatory approaches are thus standardised within these modules. People (including the poor) are asked how they perceive poverty (definition and causes), what their problems and requirements are, what they think about the policies already implemented and how they would devise appropriate strategies to meet their expectations. Diagram 1 presents links between governance, democracy, economic policies and living conditions which can be established with qualitative modules.

In addition to this approach, subject-specific modules can be included to cover the households' cultural, social and political environment. Paradoxically, there is virtually no information available on these subjects in the developing countries, especially Africa, even though many analysts stress social, cultural and political factors as determining the way in which African societies operate.

This approach has the advantage of collecting both objective data on the situation of households and individuals through, for example, the socio-economic part of the survey covering income/consumption levels, housing conditions, etc. and subjective data from respondents' perceptions and evaluations on levels of satisfaction with their living conditions, their difficulties and needs, and their opinions regarding policies and how the institutions are run. Since the surveys are representative, the subjective results can be generalised to the target population. Opinions can also be analysed in terms of the characteristics of the individuals concerned. Lastly, the behaviour and opinions of the poor can be compared with the rest of the population when the survey is linked to a classic living conditions assessment for households, thus shedding light on the impact of poverty reduction strategies.

Diagram 1: Qualitative modules for understanding links between governance, democracy, economic policies and living conditions



Thus, at a time when public policies are starting to focus on the concept of empowerment, socio-political surveys are helping to give a voice to social groups traditionally on the fringes of the decision-making process and boosting their bargaining power. This contribution is proving to be all the more important in that, in the poorest countries where intermediate civil society institutions are in their infancy where they exist, such surveys, along with elections, are the only way in which the voiceless can make themselves heard by the authorities.

Participatory processes provide the conceptual framework and confer legitimacy on the part played by society at large in strengthening governance and democracy in developing countries. The present weakness of civil society organisations in the three areas of representativeness, legitimacy and capacity leads us to cast a critical eye on experiments currently being carried out in the field. If any progress is to be made, action is needed simultaneously on two fronts:

- Strengthening the "intermediate bodies" able to pass on people's aspirations and act as a counterweight. We have to fill the yawning gap between the State, the political elite, the all-powerful big men and the little men acting alone. This is the stance taken

by numerous donors who support institutional structures such as associations of water users and rural producers, mutual savings and loan associations, trade unions and human rights leagues, and election-monitoring groups. By its very nature, this is a long-term process;

- Strengthening the accountability or democratic responsibility of governments whilst helping the general public to make their preferences and choices known (voicing and empowerment) through household survey results and opinion polls. It is this method, which is largely overlooked and yet much more feasible to put into effect, that we shall explore here.

These two complementary fronts interact positively with each other. The survey findings provide the civil society organisations (CSOs) with an excellent foundation to highlight their demands (advocacy) and increase their legitimacy and also serve as an instrument for informed dialogue with the official bodies. In return, the CSOs can encourage the ownership and sustainability of the surveys by expressing a strong social demand for them and taking part in their design, conducting and dissemination of results.

2.3 Economic policies, governance, democracy: the role of NSIs

Subject-specific modules incorporated into representative household surveys may be an original poverty analysis tool largely underutilised in many developing countries, but they have potential for wide range applications. The wave of democratisation worldwide, and especially in Sub-Saharan Africa, has made the widespread use of opinion polls possible and indeed necessary as a source of information and policy guidance, alongside the classic economic statistics. On the one hand, the setting up of democratic regimes has removed the political obstacles (censorship) that ruled out such polls, and on the other hand, the very fact that democracy exists implies that everyone can have access to information, and as much of it as possible. Hence it is only natural that modern communication technologies should be made available for use by the general public and its representatives, faced as they are with numerous problems in making collective choices.

Although the merits of the survey approach are not in doubt, there are questions pertaining to which institution should be responsible for them. In the developed countries, they are generally conducted by private opinion research institutes, but many of them are financed from public funds and conducted by governments or scientific research organisations. In France, for example, short-term household surveys are carried out by INSEE and CREDOC, and political surveys by CEVIPOF (1978, 1985, 1995, 1997, etc.). At European and international level, there are the long-term monitoring systems such as the Euro-barometers, opinion polls conducted in the European Union countries every year since 1970, the Political Action Surveys and the World Values Surveys. The latter have already published four successive editions (1981, 1990, 1995 and 1999-2001), extending the geographical coverage from 22

countries for the first wave to 43 for the second and 65 for the most recent wave (Inglehart, 1997, Inglehart and Welzel, 2005).

As already mentioned, in the poorest developing countries, especially in Africa, organisations of this kind do not perform this task. In most countries, they are non-existent, and where they do exist, human and financial resources are often too limited for this kind of operation to be undertaken. There are therefore at least three reasons to support that the National Statistics Institutes are the best placed for conducting such surveys. Firstly, the NSI generally has the technical expertise in household surveys. Secondly, these surveys often serve a genuine public service mission and hence require public funds. Thirdly, the strong potential demand for these surveys is a powerful lever that could help reinstate the social function and visibility of the NSIs. Madagascar is a good example of the relevance of this choice. Of course, the involvement of NSIs does not impede private/research institutions from conducting such type of surveys. Multiple sources allow for triangulation of the results and give opportunities for cross checking and evaluating the reliability of data.

3. The Surveys: General Presentation and Methodological Lessons

This section presents the main characteristics of the survey system used with respect to sampling, subject coverage and initial methodological lessons learnt from such studies.

3.1 The surveys' characteristics

Based on the experience acquired by the MADIO project in Madagascar since 1995 – a project that has tested and improved the survey system by identifying the most relevant questions (Roubaud, 2003a) – three specific modules (Multiple Dimensions of Poverty, Governance and Democracy) were developed and appended to the 1-2-3 Survey on employment, the informal sector and poverty. The survey was conducted in seven WAEMU economic capitals (Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo) and in Madagascar from 2001 to 2004 (Razafindrakoto and Roubaud, 2005b). The studies were also conducted in four Andean countries (Bolivia, Colombia, Ecuador and Peru) from 2002 to 2005. In Latin America, the modules were attached to the main household survey conducted by each NSI as part of the official statistics programme. The surveys covered a representative sample of over 35,000 adults accounting for 21,000 households in the eight African cities. Over 50,000 people were interviewed in the four Latin American countries, samples large enough to allow for valid inferences of results to be made at national and regional levels.

The studies were successful from both a methodological point of view, in that governance and democracy could be reliably measured, and from the analytical standpoint in that the findings could be used to inform public policy formulation. This prompted an ownership pro-

cess with two countries deciding to permanently incorporate this type of survey into their national statistical survey programme. INSTAT in Madagascar now carries out the survey annually while the INEI in Peru conducts the survey on an ongoing basis using own resources to assess the temporal dynamics (monthly, quarterly and annual) of the indicators studied. Other countries such as Benin and Mali are also considering conducting the surveys on a regular basis.

From an institutional point of view, this programme is part of the international Metagora project hosted by the OECD/PARIS21 and financed by the European Union and Swiss, Swedish and French bilateral co-operation agencies. The purpose of this project is to propose methods for measuring human rights, democracy and governance. At the Montreux Conference on Statistics, Development and Human Rights held by Inernational Association of Official Statistics (IAOS) and the Swiss Federal Statistical Office in September 2000, a dialogue among 123 countries and 35 international organisations was initiated, for the first time, between the community of statisticians and human rights organisations. The organisers showed a great deal of interest in the work presented by MADIO at the above mentioned conference. The consultations continued in subsequent years during the set-up phase of the Metagora project, in particular through a series of seminars (Munich, January 2002; Merida, Mexico, April 2002; Brussels, November 2002; and Berlin, August 2003).[2] DIAL and its partners' are extending this work beyond the Madagascar by extending it to West Africa and Latin America. This work was therefore incorporated as one of the Metagora components when it was set up in February 2004.

Although repeating the survey annually means that the indicators can be monitored regularly over time, the main benefit from the surveys in the other African capitals was simultaneity of conducting identical surveys in a number of different countries, thus laying the foundation for generating comparable regional data. This is an important contribution as this is the first experiment of its kind in the area of household socio-economic surveys in Sub-Saharan Africa. The 1-2-3 Survey, which forms the basis for this study, is a system of three nested surveys designed to track the trends in employment, the informal sector and poverty. The first phase is a survey of household employment, unemployment and working conditions (phase 1: Labour Force Survey). The second phase focuses on the heads of informal production units (IPUs). The third phase is a household consumption survey designed to estimate households' standards of living and analyse the determinants of poverty which is a survey on consumption, points of purchase and poverty. To this basic structure are added the subject-specific modules appended to one of the phases in line with the statistical unit stud-

2. Measuring Democracy and Good Governance, The European Commission, EUROSTAT, CDG Munich Centre, Munich, January 2002; Indicators and Diagnosis on Human Rights: The Case of Torture in Mexico, Comisión nacional de los derechos humanos, Merida, Mexico, April 2002; Statistics and Human Rights, The European Commission, EUROSTAT, Munich Centre, Brussels, November 2002; the International Statistics Institute International Conference, Berlin, August 2003.

ied (household, individual or IPU). Given that the statistical unit for the Multiple Dimensions of Poverty module of this project was the household, it was appended to phase 1 household sheet. The Governance and Democracy modules were interested in the opinions of individuals aged 18 years and above, and so were incorporated into phases 1 or 3 depending on the country (Table 2).

Table 2: Main characteristics of the modules in Africa

%	West Africa							Madagascar	
	Cotonou	Ouaga-dougou	Abidjan	Bamako	Niamey	Dakar	Lome	Antana-narivo	Total
Phase 1 sampling plan:									
Total number of basic units	464	713	2,483	993	368	2,041	129	1,330	8,521
Number of basic units in	125	125	125	125	125	125	125	108	983
sample	3,000	2,500	2,500	2,500	2,500	2,500	2,500	3,019	21,019
Initial number of households									
in sample	3,001	2,458	2,494	2,409	2,500	2,479	2,500	3,019	20,860
Final number of household in									
sample									
Subjective Poverty module:						10/2002		12/2002	-
Survey date	10/2001	10/2001	06/2002	10/2001	09/2002	02/2003	09/2001	01/2003	
Unit of analysis	Household	Household	Household	Household	Household	Household	Household	Household	Household
Number of households	3,001	2,458	2,494	2,409	2,500	2,479	2,500	2,734	20,575
Questionnaire	Full	Full	Full	Full	Full	Full	Full	Full	Full
Number of questions	78	78	78	78	78	78	78	78	78
Governance and Democracy						10/2002			-
modules	10/2001	10/2002	06/2002	10/2001	09/2002	02/2003	10/2001	04/2003	
Survey date									
Unit of analysis	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult
Survey phase	Phase 1	Phase 3	Phase 1	Phase 1	Phase 1	Phase 1	Phase 3	Phase 2'	-
Number of individuals	6,328	2,023	4,794	4,482	6,431	6,829	1,840	2,807	35,534
Questionnaire	Full	Partial	Partial	Partial	Full	Partial	Partial	Partial	-
Number of questions	124	119	117	117	124	113	114	120	-

Sources: 1-2-3 Surveys, Phase 1, Phase 3, Multiple Dimensions of Poverty, Governance and Democracy modules, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

From the point of view of subject content, the DIAL researchers developed three generic modules: Multiple Dimensions of Poverty, Governance and Democracy. These were then discussed and revised by the project's different partner institutions, bearing in mind that the final choice of questionnaires was made at national level by a process of reviewing the draft questionnaire and consultations in each country. In general, the design of the questionnaires and the formulation of questions had to meet the following two criteria:

- Firstly, the total number of questions included in the modules took into account the fact that the modules were appended to existing surveys whose scope (employment, consumption, living conditions, etc.) differed from that of the modules and from one country to the other. This constraint obviously affected the amount of data that could be reasonably collected;
- Secondly, the project's comparative objective had to be balanced with the need to avoid glossing over national particularities and areas of interest.

The Multiple Dimensions of Poverty module proposes new poverty tracking indicators to evaluate, and enhance the content of poverty reduction policies. Particular attention has been paid to household perceptions of their living conditions and their own subjective assessment of their level of well-being. The Governance module focuses mainly on the running and efficiency of the public institutions, objectively and subjectively, and the role of the State. A number of questions solicit for information on the main sources of dysfunctions, with a particular focus on corruption and absenteeism among civil servants. The Democracy module addresses three classic subjects in the field of political surveys: support for democratic principles, the actual practice of democracy and the nature of the link between citizens and polity.

As a complement to the household in the areas of Governance and Democracy, a survey of experts was conducted in the eight African countries. A total of 250 specialists from the South and the North responded to this Mirror Survey (researchers, development specialists, decision-makers, high-ranking public officials, politicians, etc.). Its aim was to compare the general public's responses with those of the experts on questions common to both studies.

The "experts" were asked to select a country, among the eight, based on their individual knowledge of a country and then completed the Mirror Survey questionnaire, which was actually a simplified version of the questionnaire administered to the general respondents. Two sets of questions were put for each of the two modules (Governance and Democracy):

- The first and most original set of questions were designed to gain an idea of what the experts thought the interviewees answered on average. For example, as regards the question "Does democracy work well in the country?", each respondent had to estimate the percentage of ordinary citizens who answered "Yes" in their chosen city;
- The second set of questions concerned the expert's own opinion as regards these same questions. For example, given the same question as above, they were asked to give their personal opinion of how well democracy worked in the chosen country.

To facilitate the analysis, the experts were asked to provide some socio-economic and demographic characteristics such as gender, age, occupation, knowledge in the field, etc.

The issue of sampling design for the Mirror Survey was not a probability sample in that there was no comprehensive sampling frame covering all potential "experts". We therefore applied the method used by most of the expert surveys, drawing on DIAL's networks of correspondents worldwide, in both the North and the South. We also had access to the networks of other partner institutions working on these issues (the DAC/OECD GovNet, the Metagora project, the French Directorate General for International Co-operation and Development (DGCID), etc.). In addition, the questionnaire was applied during meetings of experts (CODI, ECA and Addis-Ababa meetings) and training sessions organised by various institutions (InWent Centre, Munich) for development practitioners. Last but not least, the survey questionnaire was sent to all recipients of DIAL's newsletter Dialogue and was also put online on the DIAL website. Although the nature of the Mirror Survey is such that its representativeness cannot be formally assessed due to a lack of a clearly defined reference population, the close correlation with the main international databases on this subject can be considered to be a form of ex-post validation of the survey (see the findings below).

3.2 The main lessons learned

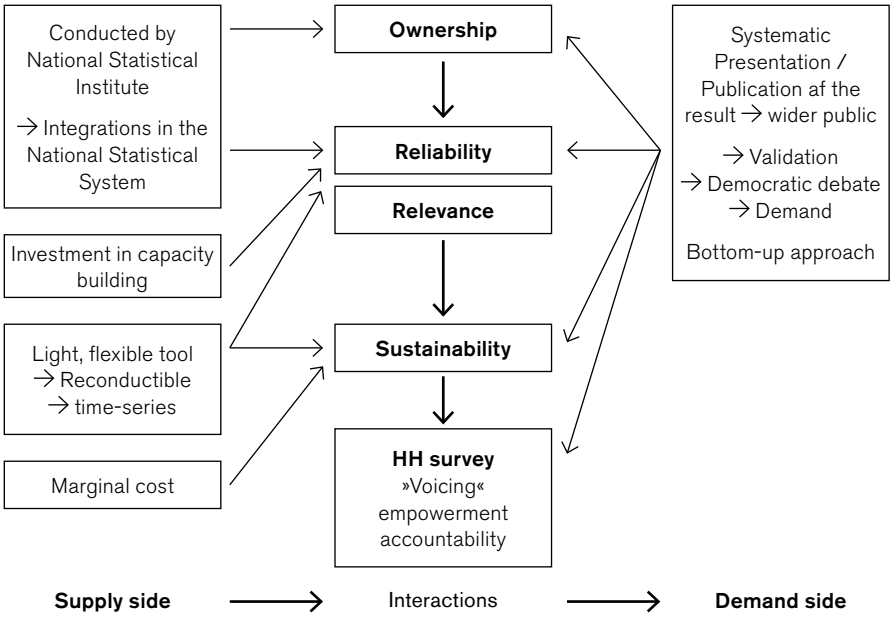
The general methodological lessons that can be drawn from these studies are as follow:

- The approach offers all the recognised advantages of a statistical household survey: transparent measurement procedures, representativeness of collected information and quantification of phenomena, providing benefits such as the ability to compare indicators across different time periods. Such properties compare positively with those of the macro indicators drawn from the international databases, despite the gradual improvement in their quality (Kaufmann, Kraay and Mastruzzi, 2005). The household survey sample sizes and sampling methods provide high-quality estimates whose precision can be meticulously computed. This is not possible with most of the opinion polls using the quota sampling method.
- The wealth of the collected information allows for in-depth policy-oriented analyses, which would be impossible using other sources. These analyses are more useful to the development of specific policies than the aggregate indicators on governance and democracy available from international databases. There is also a broad consensus today that the two approaches are more complementary than competitive. Firstly, the aggregate governance indicators, where the basic data are made up of country/year, have the advantage of extensive geographic and/or time coverage. They can be used for both "growth econometrics" analyses and to rank the countries, subject to caution as to the accuracy of the indicators. These uses are of direct interest to the donors. Secondly, the surveys provide many possibilities for understanding individual behaviour and hence for a more thorough definition of specific and better targeted policies.

- While collecting both objective (behaviour and actual experiences) and subjective data (perception and satisfaction) on poverty, governance and democracy, we consider the possibility of monitoring and comparing the two basic aspects of these phenomena. For example, the perception of corruption can have just as decisive an impact on a country's political or economic stability as the objective incidence of corruption.
- Moreover, these two aspects can be combined with classic variables concerning the individuals and households' socio-economic characteristics (income, occupation, gender, age, ethnic group, etc.). The findings can hence be disaggregated and specific sub-group population characteristics and disparities highlighted, focusing in particular on the cases of the most disadvantaged and those who suffer the most from discrimination. This approach therefore allows for indicators to compare the situations (or perceptions) of men and women, poor and rich, and even different ethnic groups.[3]
- Furthermore, this approach of simultaneously conducting the same surveys in different countries opens up new and interesting possibilities for collecting international comparable data.

The strong points and basic principles of the modules appended to the 1-2-3 Survey are summarized in Diagram 2.

Diagram 2: The strong points and basic principles of the modules appended to the 1-2-3 Survey



3. In Peru and Ecuador, subnational representativeness means that regional indicators can be produced (spatial disaggregation). This is of particular relevance to steering existing decentralisation processes and assisting local democracy and governance.

3.3 An evaluation of the mechanism's relevance and the robustness of its findings

An evaluation of the surveys conducted and related studies clearly shows that it is possible to develop indicators to evaluate how well the institutions and democracy are working, and to measure the extent of support for policies among the general public. Data used in computing indicators are generally easier to collect than traditional socio-economic data, for example, relevant to measurement of monetary poverty (Table 3). The non-response rate for questions on governance and democracy is generally lower compared to observed non-response rate for questions on income (Amegashi *et al.*, 2005).

Table 3: % rates of non-response to certain module questions in Africa

Questions on:	Cotonou	Ouaga-dougou	Abidjan	Bamako	Niamey	Dakar	Lome	Total
Running of the State	0	3.6	0.9	1.1	2.7	5.2	3.5	2.2
Opinion of democracy	0	2.8	0.5	0.9	1.9	3.1	0.3	1.1
Income stated in value	59.9	45.7	59.0	56.6	47.6	43.3	62.7	53.4
Income stated in value or brackets	97.7	93.4	96.8	93.3	84.8	90.2	98.3	93.6
Income not given	2.3	6.6	3.2	6.7	15.2	9.8	1.7	6.4

Sources: 1-2-3 Surveys, Phase 1, Governance and Democracy modules, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

A scientific comparison with other international initiatives (Afrobarometer and African Governance Project) reveals a close convergence of findings in the common fields – confirming the robustness of the proposed indicators – and the areas in which the different instruments complement each other (Tables 4). The close involvement of National Statistics Institutes in the measurement of governance and democracy, the accuracy of the estimates and the intrinsic link with traditional economic indicators, particularly poverty indicators, are major advantage of this approach. Also, the wide diversity of political contexts, in terms of freedoms and rights, in which the surveys were conducted, shows that the approach can be implemented in a wide range of developing countries, extending well beyond the scope of just the new democracies. Furthermore, in countries that have experienced huge political upheavals (e.g. Côte d'Ivoire, Madagascar and Togo), where the general public has shown particularly strong support for democracy, the survey provides a better insight into the nature of the problems, and could probably be used for the implementation of targeted preventive measures before the identified tensions degenerate into open conflict. From a more general point of view, an additional argument for the merits of the approach is found in the proliferation of regional projects using household surveys to gauge governance

questions worldwide, including in sub-Saharan Africa (see, Bratton, Mattes and Gyimah-Boadi (2005) on Afrobarometer and ECA (2005) on the surveys associated with the peer review mechanism).

Table 4: Comparative table of three regional initiatives in sub-Saharan Africa

	PARSTAT Project (AFRISTAT/DIAL) 1-2-3 Survey	**AFROBAROMETER (MSU/IDASA/CDD-Ghana)**	**UN-ECA Project (NEPAD peer review process)**
Countries concerned (coverage)	Capitals of 7 African countries (Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo) + 7 cities in Madagascar - Urban areas samples (35,000 individuals; over 4,000 per country on average)	18 countries (Southern Africa, East Africa and West Africa) National sample (urban+rural) (in general 1,200 individuals/ country)	Phase 1: 14 countries Phase 2: 19 countries national coverage (samples of 100 experts and 2,000 heads of household per country)
Objectives **Methodology**	Overview of situation/ understanding/ measurement and tracking+comparison à Statistical household survey (all individuals in the household) Standardised modules (opinion surveys) appended to classic surveys (1-2-3 Survey on employment and consumption) à Cross-referencing with socio-economic variables (income, employment, etc.)	Measurement of the social, political and economic climate Monitoring and comparison of countries à Household survey (opinion polls) (one individual/household) A standardised set of questions (standard tool: see Eurobarometer; latino-barometro and Asian Barometer)	Monitoring of good governance progress in Africa Peer Review for NEPAD à Three instruments: 1- Opinion of a panel of experts (assessment<>indicator) 2- Opinion survey (of heads of household) 3- Documentary review (factual and/or background info on the institutions)
Organisation / Institutions: Co-ordination team & partners	Co-ordination and technical assistance: AFRISTAT and DIAL Partners responsible for the surveys and analyses: National Statistics Institutes	Network co-ordinated by IDASA – South Africa, CDD-Ghana and Michigan State University (MSU) National partners (in charge of the surveys): Independent private bodies: research institutes, NGOs, private sector	Co-ordination UN – CEA Partners: National Research Institutes and/or private consultants (research bodies) <> (independence)
Dissemination of findings	Country analysis ◊ Local press National and regional conferences/seminars Broad public dissemination	Informs the policy decision-making process, generally by the NGOs Dissemination to decision-makers, donors, journalists/ researchers	Discussion workshops & publication of findings at national level + Africa Governance Report (AGR) presented at the 2005 African Development Forum

3.4 The process of setting up the surveys and disseminating the findings

As regards demand, the processes of setting up the surveys and disseminating the findings form one of the strong points of the system. The aim here is to build a process that satisfies the principles of the new poverty reduction strategies and, more generally, the development policies: accountability, ownership and participation. This can only be realised if it is in line with the real situation of the institutions in each country, whether public or originating from civil society. It is moreover this constraint that justifies the application of a different strategy in Africa to Latin America.

In Africa where institutions are weak, the process is a long-term one starting with the Madagascan example and moving onto the West African countries. At the outset, at the instigation of the MADIO project, variable subject-specific modules were added to the 1-2-3 Surveys every year starting in the mid-1990s. Based on the pilot test conducted in 1995 and decided on unilaterally by the statisticians, the process has been gradually consolidated by a system of mutual feedback and adjustment between "supply" and "demand".[4] The systematic holding of public conferences and the wide circulation of findings beyond the small circle of decision-makers has demonstrated social demand for these issues, while repeating the surveys has provided the possibility to hone the statistical tools. Although the institutions (ministries, employers' organisations, trade unions, etc.) took part in the process, the media played a central role. By massively reporting on the findings, raising new questions and supporting the entire approach, the media brought to light the existence of an initially latent and then explicitly formulated demand and contributed to the institutionalisation of the process.

Only when the experiment had been consolidated in Madagascar was it extended to the WAEMU countries where a similar cycle tailored to each national circumstances was launched. Generally speaking, such an approach in itself helps to promote and enhance the democratic debate and strengthen the institutions – the NSIs, obviously, but also civil society organisations that draw on the surveys to underpin their expertise and hence their legitimacy – while spreading the "culture of statistics".

Downstream, experience has shown that there is often more demand for governance and democracy indicators than traditional socio-economic indicators – as shown by the high public and media turnout at events to announce findings in the countries under study (Madagascar, Mali, Peru, etc.). Furthermore, by providing food for thought for public debate on policies and the major development issues, this type of survey helps strengthen democracy, reveal the wishes of the public and empower 'voiceless' sectors of the population.

4. This first survey conducted in 1995 immediately gave rise to in-depth analyses whose findings were swiftly and widely disseminated to answer topical questions of the moment (Razafindrakoto and Roubaud, 1996).

4. Some Illustrative Examples of Findings

Following these methodological considerations, some empirical examples are presented to illustrate the merits of the approach. A few examples have been chosen from each of the three modules. A more detailed analysis can be found in the regional survey report (Razafindrakoto and Roubaud, 2005b) and in each of the national reports.

4.1 Subjective poverty or the consideration of the different factors influencing the perception of poverty

The multifaceted nature of poverty is now unanimously acknowledged. Driven in particular by Amartya Sen, the definition of poverty, initially based solely on the monetary criterion, has gradually been extended to take in different concepts such as a lack of capabilities (e.g. opportunities to access education and health), vulnerability, a feeling of exclusion, and dignity. The 1-2-3 Survey module on the Multiple Dimensions of Poverty explores the individuals' points of view and their perception and assessment of their situation. We have looked at the notion of subjective poverty, with one of the approaches being based on the classic concept of satisfaction of basic needs as a way of defining poverty[5]. Unlike the indicators usually used, which are normally based on objective criteria, we ask the population to define what they consider to be basic needs and to express their level of satisfaction as regards these needs.

Although the minimum basket of needs (the top seven[6] of 26 suggested items) for a decent standard of living is on the whole the same regardless of the country studied, the classification of these needs and percentage of the population considering them important varies from one country to the next. Bamako and Ouagadougou stand out in particular for the extremely low proportion (less than half) of inhabitants who view access to electricity as essential (Figure 2). Similarly, less than two-thirds of the population in Bamako and Niamey deem it vital to "be able to send their children to school". These findings can be explained in part by the phenomenon of attrition of preferences or self-adjusted aspirations in view of their limited supply in the most underprivileged countries. For example, Bamako and Ouagadougou are the least well-equipped capitals in terms of access to electricity (only some 40% of the households are connected to the network). Given that they are used to the absence of electricity in their homes (and their neighbours' homes), a large proportion of these towns' inhabitants do not see electricity as an absolute necessity.

5. See Razafindrakoto and Roubaud (2001) for more details on the different poverty approaches and the links between them.
6. The seven are: receiving treatment in the event of illness, access to water, and access to electricity, having decent housing, being able to take three meals a day, being able to send children to school, and having a stable job. We subsequently only refer to the first six items, given that we have no information about household satisfaction in terms of the integration of all of its members into the labour market.

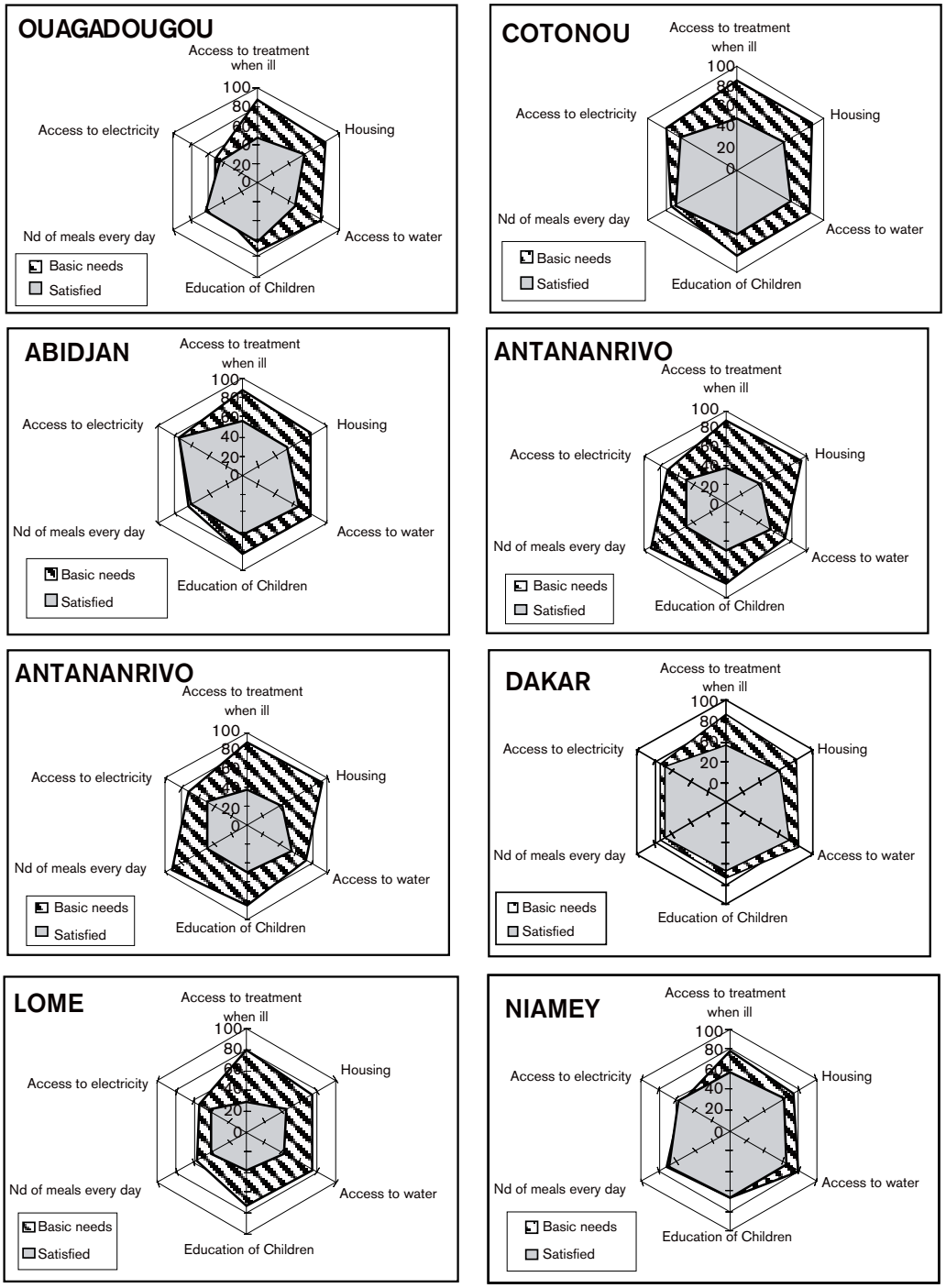
The survey compares individuals' levels of satisfaction with the level of importance placed on a given scale of hardship. Lome and Antananarivo stand out from the other cities with generally extremely low levels of satisfaction, especially when compared with the population's aspirations (Diagram 2). Bamako and Niamey are striking for their small gaps between the population's aspirations and perceptions of actual living conditions in terms of the main basic needs identified. Although the satisfaction indices are fairly low (less than or barely over 60% for certain items), the levels for each of the corresponding items near if not top the percentages of those who consider them essential.

In general, dissatisfaction with the health supply is striking in all the cities studied. As already mentioned earlier, the satisfaction indices are extremely low for Lome and Antananarivo (29% and 39%). They are also less than 50% for Ougadougou and Cotonou (at 46% and 49% respectively). They come to barely 60% in the three other cities (56% for Abidjan, 57% for Dakar and 61% for Bamako). Consequently, over one-third of the population in all the cities is dissatisfied with the existing health services.

Another more general approach to subjective poverty is to look at the household's general perception of its well-being (subjective well-being or "*happiness*"). The first analyses of this factor date back to the 1970s and the pioneering work by Easterlin (1974). This issue lies at the core of a new wave of research today with the recent tie-in made with the notion of poverty, now viewed in its broadest sense. Yet this approach based on well-being is rarely used for analyses of developing countries. Nevertheless, it sheds new and ground-breaking light on the way in which individuals perceive their living conditions.

Households' overall assessment of their well-being varies considerably from one country to the next. The proportion of those who state that they find it "hard to make ends meet" – and who can therefore be classed as poor from a subjective point of view – ranges from 25% in Bamako to 57% in Lome. The survey indeed finds a close correlation between the level of satisfaction regarding the needs previously identified as being basic and the perception of subjective well-being (Figure 1).

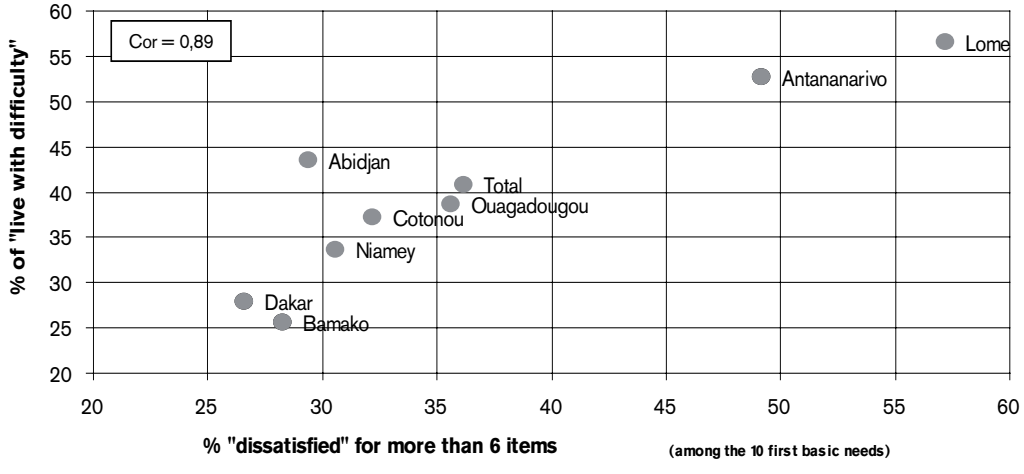
Figure 1: Level of satisfaction with needs deemed as basic



Sources: 1-2-3 Surveys, Multiple Dimensions of Poverty module, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

The inhabitants of Abidjan are an exception in this regard in that they have a fairly negative perception of their well-being (44% deem that they find it hard to make ends meet) despite a relatively high satisfaction index for the needs viewed as basic (less than 30% are dissatisfied with more than six items[7] as opposed to an average of 36% for the eight capitals; 57% for Lome and 49% for Antananarivo; Figure 2). Abidjan is hence ranked in sixth place if the population's subjective well-being alone is considered, but is in third place based on its level of satisfaction with needs identified as basic.

Figure 2: Assessment of well-being and level of satisfaction with basic needs



Sources: 1-2-3 Surveys, Multiple Dimensions of Poverty module, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

These findings make a case for the use of different approaches to analyse poverty, especially subjective approaches that consider the population's points of view. A number of different factors can influence individuals' perceptions of their living conditions. These constituent elements of well-being are not necessarily taken into account when just one approach is used or when just the most classic and normative approaches are used.

7. To measure the overall feeling of dissatisfaction, we set the threshold as being dissatisfied with six or more items (at least six needs not satisfied) of the top ten items ranked by the population as being the most essential.

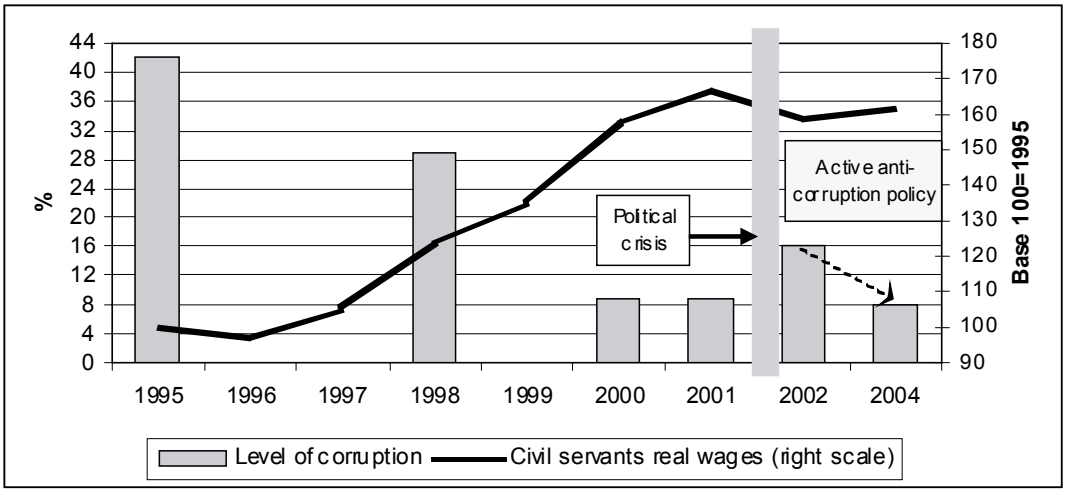
4.2 Indicators for monitoring governance

Of the analytical findings obtained using the data from the module on governance, we use mainly those regarding corruption here. This phenomenon is seen as one of the main obstacles to the efficiency of the administration and is measured by a range of indicators as part of the public service reforms. On the whole, and regardless of the city, the vast majority (over 90%) of the population believes that corruption is a major problem. Relatively fewer mention the harmful effect of the administration's politicisation (85%), absenteeism (78%) and incompetence among civil servants (69%).

Corruption is reduced by improving civil servants' wages and an active anti-corruption policy

The availability of a long time- series of data (covering nearly ten years) for the Madagascan capital means that the development of corruption can be tracked and a first assessment made of the impact of public policies addressing corruption (Figure 3). The findings reveal a steady, sharp downturn in petty corruption from 1995 to 2001 (from 42% to 10%). These figures are based on an objective indicator: the percentage of individuals who fell victim to corruption in the year preceding the survey. The empirical observation highlights a strong negative correlation between the level of corruption and civil servants' wages, which rose 50% in real terms over the 1995-2001 period (Razafindrakoto and Roubaud, 2003a). Although this relationship cannot be formally tested since the series is not long enough and other factors may also have affected the level of corruption (such as inflation and political stability), it does collaborate the presumption that the administration's performance depends positively on civil servants' wages. By way of an illustration, we observed that multiple jobholding also decreased over the same period. This finding provides food for thought for the controversial theoretical debate regarding the influence of civil servants' wage levels on corruption. It contradicts the findings of multinational cross-cutting analyses that generally find no significant link between the perception of corruption and civil servants' wages. If found to hold using larger samples, this correlation would have major implications for the reform of public services in the developing countries. This observation could partially explain the virtually systematic failure of the first generation of civil service reforms when drastic cuts were made to civil servants' wages.

Figure 3: Civil servants' wages and effect on corruption in Madagascar from 1995 to 2004



Sources: 1-2-3 Surveys, phase 1 (Labour Force) 1995-2004, MADIO, DIAL/ INSTAT, our own calculations.

Note: The corruption "module" was not included in the survey in 1996, 1997 and 1999.

The corruption figures are derived from an objective indicator (percentage of victims of corruption during the previous year).

The second point worth raising concerns the period following the political crisis in Madagascar in 2001-2002 and shows that active policies substantially reduce the amount of corruption. The level of corruption rose again in 2002 following the political crisis and the economic downturn. When the new administration came into power, the authorities placed the emphasis on transparency. The *Conseil Supérieur de Lutte Contre la Corruption* (CSLCC) was set up in 2003 to build awareness and implement specific strategies. The *Bureau Indépendant Anti-corruption* (BIANCO) was established in 2004 to monitor and apply concrete measures. The positive effect of these initiatives can already been seen. The population feels that the corruption levels has definitely gone down (the balance of opinion was +49 points in 2004 as opposed to +39 in 2003 for petty corruption; and +50 in 2004 compared with +36 in 2003 for major corruption). This perception by the capital's inhabitants is borne out by the analysis of objective indicators, which shows that the rate of corruption fell from 16% in 2003 to 8% in 2004. The weight of corruption in household budgets also fell from 3.3% in 2003 to just 1.2% of households' annual incomes in 2004.

How much can we trust the experts' opinion on corruption?

Corruption and, more broadly, governance indicators are based mainly on experts' assessments. When these experts' opinions are compared with the population's point of view and experience using the *mirror survey* (see above), it is found that the experts systematically overestimate the level of corruption suffered by the citizens (Razafindrakoto and Roubaud, 2005d). Whereas an average of 13% of the population in the eight cities said that they had been direct victims of acts of corruption over the past year[8], the experts estimated this rate at 54%. Likewise, barely 5% of the population considers accepting a bribe in the exercise of their duties to be acceptable behaviour (Figure 4). The experts reckon this proportion to be 32%. On the whole, the experts have a much more negative view of the situation than the population.

This huge overestimation of actual corruption levels would be a lesser evil if it were consistent across the board. Yet major disparities in the relative ranking of the countries show that this is far from being the case. For example, the relatively positive image that the experts have of Burkina Faso (*the country of honest men*) – with the lowest occurrence of petty corruption in the *mirror survey* and the lowest percentage of experts deeming corruption to be a major problem in the country – is belied by the population's own perception and actual experiences. Conversely, Togo has a significantly lower level of daily corruption than the regional average, but is ranked the worst offender by the experts.

In fact, there is no correlation between the two variables measuring the rate of corruption (the first estimated by the experts and the second based on population surveys): the correlation coefficient, albeit not significant, is even negative (-0.19). However, the mirror survey findings are correlated with the indicators published in the international databases. For example, the correlation between the frequency of corruption as based on the mirror survey and the "control of corruption" indicator built by Kaufmann, Kraay and Zoido-Lobaton (KKZ) for 2002 is -0.52. This makes for a positive link, since this indicator falls as corruption rises. [9] On the other hand, the correlation between the real rate of corruption and the KKZ indicator is 0.48 (and therefore in the wrong direction), but not significant.

8. See Razafindrakoto and Roubaud (2004) for a detailed analysis of the profile of victims of corruption.
9. The calculation of the Spearman coefficient of rank correlation produces similar findings: 0.02 between the mirror survey data and the population survey data; -0.50 between the findings of the mirror survey and the indicator from the base by Kaufmann et al. (2005).

Figure 4: Deviations between the real frequency of petty corruption and the experts' perceptions in French-speaking Africa

Sources: 1-2-3 Surveys, Governance module, 2001/2003, National Statistical Institutes, AFRISTAT, DIAL (35,594 persons interviewed; 4,500 on average in each country); Mirror survey (246 experts surveyed; 30 experts on average in each country), DIAL, our own calculations.

These observations raise doubts about the reliability of the expert-based data, which are nevertheless widely used by donors to allocate official development assistance in particular. Admittedly, this finding is limited to petty corruption and the eight countries studied. It could reasonably be argued that it is precisely in these countries lacking in information that the perception indices should be furthest from the reality. Yet the question clearly stands as to what exactly the perception indicators based on these surveys measure. Our findings in no way undermine the relevance of these types of indicators since they reflect a fairly commonly held perception of corruption, even if this perception does not reflect reality. This said, if corruption phenomena are to be understood in all their complexity, these indicators should be combined with a new generation of indicators based on objective measurements.

Creating broad-based coalitions to reform the administration: a massive consensus for an incentive/sanctions system

A string of reforms has been implemented to solve the public administration's structural dysfunctions, but to little avail despite the population's clear and largely shared message to improve the supply of public services. The reforms should operate on two fronts at once and comprise two types of measures: measures to increase government officials' productivity

and measures to raise the number of civil servants to cover basic needs better.

There is a real consensus to set up an incentive/sanctions system (Table 5). An average of 93% of each city's inhabitants are in favour of merit-based remuneration or performance pay. They even go further when it comes to coercive measures since 82% would like to see penalties introduced for civil servants who do not do their job properly, without ruling out the possibility of their being dismissed in the event of serious misconduct. In addition, over four in five individuals (82%) support the idea of promoting decentralisation to make the administration more user-friendly for the taxpayer. Note that decentralisation does not just affect administrative governance, but can also have political virtues in terms of local democracy.

This consensus prevails in all the cities, with certain marginal local particularities. In Dakar, there is support for each of the three measures with an approval rate of over nine in ten inhabitants. About 98% inhabitants approve the principle of performance pay. Although there is general support overall for the promotion of the merit-based principle, the desire to see strict sanctions applied (dismissal) in the event of serious misconduct is less uniform. Interestingly enough, there is most doubt in this regard in the countries with the most authoritarian regimes (Togo and, to a lesser extent, Burkina Faso). The citizens of these countries may be scared of seeing what is deemed a fair principle diverted in practice from its original intent by misuse and possibly political use.

Support for decentralisation also varies from one country to the next. Paradoxically, support is weakest in Niger and especially in Mali where the process is one of the most advanced. It is as if the demand for decentralisation were extremely strong across the board, yet , in the countries where steps had been taken to introduce decentralisation and its negative effects had started to come to light, support for this type of reform was becoming more circumspect (while remaining largely positive).

Table 5: Measures to improve the administration's efficiency by country

%	West Africa							Mada	Total
Think that the following measures could improve public service quality/ efficiency	**Cotonou**	**Ouaga-dougou**	**Abidjan**	**Bamako**	**Niamey**	**Dakar**	**Lome**	**Antana-narivo**	
1.- Performance pay	85.0	91.6	96.2	89.5	94.0	98.2	95.7	92.5	92.9
2.- Dismiss civil servants for misconduct	83.7	74.6	82.6	84.5	82.5	93.0	68.9	87.7	82.2
3.- Promote decentralisation	87.6	78.3	96.7	67.7	64.4	90.5	87.6	80.8	81.8

Sources: 1-2-3 Surveys, Governance module, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

Although there is nothing new about these reforms, what is worth noting here is the massive

support of all social groups for their principles (Table 6). For example, there is nothing to distinguish the poor from the other groups when it comes to the measures to be taken to make the civil service more efficient. What is even more interesting is the fact that almost as many civil servants support such measures themselves. They are almost as positive about some of the most repressive measures. "Only" 80% (as opposed to 82% for the population as a whole) are in favour of severe sanctions and even dismissal for unscrupulous civil servants, while 89% (compared with 93%) support performance-based wages. The civil servants, who would normally be expected to be the most hostile to this type of reform, and those with the most to lose (union members, seniors and the least skilled) are barely less convinced of the merits of these measures.

These findings show that civil servants, who are often suspected of refusing change by adamantly maintaining their positions and holding onto their acquired advantages, should not hinder the administration's reform. More broadly speaking, the survey shows the possibility of forming coalitions comprising the vast majority of the population in favour of measures reputed to be hard to implement.

Table 6: Support for measures to improve the administration's efficiency by income levels

Think that the following measures could improve public service quality/efficiency	Total	Civil servants	Per capital income quartiles			
			1st quartile	2nd quartile	3rd quartile	4th quartile
1.- Performance pay	92.9	89.2	93.1	92.5	93.1	92.8
2.- Sanction/dismiss civil servants for misconduct	82.2	80.4	81.2	82.3	82.1	83.1
3.- Promote decentralisation	81.8	87.3	81.6	80.7	80.4	84.6

Sources: 1-2-3 Surveys, Governance module, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

4.3 Democracy: an evaluation of how well it works and the population's aspirations

The 1-2-3 Surveys Democracy module provides some extremely useful information for the consolidation of the process embarked upon in many of the continent's countries at the beginning of the 1990s. In particular, the findings show that Africans, and especially the poor, have massively embraced the principles of democracy contrary to preconceived ideas and despite the huge and varying national breaches in the respect of certain civil and political rights – freedom of speech, transparent elections and especially equality before the law.

Democracy is massively embraced by rich and poor alike

When asked if they support democracy, an average 87% of each city's inhabitants say they are in favour of this type of political system. Nearly half (49%) say they are "very much in

favour of democracy" while 38% are simply "in favour of democracy". This leaves less than 15% against democracy. This general finding holds true for each country. Togo, an outpost, is worth highlighting from this point of view given the country's current political situation. It is among the inhabitants of Lome that the highest percentage of people expressing an unreserved hankering for democracy is found, with over 63% "very much in favour of democracy".

Not only does support for democracy is in general , loud and clear, but this type of political system is more appreciated by far than any other form of government (Table 7). Three other types of political systems in addition to democracy were put forward for the population's consideration: they were all largely rejected. The people showed themselves to be fundamentally opposed to any form of authoritarian regime, whether headed by a "strong man" or by the army. Less than one in five adults saw these regimes in a positive light (18% for the "strong man" hypothesis and 14% for a military regime). Neither did the cities' inhabitants want experts, rather than a democratically elected government, to decide what is right for the country. Although 35% were prepared to accept this type of leadership, this choice came far behind democracy, which picked up over 86% of the votes.

Table 7: Assessment of the different forms of political system by income levels

Opinion of the different political systems:	Total	Per capita income quartiles			
		1st quartile	2nd quartile	3rd quartile	4th quartile
A. Have a strong man as leader	18.2	19.6	18.9	18.0	16.3
B. The army governs the country	14.4	13.7	15.6	15.2	12.3
C. The experts decide what is good for the country	34.7	35.6	33.9	35.8	33.2
D. Have a democratic political system	86.2	87.5	85.7	86.3	87.2
The shortcomings of democracy:				31.2	
A. The economy does not work well in a democracy	31.3	32.9	32.5	34.5	28.3
B. Democracies are unable to maintain order	34.3	35.2	35.4	47.3	32.1
C. Democracies find it hard to make decisions	47.2	47.0	47.9	80.0	47.1
D. Democracy is better than the other forms of government	80.9	81.3	80.1		82.4

Sources: 1-2-3 Surveys, Democracy module, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

This massive support for democracy does not mean that the population sees it through rose-coloured glasses. The people also acknowledge that it has a certain number of shortcomings. For example, 31% state that the economic system does not work well in a democracy. Over one-third thinks that democracies have problems maintaining order. And nearly half consider that democracies find it hard to make decisions due to conflicts of interest that can arise between different social classes and lobby groups without being able to be solved in an authoritarian manner. Yet at the end of the day, these shortcomings are minor compared with the advantages that democracy can bring. Four in five people are convinced that, all things considered, compared with other types of political systems, democracy – understood as a political process for appointing leaders via the ballot box – is the best system of government.

These reservations about the democratic system are found a little more among the poorest populations. Some 20% and 14% respectively of people in the 1st quartile would not be against the army or a strong man having the power, as opposed to 16% and 12% for the richest quartile. A total of 35% of the poorest individuals, as opposed to 32% of the richest, feel that democracy is unable to maintain order. Yet the deviations are small and statistically insignificant, and the poorest individuals, like the rest of the population, massively prefer democracy despite its drawbacks. The poor even score higher than average (88% versus 86%) in preferring a democratic system. The poor's support for democratisation is borne out by detailed econometric analyses (Razafindrakoto and Roubaud, 2003b and 2005a). These findings contradict the theory that the poor's own values and economic situation make them recalcitrant about the establishment of democratic regimes.

Is democracy a Western concept?

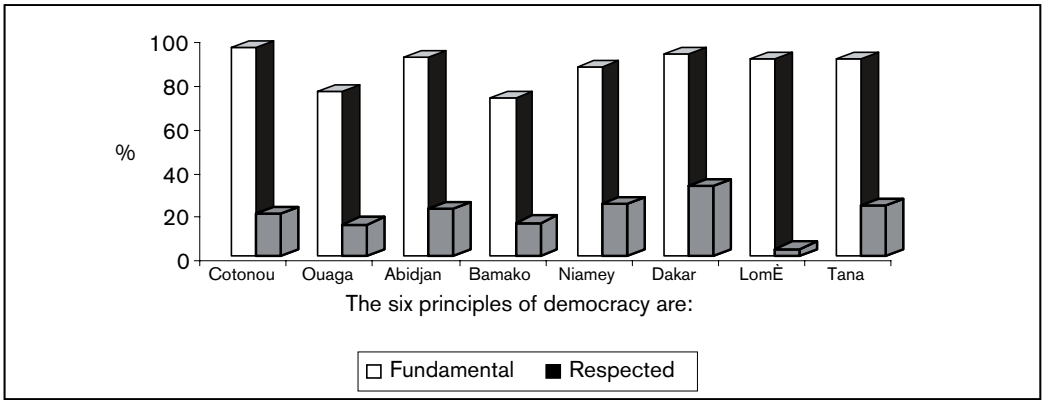
What hides behind the word "democracy"? This question is key in that an entire school of thought based on culturalist theories considers that democracy is a Western value and that it means something different in other historical and cultural contexts. So a definition is needed here as to what "democracy" means to the people of the region. This necessitated giving the survey respondents a list of features traditionally associated with democracy and asking them if they considered them to be integral to this notion.

The finding was unequivocal: the region's populations have the same idea of democracy as that which prevails in historical democracies. This suggests that there is a Universalist concept of democracy in both Africa and the North. Approximately 95% of the respondents considered all six of the elements on the list to be essential. They felt that a democracy should essentially guarantee the holding of "free and transparent elections", "freedom of speech and the press" and "political freedom (choice of political party)" as well as "equality before the law", "freedom of worship" and "freedom to travel". If all six of the characteristics are put together, 86% of the population felt that they are all essential to democracy. This consensus regarding the definition of democracy was borne out in all the cities regardless of the groups' standards of living (poor or rich). Over 85% of the population everywhere and in all the per capita income quartiles considered that each of the six properties was fundamental for democracy.

An assessment of the effort required to consolidate democracy

A comparison of the more or less fundamental nature of each of the six properties selected with whether they are respected provides an idea of the main weaknesses of the democratic set-up in each country. This information can be gleaned by comparing the proportion of those who consider them all to be essential with the proportion of those who consider them all to be respected (Figure 5). The ratio is obviously the lowest in Togo and highest in Senegal, with the other countries showing fairly similar opinions from this point of view.

Figure 5: Respect for the basic principles of democracy by country

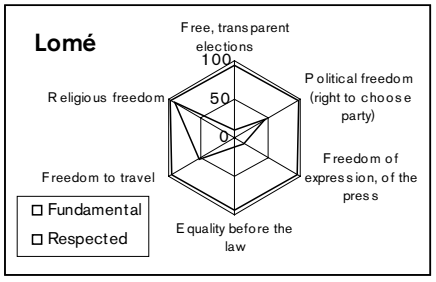


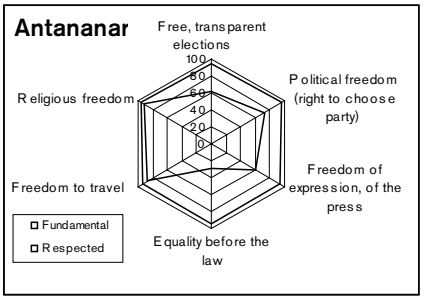
Sources: 1-2-3 Surveys, Democracy module, 2001/2003, National Statistical Institutes, AFRISTAT, DIAL, our own calculations.

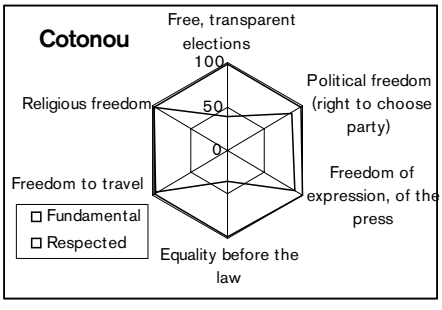
Another way of measuring and displaying the gap between the population's aspirations and whether the six essential characteristics of democracy are respected is to place them on the same diagram and compare two hexagons (Figure 6):[10] one measuring the percentage of the population that considers each of the six properties of democracy to be fundamental (the surface area of this hexagon represents the "area of aspirations" or demand) and the other measuring the percentages of the population who consider that these aspects are respected in the country (the surface area of this hexagon could be called the "actual area of democracy" or respect for democracy). Togo again reveals the same findings as before, being in a critical situation on the democratic front and standing out clearly from all the other countries. Conversely, Senegal comes out as the highest performer in terms of democratic freedoms, even if they are far from perfectly respected. This exercise hence measures how far the different countries have yet to go to consolidate democracy and points to possibilities for reforms to be undertaken.

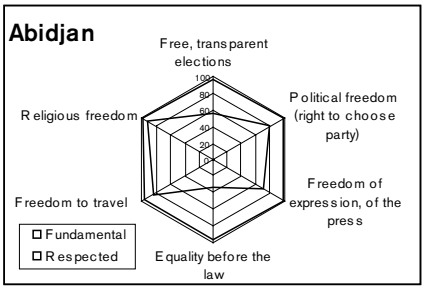
10. Here we adopt an identical approach to that previously applied to measure subjective poverty. This approach consists of comparing the importance of a need with the households' level of satisfaction.

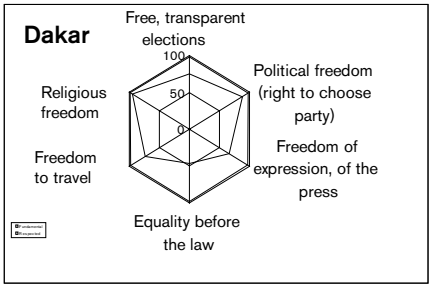
Figure 6: Perception of how well democracy works compared with aspirations

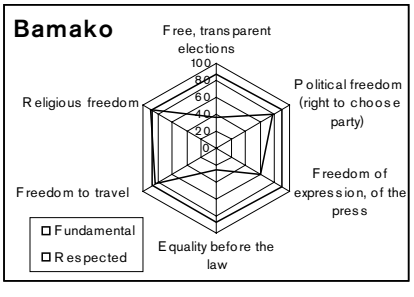


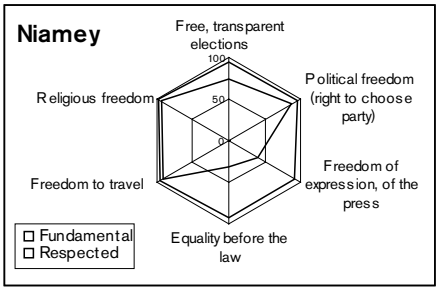


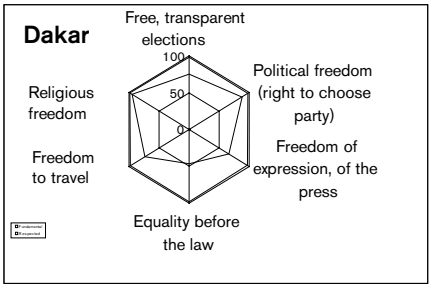












Sources: 1-2-3 Surveys, Democracy module, 2001/2003, National Statistical Institutes, AFRISTAT, DIAL, our own calculations.

4.4 Advanced indicators to prevent socio-political crises: the case of Côte d'Ivoire and Togo

Given that the survey looks at opinions covering a large range of societal issues, it shows the state of unrest that could threaten the country's social and political stability. Côte d'Ivoire and Togo are emblematic examples of this. The population in Togo is glaringly dissatisfied with all the areas covered (Table 8). Lome lags way behind in last position for both governance and, worse still, democracy. Togo appears as an incongruity in the region, explaining the Lome inhabitants' thirst for political change. The results for Côte d'Ivoire are more paradoxical (Roubaud, 2003b). At first glance, the inhabitants of Abidjan are not particularly pessimistic about the way in which they are governed. In fact, on certain points, Abidjan is among the leaders for "good governance" (authorities' will to reform, taking the population's aspirations into consideration, and growth in corruption).

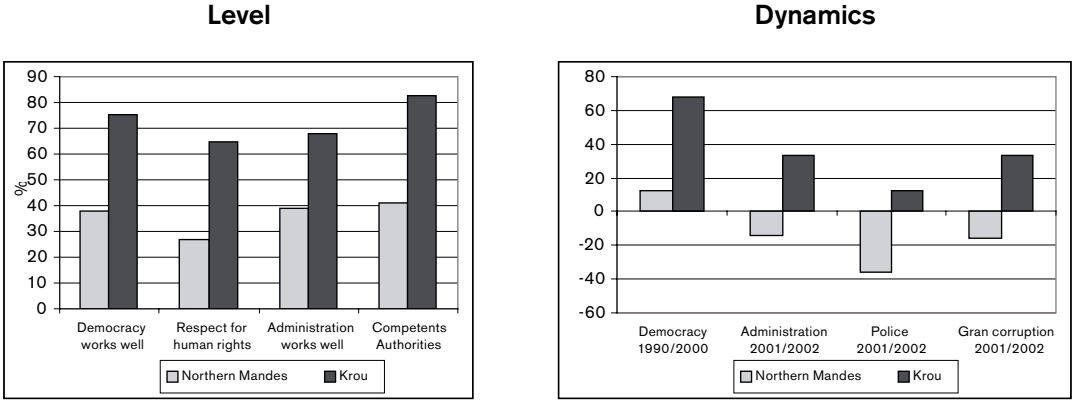
Table 8: Perception of the administration's main problems by country

%	Abidjan	Cotonou	Ouaga-dougou	Bamako	Niamey	Dakar	Antana-narivo	Lome
Democracy works well	57.4	70.5	45.8	55.8	47.9	77.4	72.7	9.8
The administration runs well	53.0	46.4	52.0	52.2	53.9	61.0	71.8	20.1
The will for reform is really there	75.3	39.0	44.1	47.8	54.3	-	90.5	11.7
The politicians take the population's aspirations into consideration	51.9	18.4	26.7	33.1	33.7	39.8	72.1	6.5
GROWTH (balance of opinion)								
The running of democracy has improved since 1990	+39 pts	+17 pts	+44 pts	+22 pts	+24 pts	+69 pts	+51 pts	-59 pts
The running of the administration has improved since 2001	+10 pts	-8 pts	-3 pts	+8 pts	+2 pts	+30 pts	+55 pts	-38 pts
Corruption has increased since 2001	+6 pts	-64 pts	-59 pts	-28 pts	-45 pts	-	+36 pts	-28 pts

Sources: 1-2-3 Surveys, Governance and Democracy modules, 2001/2003, National Statistics Institutes, AFRISTAT, DIAL, our own calculations.

Yet a closer look reveals a much more worrying diagnosis. When the findings are disaggregated based on the ethnic or religious dividing line used in the most extremist political assertions, between the "people of the North" and those of the South, the split definitely finds popular expression in Abidjan (Figure 7). The "people of the North" are extremely distrustful of the official institutions and national authorities. Moreover, they believe that the situation is getting worse, despite the official appeasement of the conflict. The survey clearly reveals a deeply divided population, wherein ethnic group is the key criterion for the focus of public opinion. The concept of Ivoirité has taken shape among the common citizens, giving rise to an internal split in the social body along dividing lines based on cultural identity tensions.

Figure 7: Indices of satisfaction with the administration and democracy by ethnic group



Sources: 1-2-3 Surveys 2002, Governance and Democracy modules, INS, Côte d'Ivoire, our own calculations.

Note: Dynamics: balance of opinion. Krous: President Gbagbo's ethnic group. Northern Mandes: ethnic group in the North of Côte d'Ivoire.

In both cases, the survey is a powerful tool for informing policies: firstly, to improve the understanding of the nature of conflicts at grass-roots level, beneath the voice of the "visible" players (warlords, politicians, journalists, etc.); secondly, and consequently, by providing the possibility to track changes in the situation in real time. These "early warning indicators" offer the means to take action before tensions degenerate into open conflict.

5. Conclusions

The experiment conducted in Africa to append modules to the household surveys shows that such an approach is not only justified from the point of view of the current main development policy guidelines, but that it can also be implemented in practice in the wide variety of political and institutional contexts found in the developing countries. These modules have technical properties that satisfy the conditions required to be incorporated into an efficient national statistical data collection system: reliability of the information provided, pertinence of the indicators for policy definition and monitoring, and ownership of the tool by the local institutions. There are hence two advantages to tracking governance, democracy and citizen

participation indicators. Public policies, such as those designed to make the public institutions more efficient and reduce the frequency of corruption, can be monitored and assessed. Secondly, time series can be built to address the causal relations between phenomena and consequently identify the most efficient policy instruments, as illustrated by the Madagascan case in terms of the reforms to be introduced to reduce corruption.

This pilot experiment opens up a number of important prospects. In the very short term, it builds on the existing databases by producing a certain number of analyses: the main findings of the surveys designed to be widely disseminated on the ground (at national level, but also at regional level when the survey results so permit); in-depth policy-oriented analyses looking at the definition, monitoring and evaluation of policies, and also academic analyses. In the medium term, the aim is to improve and consolidate the method. Firstly, the survey should be repeated in other geographic areas (inclusion of new countries) and especially carried out over time. The launch of time series (already underway in Madagascar and Mali) will lay the foundations for a fully-fledged system to track governance and democracy indicators. It will also test the robustness of the indicators. Secondly, in terms of policy processes, the methods for institutionalising this mechanism within the official statistical data systems should be improved. Such a programme should give rise to these types of surveys and indicators being systematically included in the national development strategy monitoring and assessment systems. In general , it will enable international recommendations to be formulated for measuring governance and democracy through surveys, especially as part of National Strategies for the development of Statistics promoted by PARIS21 (2004) and backed by the United Nations.

In addition to their specific interest for each country and the possibilities of South-South cooperation, such statistical surveys on governance and democracy finally make it reasonably feasible, for the first time, to hope that methodological transfers will not take the traditional road from North to South, but will travel from South to North. To date, only a few NSIs in the developed countries have taken steps down this road. Granted, a certain number of innovative surveys have been conducted in this field (see, for example, the French NSI recent work on the multiple dimensions of poverty, social exclusion, electoral participation and political choices; INSEE, 1997 and 2005). Yet the official statistical information mechanisms are still holding their traditional course, focusing mainly on economic and social statistics. Nonetheless, the reasons for and merits of the approach presented here are no less relevant to

the North than the South. A good example of the judiciousness of this subject can be found by looking at the recent debate surrounding the referendum on the European Constitution, which covered a combination of economic policy lines, governance, human rights and democracy – in short, different aspects involving society's choices. These are all good reasons for progressing down this road, wherein the expertise acquired by statisticians in the developing countries could be usefully harnessed by their counterparts in the North.[11]

References

Amegashie F., Brilleau A., Coulibaly S., Koriko O., Ouédraogo E., Roubaud F. and Torelli C. (2005), "La conception et la mise en œuvre des enquêtes 1-2-3 en UEMOA : les enseignements méthodologiques", Statéco, No.99, pp. 21-41.

Bratton M., Mattes R. and Gyimah-Boadi E. (2005), Public Opinion, Democracy, and Market Reform in Africa, Cambridge University Press, United Kingdom.

Cling J.-P., Razafindrakoto M. and Roubaud F., (eds.) (2003), New International Poverty Reduction Strategies, London/ New York, Routledge.

Easterlin R. A. (1974), "Does Economic Growth Improve the Human Lot? Some Empirical Evidence", in P.A. David and M.W. Reder (eds.), Nations and Households in Economic Growth, p. 89-125, New-York, Academic Press.

Economic Commission for Africa (2005), Striving for Good Governance in Africa, Addis Ababa, Ethiopia.

Feng Y. (2003), Democracy, Governance, and Economic Performance: Theory and Evidence, The MIT Press, Cambridge, London.

Inglehart R. (1997), Modernization and Postmodernization. Cultural, economic and political change in 43 societies, Princeton University Press, Princeton.

Inglehart R. and Welzel C. (2005), Modernization, Cultural Change and Democracy: The Human Development Sequence, New York and Cambridge, Cambridge University Press.

11. By way of comparison, a parallel could be drawn with the measurement of the informal sector. Although the methodologies (two-phase surveys) were first developed in the South, as were the modules presented here, the possibilities of applying them in the North remain limited in that the weight of the informal sector is marginal (except maybe in certain French overseas départements and territories). This is clearly not the case when it comes to the issues of governance and democracy.

INSEE (1997), "Mesurer la pauvreté aujourd'hui", Economie et Statistique, No.308-309-310, Special issue.

INSEE (2005), "Les approches de la pauvreté à l'épreuve des comparaisons internationales", Economie et Statistique, No.383-384-385, Special issue.

Kaufmann D., Kraay A., and Mastruzzi M. (2005), "Governance Matters IV: Governance Indicators for 1996–2004", The World Bank, May.

Narayan D., Chambers R., Shah M.K. and Petesch P. (2000), Crying out for Change (Voices of the Poor, Volume 2), New-York: Oxford University Press (for the World Bank).

Narayan D., Patel R., Schafft K., Rademacher A. and Koch-Schulte S. (2000), Can Anyone Hear Us? Voices from 47 countries (Voices of the Poor, Volume 1), New-York: Oxford University Press (for the World Bank).

PARIS21 Secretariat (2004). A Guide to Designing a National Strategy for the Development of Statistics (NSDS). OECD, Paris, November.

Razafindrakoto M. and Roubaud F. (2005a), "Les pauvres, la démocratie et le marché à Madagascar: une analyse à partir de trois séries d'enquêtes auprès de la population malgache", Revue d'économie du développement 1/2005, pp.56-89.

Razafindrakoto M. and Roubaud F. (2005b), "Gouvernance, démocratie et lutte contre la pauvreté en Afrique : Le point de vue de la population de huit métropoles Enquêtes 1-2-3, Premiers résultats", Working Paper DIAL, DT 2005-18, 110p, Paris.

Razafindrakoto M. and Roubaud F. (2005c), "Les multiples facettes de la pauvreté dans un pays en développement: le cas de la capitale malgache", Economie et Statistique, n° 383-384-385, pp.131-155.

Razafindrakoto M. and Roubaud F. (2005d), "How far can we trust the experts' opinion on corruption? An experiment based on surveys in francophone Africa", Global Corruption Report 2005,Transparency International, Pluto Press, London / Ann Arbor, pp. 292-295.

Razafindrakoto M. and Roubaud F. (2004), "Daily corruption in French-speaking Africa", Global Corruption Report 2004, Transparency International, pp. 346-348.

Razafindrakoto, M. and Roubaud F. (2003a), "Wage and corruption: the case of Madagascar", Global Corruption Report 2003, Transparency International, pp. 292-294.

Razafindrakoto M. and Roubaud F. (2003b), "Do they really think differently? The voice of the poor through quantitative surveys", in Cling, J.-P., Razafindrakoto M. and Roubaud F. (eds.), op cit, Chapter V, pp. 126-147.

Razafindrakoto M. and Roubaud F. (1996), "Ce qu'attendent les Tananariviens de la réforme de l'Etat et de l'économie", Politique africaine, No. 61, pp.54-72.

Roubaud F. (2003a), « The MADIO project in Madagascar: objective, approach, results », InterStat n°27, September, pp.5-34.

Roubaud F. (2003b), "La crise vue d'en-bas à Abidjan: ethnicité, gouvernance et démocratie", Afrique contemporaine No. 206, Summer, pp. 57-86.

Srinivasan T.N. (2001), "Croissance et allègement de la pauvreté: les leçons tirées de l'expérience du développement", Revue d'économie du développement 1-2/2001, pp.115-168.

Sudders M. and Nahem J. (2004), Governance Indicators: A Users' Guide, EUROSTAT/The European Commission, New York, Luxembourg.

UNDP (2002), Deepening democracy in a fragmented world, Human Development Report 2002, Oxford University Press, Oxford/New York.

World Bank (2005) World Development Report 2006: Equity and Development, New York: Oxford University Press

World Bank (2002), A Sourcebook for Poverty Reduction Strategies, Volumes 1 and 2, Washington D.C.: The World Bank.

World Bank (2000), World Development Report 2000/2001: Attacking Poverty, New York: Oxford University Press.

Using Integrated Census Microdata for Evidence-based Policy Making : the IPUMS-International Global Initiative[1]

Robert McCaa[2], Albert Esteve[3], Steven Ruggles[4], and Matt Sobek[5]

Summary

Integrated census microdata constitute a new resource for social science research and policy making. The IPUMS-International project (www.ipums.org/international) is a global initiative in cooperation with national statistical authorities world-wide to anonymize, integrate and disseminate samples of census microdata. Extracts adapted to the specific research needs of each user are distributed as ASCII textfiles along with the corresponding metadata without charge via the Internet. Researchers analyze the data using their own software and hardware. This paper offers a brief over-view of the project and invites official statistical agencies in Africa to obtain additional information about participating in the IPUMS initiative by emailing the principal author of this paper. To illustrate one possible application for evidence-based policy making with respect to the Millennium Development Goals, microdata from the 2000 census of Mexico are used to measure progress toward the attainment of universal primary education and the elimination of gender inequities in access to primary education.

Keywords

Integrated census microdata, IPMUS-International, Millemium Development Goals, orphanhood, literacy.

Résumé

Les microdonnées intégrées des recensements constituent une ressource nouvelle dans les travaux de recherche et la formulation des politiques en science sociale. Le projet IPUMS-International (www.ipums.org/international) est une initiative mondiale visant à rendre anonymes et intègres, et à diffuser des échantillons de microdonnées des recensements en coopération avec les autorités statistiques nationales du monde entier. Des extraits adaptés aux besoins spécifiques de recherche de chaque utilisateur sont distribués gratuitement par Internet sous forme de fichiers ASCII avec les métadonnées correspondantes. Les chercheurs analysent les données en utilisant leurs propres logiciels et matériel informatique. Le présent article présente un bref aperçu du projet et invite les responsables des institutions statistiques officielles en Afrique à s'informer davantage sur la participation à l'initiative IPUMS en envoyant un courriel à l'auteur principal de cet article. Pour illustrer une appli-

1: A version of the paper was presented at the Uganda Statistical Society Forum, Kampala, November 19, 2005.

2: Professor of History, University of Minnesota, Minneapolis, MN 55455 USA. rmccaa@umn.edu
3: Research Scientist, Center of Demographic Studies, Autonomous University of Barcelona, aesteve@cedserver.uab.es
4: Director, University of Minnesota Population Center, and Professor of History. ruggles@pop.umn.edu
5: Research Scientist, University of Minnesota Population Center. sobek@pop.umn.edu

cation possible de la prise de décision axée sur les résultats, par rapport aux Objectifs du Millénaire pour le Développement, des micro-données du recensement de l'année 2000 du Mexique ont été utilisées pour mesurer les progrès de réalisation de l'objectif d'éducation primaire universelle pour tous et l'élimination des inégalités liées au genre dans l'accès à l'éducation primaire.

1. Census microdata and the IPUMS-International integration initiative.

Census microdata are the individual responses to census questionnaires recorded in computerized form as numeric or alphabetic codes. The data include such mundane characteristics as age, sex, marital condition, relationship to head, migration, education, occupation, etc. Often the datasets include records for families, households and dwellings as well as for individuals. Over the past half century most of the major statistical agencies have prepared census microdata files for analysis by staff and, in many cases, by external researchers. Before the microcomputer revolution of recent years, the computational resources to analyze census microdata were the exclusive preserve of only the official statistical authorities, large universities or well endowed research institutes. Now, with the ever-expanding power of microcomputers, analysis of large census microdata files is readily performed by ordinary researchers and, increasingly, even by their students.

Today, census microdata are widely used by researchers and policy makers in the developed countries, but are relatively little used elsewhere. This gap is about to shrink, thanks, on the one hand, to the IPUMS-International global initiative (https://www.ipums.org/international) led by the University of Minnesota Population Center and, on the other, to a policy revolution by statistical authorities in the developing world, which are increasingly recognizing census microdata as statistical products to be disseminated along with conventional publications. A good example of this revolution is the dissemination policy of the Central Statistical Agency of the Federal Democratic Republic of Ethiopia, which in 2005 began to distribute a wide variety of microdata products on CD and from its website (http://www.csa.gov.et).

In the case of Africa, beginning in the 1990s, the African Census Analysis Project (www.acap.upenn.edu) blazed a path, methodically assembling a collection of microdata from some 25 countries for a total of more than 45 censuses (Zuberi 2005). The ACAP repository offers a trove of census data, much of it recovered from old computer tapes. A growing number of researchers and graduate students in residence at the University of Pennsylvania are exploiting these materials, primarily for academic research. A good example of the fruits of the initiative is the recently published book entitled "The Demography of South Africa" in collaboration with Statistics South Africa and based on a ten percent sample of the 1996 census (Zuberi, Sibanda and Udjo 2005).

Meanwhile, as of March 2006, IPUMS has become the largest repository of census microdata in the world with the official statistical authorities of more than 40 countries, encompassing over half of the world's population, entrusting a total of 138 censuses to the Minnesota Population Center (Table 1). The successes of ACAP and IPUMS is due in part to the increasing recognition among official statisticians that anonymized census microdata constitute statistical data products. As such, they do not violate even the most stringent laws on statistical confidentiality, or privacy. In country-after-country, close study of the legislation on statistical privacy reveals that the dissemination of anonymized microdata, with names and detailed geographical identifiers suppressed, is not prohibited by law. In the rare instance where laws are interpreted to the contrary, this is often based on a misreading of the statutes and a misunderstanding of the statistical nature of anonymized census microdata. The General Data Dissemination System (GDDS) of the International Monetary Fund is widely recognized as the gold standard with respect to issues of privacy and statistical confidentiality. Our analysis completed in 2001 revealed that census microdata samples were disseminated by 37 of the 52 member states of the GDDS (McCaa and Ruggles 2002). This change in legal interpretation as well as the understanding of the importance of making better use of the enormous amount of census data collected, coupled with both the recognition that qualified academic researchers have a need to access census microdata and the enormous advances in desktop computing power—all have led to a breakthrough in making these valuable resources available for scientific and policy research.

Table 1. Extant microdata and datasets entrusted to IPUMS-International project by country and census bold country = Memorandum of Understanding signed with Regents of the University of Minnesota

Datasets entrusted	Country	2000s	1990s	1980s	1970s	1960s
Phase I, 1999-2004 (30 datasets)						
5	Brazil ('60 recovered)	2001	1991	1980	1970	1960
1	China (only '82 'til now)	2000	1990	1982		1964
4	Colombia ('64/'73 recovered)		1993	1985	1973	1964
6	France	1999	1990	1982	1975	1968, 2
3	Kenya ('79 recovered)	1999	1989*	1979*	1969*	
4	Kenya ('80 in recovery)	2000	1990	1980	1970	1960
5	United States	2000	1990	1980	1970	1960
2	Vietnam ('89 recovered)		1999	1989	1979	
Europe (25 datasets)						
4	Austria	2001	1991	1981	1971	1961
1	Belarus		1999	1989	1979	1970
0	Bulgaria	2001	1992	1985	1975	1965
0	Czech Republic ('70 recovered)	2001	1991	1980	1970	1961
0	Germany (FR and DR)	2001m	1991m	1987, 81	1970, 71	1961
4	Greece ('71 recovered)	2001	1991	1981	1971	1961

4	Hungary ('70 recovered)	2001	1990	1980	1970	
0	Ireland	2001	1991	1981	1971	1961
2	Italy ('81 recovered)	2001	1991	1981	1971	1961
3	Netherlands ('60 recovered)	2001m			1971	1960
0	Norway	2001	1991	1981	1971	1961
0	Poland	2001		1988	1978, 70	1960
0	Portugal	2001	1991	1981	1970	1960
3	Romania ('77 recovered)	2001	1992		1977	1965
0	Russia (-1989 USSR)	2002	1994m	1989	1979	1970
0	Slovenia	2001	1991	1981		
3	Spain	2001	1991	1981	1970	1960
0	Switzerland	2000	1990	1980	1970	1960
0	Turkey	2000	1990	1980, 85	1970, 75	1960, 5
1	United Kingdom	2001	1991	1981	1971	1961
North America and the Caribbean (18 datasets)						
3	Canada	2001	1991, 96	1981, 86	1971, 76	1961, 6
4	Costa Rica	2000		1984	1973	1963
0	Dominican Republic	2003	1993	1981	1970	1960
2	El Salvador		1992		1971	1961
0	Guatemala	2003	1994	1981	1973	1964
0	Honduras	2000		1988	1974	1961
0	Jamaica	2001	1991	1982	1970	1960
0	Nicaragua	2005	1995		1971	1963
5	Panama	2000	1990	1980	1970	1960
4	Puerto Rico	2000	1990	1980	1970	1960
South America (29 datasets)						
1	Argentina	2001	1991	1980	1970	1960
3	Bolivia	2001	1992		1976	
5	Chile	2002	1992	1982	1970	1960
5	Ecuador	2001	1990	1982	1974	1962
5	Paraguay	2002	1992	1982	1972	1962
1	Peru ('81 in recovery)		1993	1981	1972	1961
4	Uruguay ('63 recovered)		1996	1985	1975	1963
5	Venezuela	2001	1990	1981	1971	1961
Africa (11 datasets; includes countries where proposed partnership is under consideration, February 2006)						
0	Angola			1984	1970	1960
0	Burkina Faso		1996	1985*	1975	
0	Cameroon			1987*	1976*	
0	Central African Republic	2003		1988*	1975	1960
0	Chad		1993*			
0	Comoros	2003	1991	1980		1966
2	Egypt		1996	1986, 81	1976	1964
0	Ethiopia		1994	1981		

0	Gambia, The	2003	1993*	1983*	1973*	1963
1	Ghana	2000		1984*	1970*	
0	Guinea, Conakry		1996*	1983*		1960
0	Lesotho		1996*	1986*	1976	1966
0	Liberia			1984	1974*	
1	Madagascar		1993			
0	Malawi		1997*	1987*	1977*	1967
0	Mali		1998	1987*	1976	
0	Mauritania	2000		1988	1977	1967
0	Mauritius	2000*	1990*	1983	1972?	1962
0	Morocco	2004	1994	1982	1971	1960
0	Mozambique		1997*	1980	1970	1960
0	Niger	2001		1988*	1977	
0	Nigeria		1991*			
0	Rwanda	2001	1991			
0	Senegal	2002		1988*	1976*	
0	Seychelles	2002	1994	1987	1971 & 77	1960
0	Sierra Leone	2004		1985	1974	1963
2	South Africa	2001	1996*, 91*	1985*, 80*	1970*	1960
2	Sudan ('73 recovery underway)		1993	1983	1973*	
0	Swaziland		1997	1986*	1976	1966
0	Tanzania	2002		1988*	1978	1967
2	Uganda ('80 is incomplete)	2002	1991*	1980*		1969
0	Zambia	2000	1990*	1980*		1969
0	Zimbabwe	2002	1992	1982		1969

Year = census conducted; Bold year = microdata survive; m = micro-census;
* = archived by African Census Analysis Project, University of Pennsylvania (Zuberi 2005)

IPUMS-International initiatives are undertaken only in countries where authorization is provided by means a memorandum of understanding signed with the official statistical agency (OSA). No work is begun without prior signed authorization from the corresponding OSA. The IPUMS-International memorandum of understanding is entirely general in nature, yet it provides a legal framework for the project to proceed (Table 2). Its clauses spell out: 1) rights of ownership, 2) rights of use, 3) conditions of access, 4) restrictions of use, 5) protection of confidentiality, 6) security of data, 7) citation of publications, 8) the enforcement of violations, 9) sharing of integrated data, 10) arbitration procedures for resolving disagreements, and 11) order of precedence of documents (letter of understanding, contract, purchase order, invoice, etc.). There are no secret clauses or special considerations. All members of the consortium are treated equally. Nonetheless, the protocols are revised, indeed expanded, as modifications are suggested and approved. They do not, however, apply retroactively until ratified by the OSA. Official statistical agencies in Africa that have not yet affiliated with the project are invited to do so by emailing the principal author of this paper.

Table 2. Letter of Understanding
Integrated Public Use Microdata Series International
and **[Official Statistical Institute of Country X]**

Purpose. The purpose of this letter is to specify the terms and conditions under which metadata and microdata produced by the **[Official Statistical Institute of Country X]** shall be distributed by **Integrated Public Use Microdata Series International** of the University of Minnesota.

1. Ownership. The **[Official Statistical Institute of Country X]** is the owner and licensee of the intellectual property rights (including copyright) in the metadata and microdata of [Country X] acquired by the University of Minnesota to be distributed by **Integrated Public Use Microdata Series International**. This agreement explicitly authorizes release to the University of microdata of [Country X] that may be in the possession of third parties. The University is obligated to provide to the **[Official Statistical Institute of Country X]** timely notice of any such acquisitions and, upon request and without cost, provide copies of same.
2. Use. These data are for the exclusive purposes of teaching, scientific research and publishing, and may not be used for any other purposes without the explicit written approval, in advance, of the **[Official Statistical Institute of Country X]**.
3. Authorization. To access or obtain copies of integrated microdata of [Country X] from **Integrated Public Use Microdata Series International**, a prospective user must first submit an electronic authorization form identifying the user (i.e., principal investigator) by name, electronic address, and institution. The principal investigator must state the purpose of the proposed project and agree to abide by the regulations contained herein. Once a project is approved, a password will be issued and data may be acquired from servers or other electronic dissemination media maintained by **Integrated Public Use Microdata Series International**, the **[Official Statistical Institute of Country X]**, or other authorized distributors. Once approved, the user is licensed to acquire integrated metadata and microdata of [Country X] from **Integrated Public Use Microdata Series International** or other authorized distributors. No titles or other rights are conveyed to the user.
4. Restriction. Users are prohibited from using data acquired from the **Integrated Public Use Microdata Series International** or other authorized distributors in the pursuit of any commercial or income-generating venture either privately, or otherwise.
5. Confidentiality. Users will maintain the absolute confidentiality of persons and households. Any attempt to ascertain the identity of a person, family, household, dwelling, organization, business or other entity from the microdata is strictly prohibited. Alleging that a person or any other entity has been identified in these data is also prohibited.
6. Security. Users will implement security measures to prevent unauthorized access to microdata acquired from **Integrated Public Use Microdata Series International** or its partners.
7. Publication. The publishing of data and analysis resulting from research using metadata or microdata of [Country X] is permitted in communications such as scholarly papers, journals and the like. The authors of these communications are required to cite **[Official Statistical Institute of Country X] and Integrated Public Use Microdata Series International** as the sources of the data of [Country X], and to indicate that the results and views expressed are those of the author/user.
8. Violations. Violation of the user license may lead to professional censure, loss of employment, and/or civil prosecution. The University of Minnesota, national and international scientific organizations, and the [Official Statistical Institute of Country X] will assist in the enforcement of provisions of this accord.
9. Sharing. **Integrated Public Use Microdata Series International** will provide electronic copies to the **[Official Statistical Institute of Country X]** of documentation and data related to its integrated microdata as well as timely reports of authorized users.
10. Jurisdiction. Disagreements which may arise shall be settled by means of conciliation, transaction and friendly composition. Should a settlement by these means prove impossible, a Tribunal of Settlement shall be convened which will rule upon the matter under law. This Tribunal shall be composed of an arbitrator, which shall be selected by the ICC International Court of Arbitration. This agreement shall be governed by, and construed in accordance with, generally accepted principles of International Law.
11. Order of Precedence. In the event of a conflict between a term or condition of this Letter of Understanding and a term or condition of any Contract, to which this Letter of Understanding is attached, the term or condition in this Letter of Understanding shall prevail.

Date: _____
Signed: _____
Regents of the University of Minnesota
By: Kevin J. McKoskey, Sponsored Projects Administration
Date: _____
Signed: _____
Rev. Jan. 27, 2005

IPUMS-International Letter of Understanding page 1 of 1 Rev. Jan. 27, 2005

Many statistical agencies cooperate in the project because little commitment of human resources is required and the project pays a standard fee to compensate for the marginal costs of preparing the microdata and documentation. Upon receipt of official invoice, the National Science Foundation of the United States authorizes the Minnesota Population Center (MPC)

to pay US$1,000 per census for microdata, documentation and non-exclusive rights to dissemination. For datasets with more than one million person records, the fee is increased to US$5,000.

The IPUMS has two goals: first, to preserve census microdata and, second, to make anonymized, integrated sample extracts available to researchers and policy analysts free of charge. Data recovery is required for all but the most recent datasets. The recovery of data from old tapes is a challenging undertaking for even the most technically skilled cyber sleuths. The MPC does not recover data. Instead the project pays costs of data recovery, relying on the technical skills and widely recognized talents of the United Nations Demographic Center for Latin America and the Caribbean (CELADE) or, where more convenient, a specialized data recovery firm. Most of the datasets for censuses from the 1960s or 1970s were recovered in this way. For example, in the case of the 1979 census microdata of Kenya, in addition to the five percent national sample held by ACAP, approximately two-thirds of the person records (9,781,690) were recovered by a commercial firm at a cost of less than $1,000. The project's most recent success was the 1977 census of Romania, where 97.2% of the person records were recovered by the same firm.

To make census microdata useful for research they must be thoroughly documented and integrated. Integrating census data is not a new idea. First proposed in 1872 at the International Statistics Congress held in St. Petersburg, little progress was made until the last half of the twentieth century. One of the signal achievements of the United Nations Statistics Division has been in the international harmonization of census concepts from the enumeration form to the publication of final tables. While incomplete, the effort has enjoyed widespread support by statistical agencies around the globe. Beginning in 1991, the IPUMS-USA project has worked to harmonize census data for the United States for the period since 1850 (Ruggles and Sobek 1997), and IPUMS-International has capitalized on this experience (Esteve and Sobek 2003).

The IPUMS-International project adopts uniform coding schemes, nomenclatures and classifications, based where possible on the United Nations Statistics Division's Principles and Recommendations for Population and Housing Censuses (1998) and other international standards such as:

- UNESCO (1997) - The International Standard Classification of Education (isced 1997).
- International Labor Office (1990) - International Standard Classification of Occupations (ISCO-88).
- United Nations Statistics Division (1990) - International Standard Industrial Classification of All Economic Activities (ISIC-88).

- United Nations Economic Commission for Europe (1999). Recommendations for the 2000 Censuses of Population and Housing in the ECE Region (Statistical Standards and Studies No. 49)

International census samples employ differing numeric classification systems and reconciliation of these codes is a major effort. Variables must be easy to use for comparisons across time and space. This requires that we provide the lowest common denominator of detail that is fully comparable. On the other hand, we must retain all meaningful detail in each sample, even when it is unique to a single dataset (Ruggles et. Al. 2003).

For most variables, it is impossible to construct a single uniform classification without losing information. Some samples provide far more detail than others, so the lowest common denominator of all samples inevitably loses important information. Composite coding schemes offer a solution. Similar to those used by the International Labor Organization for occupations and industries, we apply composite coding to each variable to retain all original detail, and at the same time provide comparable codes across countries and censuses. The first one or two digits of each code provides information available across all samples. The next one or two digits provide additional information available in a broad subset of samples. Finally, trailing digits provide detail only rarely available. Where a concept is not present, a zero place-holder is assigned to that digit.

Consider marital status, for example. In the IPUMS-International system, the first digit of this variable with four categories is comparable across all samples: single, married, widowed, and separated/divorced. The second digit delineates consensual unions from other forms of marriage (where possible) and distinguishes among the categories separated, divorced, and married with spouse absent. The final digit provides additional detail with the married and married-spouse-absent categories, such as polygamous marriages in Kenya (Esteve and Sobek 2003).

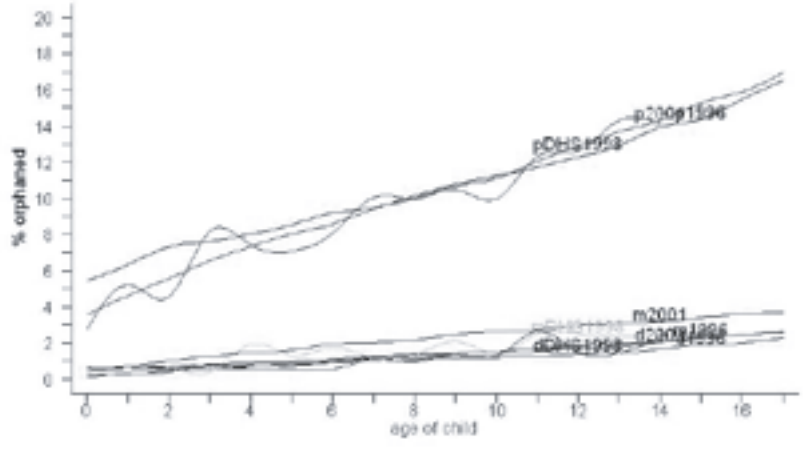
The basic goal of our harmonization efforts is to simplify use of the data while losing no meaningful information. The IPUMS harmonization strategy has proven flexible enough to accommodate the integration of data across broad spans of time (the United States for 1850-2000) and space (Brazil, China, Colombia, France, Kenya, Kenya, the United States, and Vietnam; Sobek et. al. 2002).

2. Orphanhood in Africa: an example of using evidenced-based census microdata

Before describing how to use the IPUMS, consider a practical case for disseminating microdata by examining the evidence on orphanhood. Orphans are generally defined in censuses and surveys, as individuals who, due to death, have lost one or more of their biological parents. This is operationalized in most questionnaires by requesting whether each biological parent is alive, dead, or unknown, with a distinct datum for mother and father. Answers to this question may be used not only to estimate the frequency of orphans by age, sex and a variety of other characteristics, as well as to estimate adult mortality. Unfortunately, most census publications offer only rudimentary tables in this regard, and many CD products often do not offer greater detail. With the availability of microdata ordered by households, it is possible to study the rate of orphanhood by age, sex and type (paternal, maternal or double) as well as the social and economic conditions of the households or institutions in which orphans live.

Do the census data on orphanhood make sense? It is striking that in the case of South Africa, orphanhood rates by type and age for the censuses of 1996 and 2001 compare favorably with rates from the Demographic and Health Survey of 1998 (Figure 1). The overlapping lines in Figure 1 leave little doubt that the sources are telling a similar story. Four features stand out. First, orphanhood rates at any age differ dramatically by type, with maternal orphans typically twice as frequent as double, and paternal orphans four to five times more frequent than maternal. Clearly a goodly proportion of so-called paternal orphans is due to "social" factors and not due to the death of the father. It is striking, however, that the highly-trained, well remunerated interviewers of the Demographic and Health Surveys are little better at enticing this distinction from interviewees than poorly paid, hastily trained census enumerators. The second finding which confirms the validity of the census microdata is that orphanhood rates increase monotonically by age. Third, the wavy lines characteristic of the survey reflect its small sample size, which is measured in tens of thousands compared with millions in the census. The wavy lines portray the greater effect of sampling variability in the survey as opposed to the census. Finally, there is the effect of time. It is no surprise that orphanhood rates in 1996 are lower than those for 1998, which are lower still than those for 2001. The fact that this appears in the microdata is further confirmation of their robustness. It is however notable that the rate of paternal orphanhood below age 7 according to the 1996 census is higher than for either 1998 or 2001. Further research in the microdata may reveal whether this is artificial or artifact (McCaa, Accrombessy and Diallo 2005). Meanwhile the data on orphanhood illustrate the strengths of census microdata and their coherence with such gold standards as the Demographic and Health Surveys.

Figure 1. South African orphanhood rates from microdata: striking correspondences in time and by age, type (maternal, paternal, double), and source (census and survey).



Sources: South Africa census microdata samples: 1996 and 2001 Demographic and Health Survey, 1998.

MPC Minnesota Population Center — University of Minnesota

3. Using the IPUMS-International extract system to gain access to census microdata free of cost.

The IPUMS extraction system permits the researcher to use a series of selection menus to tailor a specific dataset, from the entire database of many countries, census samples, and available variables. Since the entire database is too huge for all but the biggest computer installations, the researcher constructs an "extract", selecting only the countries, census years, sub-populations and variables that are required.

First, though, the researcher must be approved to gain access to the data. Access to the IPUMS-International database is restricted to researchers and policy makers who are qualified to use the data, have a specific research need for accessing the data, and who agree to abide by the conditions of use. Access is restricted so that the highest quality data may be made available with a minimum of confidentiality protections imposed on the data.

Application is made electronically by clicking the "Apply for Access" button, and completing the application form. The user must agree to the following conditions: that the data will:

1. not be re-distributed to others,
2. only be used for scholarly purposes,
3. not be used for commercial purposes (commercial users must contact the national statistical authorities for permission),
4. not be used to identify individuals, households or other entities (ie., that confidentiality will be respected
5. be safely secured (such as password or encrypted);
6. and be appropriately cited if publication results from the use of the data

Finally, the user and the user's institution must agree to be bound by these restrictions and may be punished if a violation occurs either deliberately or through carelessness.

The application is submitted electronically and a decision on access is usually granted within a week or less. About one-third of applicants are denied access, usually because the description of the research project does not indicate that access to the microdata is needed. If approved, the researcher uses a password to gain access to the extraction system, by clicking the "Create an Extract" button. If the project involves a group, each individual researcher must apply for access and agree to the conditions of use. If a class is involved, each student must apply for access. Unlike the access system used by the Australian Bureau of Statistics and that of the SARs system in the United Kingdom, approval is not granted to institutions. Instead, the IPUMS-International method is to entrust each individual with the responsibility for the proper use of the data. At the same time each individual's institution may be held responsible if misuse occurs.

Once approved, a data extract is designed by clicking "create an extract" from the IPUMS-International home page, entering the user name and password, and completing the extract selections on a series of screen. As a guest, it is possible to explore the entire site, but no extract will be constructed, even if the user completes all the necessary screens. Only registered users may obtain data, and the necessary password must be entered to do so.

Currently four selection screens encompass the construction of an extract:

1. sample selection (including countries and census years);
2. variable selection;
3. case selection (subpopulations, such as females aged 15-19 years in the workforce who are also heads of households); and
4. request summary.

Sample selection. The first selection screen is used to specify record structure type (flat or hierarchical) and the format of the metadata required for the statistical package to be used to analyze the data (SPSS, SAS, or Stata or any package that will read ASCII text files,

such as CSPro, ReDATAM, etc.). Note that the researcher uses his or her own software to analyze the microdata. The project does not distribute software nor does it provide statistical tools for analysis. Researchers do not need to learn any specific statistical package to analyze the integrated microdata.

Variable selection. The second screen is used to select the variables that are the object of study. The screen lists only those variables that are available for the countries and census years chosen on the sample selection screen. Variables that are present in a specific census are signified by an "X". From this screen (or from the "Variable Availability" bar on the home page, the researcher may examine the metadata for a specific variable. By clicking the variable name a window appears describing the variable and discussing comparability issues between censuses and countries. Clicking "Codes" displays a screen with metadata for the integrated codes and the corresponding labels available in specific censuses. Source documentation, including the original census questionnaires and enumerator instructions are readily available in English and the official language so that researchers may examine the exact wording and definitions. Users are urged to study the documentation carefully to make the best possible use of the data.

Case selection (optional). The IPUMS data extract system already contains over 100 million person records. Therefore a means of selecting specific cases or subpopulations is very handy to avoid transferring data that the user has no interest in analyzing. The case selection feature makes it possible to select only cases that satisfy very specific criteria, such as male heads of households aged 20-35 years, who are not in the workforce. The case selection screen makes it possible to select specific individuals or all individuals co-residing with an individual with selected characteristics. One of the most valuable enhancements of the database is the "Subsample" feature. With Subsample, the research may request any of 100 sub-samples each of which is nationally representative and preserves any stratification of the larger sample from which it was drawn. This tool may be used to test procedures, economize resources, where the research does not require large samples, or estimate variances through the replicate method.

Request summary. The last screen permits the user to confirm that the selections are correct. If not, the researcher may return to any one of the previous screens to make any desired corrections or adjustments. Once the selection criteria are correct, the request is submitted. At this point the session is over and the researcher is free to engage in other activities.

Download or Revise an extract. Meanwhile, behind the scene, the extract engine queues in the request, and then proceeds to fulfill the order. Usually in a matter of minutes, an email is sent to researcher notifying that the request is complete and that the extract is available.

A link is provided to a password-protected page for downloading the specific extract using SSL (Secure Sockets Layer) protocol. The data are encrypted during transmission using a 128-bit encryption standard, matching the level used today by the banking and other industries where security and confidentiality is essential. The researcher may then securely download the file, decompress it and proceed with the analysis using the supplied integrated metadata consisting of variable names and labels. The metadata are in ASCII format so that a researcher may readily adapt them for use by any statistical software.

The user may also revise a prior extract, retrieving the selections, making some adjustments and re-submitting the request. For example, a researcher might prepare a test dataset extracting, by means of the SUBSAMPLE case selection feature, a 1% sample from the database with selected specifications. Then once the researcher has tested and confirmed various trials, the extract specifications may be retrieved, the SUBSAMPLE case selection feature clicked off, the specifications re-submitted and be rewarded with a complete dataset with all other specifications intact.

4. Who uses IPUMS-International microdata and what do they use the data for?

The succinct answer is university professors, policy researchers and students use the data to investigate economic, demographic and social issues in comparative perspective.

In a very brief period, IPUMS-International has become an indispensable component of social science infrastructure. Hundreds of projects by scholars in more than thirty-four countries are already underway. The United States accounts for the largest number of applicants (72%), followed by Canada (4%). Switzerland, thanks to the presence of a large number of international organizations, ranks third (3%). Every continent is represented. Over 5% or researchers are working in Europe. African users, at less than 3% of the total, are under-represented at present, but this is because only 2 samples are from the region (Kenya 1989 and 1999), constituting less than 3% of the total person records in the database. With the inclusion in 2006 of two integrated census samples for South Africa followed by two for Uganda in 2007, a sharp increase in usage by African experts is to be expected.

The application does not inquire as to country of origin, citizenship or identity. Nevertheless, it is apparent from names and project descriptions, that a considerable fraction of researchers at US and Canadian universities are nationals using the IPUMS-International database to study their country of origin, including not only Brazil, Kenya, China, Colombia, Kenya and Vietnam but also France.

Table 3. 446 Research topics classified in 26 categories

Ordered by frequency				
Migration	64		Marriage	12
Schooling	57		Aging	12
Gender	30		Equality/inequality	12
Data management/development	26		Mortality	12
Teaching	37		Development	10
Health	21		Statistics	9
Fertility	21		Sampling	9
Methods	17		Demography	7
Wages	17		Brain drain/gain	6
Urbanization	15		Religion	4
Family	15		Population projection	3
Children	13		Disability	3
Poverty	12		Vital statistics evaluation	2

Research topics. Applicants are required to submit a succinct description of the proposed research to justify access to the database. I have classified the first 446 successful applications, somewhat arbitrarily, into 26 categories (Table 3). They demonstrate the wide range of research uses for which census microdata may be used.

Research topics include the living arrangements of the aged, female labor-force participation and educational attainment, regional inequality differentials, patterns of age hypergamy, international migration, relationship between divorce and family composition, between disease factors and education, and between marriage and socio-economic conditions. Most of these studies incorporate both cross-national and cross-temporal comparisons. For example, a National Academy of Sciences panel on "Transitions to Adulthood in Developing Countries" is using the data from Colombia, Kenya, Kenya, and Vietnam to analyze changing outcomes such as schooling, work, fertility, and marriage as a function of age, gender, and household characteristics. A scattering of studies propose to analyze various needs at the level of minor administrative districts for various institutions or professions, such as schools, teachers, clinics, health professionals, etc. While one might expect that these studies would be better served by access to 100% microdata, the high-density harmonized samples available from the IPUMS website make the results of such studies suggestive if not conclusive.

The following abridged and edited project description is a detailed example of a policy study which couples economic data from an official source with census microdata over four decades:

[This project proposes to] analyze the impact of public investment in [Country N] on a number of social and economic indicators over the last 40 years at the [major administrative district, MADs] level. There is evidence that despite high periods of overall growth in [Country N] very little economic convergence across [MADs] has occurred. This phenomenon has raised questions about the lack of ability (or willingness) of the central government to reduce disparities using national resources. This study tries to estimate the impact of different kinds of national investment and the role they have played over four decades of development in [Country N].

5. How census microdata may be used for local planning to attain Millennium Development Goals: schooling and literacy in Kenya.

The United Nations has an ambitious campaign, The Millennium Development Goals, which lays out a total of 8 development objectives to attain by the year 2015. The 191 member countries of the United Nations have endorsed objectives to eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality and female autonomy, reduce infant mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, guarantee the sustainability of the environment, and foment a world association for development.

For each objective, the United Nations has developed a battery of indicators to evaluate the situation and to measure improvements in each region and country of the world. Nevertheless, region or nation is not always the most appropriate scale for this type of analysis, because, often, statistics for an entire country are not representative of the situation in small areas or localities, above all in those countries where great inequalities are observed at the local level. For this reason, analysis at the local level can identify the most disadvantaged areas to organize a better distribution of assistance and resources devoted to solving the problems.

Confronted with this challenge, local statistics are called upon to play a more important role in measuring results. Population censuses, and by extension the corresponding microdata, are also a most important source for this type of analysis because they guarantee a more or less homogeneous treatment and complete territorial coverage.

To illustrate the use of census microdata, we analyze a 5% sample from the Population Census of Kenya for year 1999 obtained from the IPUMS-International web-site and address the second and third objectives of the Millennium Development Goals (MDGs): to achieve

universal primary education and promote gender equity. The analysis focuses on districts, of which there are 69 identified in the data. For each district the index proposed by the United Nations is computed. The results are show that the principal deficiences are confined to a few districts with the worst conditions.

Is primary education universal in Kenya? To respond to this question we much use three distinct indicators, following UN recommendations. First is the net rate of primary schooling. Calculation of this indicator required three variables: age, school attendance, and level of education attained. All these variables are available in the microdata for the 1999 census of Kenya. For purposes of international comparison, we use the UNICEF definition of primary school (6 years) instead of the Kenyan standard of eight (for an explanation, see www.ipums.org/international "Variables", "EDATTAIN"; note that the IPUMS variable "YRSCHOOL" facilitates comparing any definition compatible with the coding of the original source data). The rate is the result of obtaining the percentage of persons attending primary school divided by the total children of primary school age. To compute this indicator, we have taken into account children aged 6-11 years old (4.8 million in 1999). We find that 79.3% of boys and girls of primary school age are declared as attending school. Moreover, school enrollment rates of 90% or more are found in 16 districts (Homa Bay, Keiyo, Kiambu, Kirinyaga, Kisumu, Maragua, Marakwet, Migori, Muranga, Nyandaura, Nyando, Nyeri, Rachuonyo, South Kissi, Suba, and Thika), totaling 1.1 million children. Unfortunately, one million primary aged children were not attending school. Enrollment rates of less than 66% are found in 16 of the lowest enrolling district (844,000 children), and the rate is less than 25% in four districts (Wajir, Turkana, Mandera, and Garissa). Here, at a minimum, one-fifth of the total shortfall for Kenya to achieve the MDG of universal primary education is concentrated in these four districts. The dozen other districts with low attendance rates—Baringo, Isiolo, Kajiado, Kilifi, Kwale, Malindi, Marsabit, Moyale, Narok, Samburu, Tana River, and West-Pokot—account for an additional 30% of the shortfall.

According to the UNICEF standard, six years of schooling is defined as completing primary education. Since longitudinal data, which would permit tracing the evolution of educational attainment of each cohort of students, are not available, we have opted to compute, as an approximation, the percentage of children between age 13 and 15, which had completed their primary studies. Age and level of educational attainment are required to compute this indicator.

The national average from the 1999 census microdata indicates that 33.5% of Kenyan children between the ages of 13 and 15 years have completed their primary schooling. This figure is significantly distant from the 100% objective. Nevertheless, this figure is a lagging indicator, since it reflects educational accomplishments (or lack thereof) of some 5-10 years before. Districts that score poorly on this goal are precisely those where large fractions of

children are not attending school at all, and vice-versa. The list of poorly performing districts is almost identical to that for primary school attendance.

The Kenyan census form of 1999 did not contain a question on literacy, but years of schooling completed may be used as a proxy. We choose two years and computed the rate for nine year olds and above. The literacy rate for the Kenyan population as a whole aged nine years or more is 81.8%. Of the six indicators this one comes closest to the Millennium Goal target. For this reason a 75% threshold is selected. Some 18 districts fall below the threshold, including all the 16 districts with the lowest rates of primary school attendance, plus Lamu and Trans Mara. Combined they amount to only 16% of the population aged 9+ years, but they account for almost half of the illiterates in that group.

Gender equity is considered here only partially, since we treat only those aspects related to educational attendance, attainment and literacy, taking as our point of departure the statistics calculated above. In recent decades Kenya has made substantial progress in providing gender equity in schooling. Female rates of primary school attendance slightly exceed male rates in 37 of 69 districts. Discrimination against females in basic access to education is substantial in only five districts (Garissa, Kilifi, Malindi, Marsabit, and Moyale) where male attendance rates exceed those of females by nine or more percentage points. Differences in the lagging indicators of primary school completion and literacy are more noticeable. The 2009 census will reveal the degree to which these gender inequities persist. Meanwhile the more serious problem seems to be general access to education rather than gender equity.

6. Conclusions

Census microdata are exceedingly useful for analyzing populations. Because they are microdata they register the characteristics of individuals and thus can be studied by taking into account any or all of the characteristics present in the record. Because they come from a census, this is a source without paragon for demographic and social analysis due to its high density, complete national coverage, and near simultaneous execution. Moreover, if the microdata are integrated with censuses from several decades and different countries, comparative analysis in time and space opens additional avenues for research. In sum, integrated census microdata are destined to play an important role in social science research and policy making, as has been demonstrated here with the example of the Millennium Development Goals. Without doubt, the use of census microdata will have a significant, positive impact on the understanding of the social and demographic dynamics of individuals, families, and nations.

The IPUMS-International initiative is conscious of this potential, and it is for this reason that the National Science Foundation is providing sustained funding to develop a global collab-

oratory with national statistical authorities, universities, and research institutes. Institutions and researchers interested in working on this initiative to add more samples for more countries are invited to contact the authors of this paper. Researchers interested in using the microdata are invited to apply for access and use the microdata as research needs require.

References.

Esteve, A. and Sobek, M.. (2003). Challenges and Methods of International Census Harmonization. Historical Methods 36: 66-79.

Ethiopia, Democratic Federal Republic. Central Statistical Agency. (2004)."Directive No. 1/2004. Directive issues to establish procedures for accessing raw data to users,". http://www.csa.gov.et/text_files/directives.htm

Kenya. Central Bureau of Statistics (2001). 1999 Census of Population and Housing Microdata File.

McCaa, R., Accrombessy, F. D. E, and Diallo, K. (2005). "Calibrating orphanhood: results from census microdata and surveys compared with UNAIDS estimates for 3 African countries," Global Health Forum IX, Mumbai, India: Sept. 14.

McCaa, R. and Ruggles, S. (2002). The Census in Global Perspective and the Coming Microdata Revolution. In Vol. 13, Nordic Demography: Trends and Differentials, Scandinavian Population Studies, edited by J. Carling. Oslo: Unipub/Nordic Demographic Society, pp. 7-30.

Ruggles, S., Sobek, M., McCaa, R., King, M. and Levison, D. (2003). IPUMS-International. Historical Methods 36: 60-65.

Ruggles, S, and Sobek, M., et. al. (1997). Integrated Public Use Microdata Series: Version 2.0. Minneapolis: Historical Census Projects, University of Minnesota.

Sobek, M., Ruggles, S. and McCaa, R., et al. (2002). Integrated Public Use Microdata Series-International: Preliminary Version 1.0. Minneapolis: Minnesota Population Center, University of Minnesota.

Statistics South Africa (1998). 1996 Census of Population and Housing: 10% Sample of unit records.

Statistics South Africa (2003). 2001 Census of Population and Housing: 10% Sample of unit records (Version 1).

Zuberi, T., Sibanda, A. and Udjo, E., eds. (2005). The Demography of South Africa. Armonk, NY: M.E. Sharpe.

Zuberi, T. (2005). "Building regional data archives: the African Census Analysis Project (ACAP)," IUSSP XXV International Population Conference, Tours France, July 18.

Méthodologie d'élaboration des comptes économiques locaux

Adalbert Nshimyumuremyi[1]

Résumé

La montée en puissance des collectivités territoriales sub-étatiques, dans le cadre des politiques de décentralisation, met à l'ordre du jour le besoin d'un système d'information et des outils de gestion permettant à ce niveau de gouvernance d'exercer pleinement ses responsabilités. Cet article fait la synthèse de la méthodologie d'élaboration des comptes économiques locaux élaborée dans le cadre du programme ECOLOC initié en 1996 par le Programme de Développement Municipal (PDM), en collaboration avec le Secrétariat du Club du Sahel/OCDE. Cette méthodologie consiste à appliquer au niveau local les principes de comptabilité nationale (SCN 1993). La matrice de comptabilité sociale (MCS), sert de cadre de cohérence des comptes économiques locaux. Une batterie d'enquêtes statistiques au niveau local permet de fournir les données de bases nécessaires pour construire ces comptes.

Mots clés

Gouvernance locale, politiques de décentralisation, développement local, comptabilité nationale, enquêtes statistiques, matrice de comptabilité sociale.

Summary

The emergence of local authorities, in the context of decentralization policies, requires specific information systems and management tools to be put in place to effectively address relevant governance aspects. This paper is a summary of the statistical methodology aimed at compiling local economic accounts, in the framework of the ECOLOC program initiated in 1996 by the Municipal Development Program (MDP), in collaboration with the Club of Sahel Secretariat/OECD. This methodology consists in applying at the local level the principles of national accounting (1993 SNA). Social accounting matrixes (SAM), are used as coherence frameworks to local economic accounts. A statistical surveys package provides basic data required to elaborate these accounts.

1: Economiste et statisticien, l'auteur est fonctionnaire à la Banque Africaine de Développement (BAD), Département de la Recherche pour le Développement (PDRE), BP 323 – 1002 Tunis Belvédère, Tunisie. Email : a.nshimyumuremyi@afdb.org. La première version de cet article a été écrite en 2002 au moment où il était coordonnateur de la Cellule de Recherche en Micro et Macroéconomie Appliquées (CERMEA) et directeur des études à l'Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA) d'Abidjan, Côte d'Ivoire. L'auteur remercie Michel Mouyelo-Katoula, Coordonateur Régional du PCI-Afrique à la BAD pour ses commentaires sur une version ultérieure de cet article. Néanmoins il reste responsable de son contenu et les idées exprimées ne représentent pas nécessairement le point de vue ni de la BAD, ni des institutions auxquels il a été associé dans le passé.

Key words

Local governance, decentralization policies, local development, national accounts, statistical surveys, social accounting matrix.

1. Introduction

Dans leur grande majorité, les pays africains sont engagés dans le processus de décentralisation et les textes d'orientation de cette décentralisation responsabilisent les collectivités locales dans le domaine du développement local. Mais, pour que la décentralisation et le développement local se recouvrent, il faut que la gestion soit basée sur l'anticipation et la prospective. Cette nouvelle approche de la gestion locale met au premier plan la constitution d'un système d'information adapté pour le niveau local.

Actuellement, cette information locale est extrêmement pauvre. Pourtant, son amélioration substantielle n'est avant tout qu'une affaire d'organisation et de méthode. En effet, les moyens existant au plan local sont peu sollicités et mal exploités. Les circuits d'information habituels privilégient la remontée d'information du local vers le niveau central, et celui-ci ne renvoie rien ou presque en échange au niveau local (Nshimyumuremyi, 1996 ; PDM et Club du Sahel/OCDE, 2001). Les bailleurs de fonds ont pris l'habitude de créer l'information jugée nécessaire au montage des projets auxquels ils contribuent. Les consultants chargés de la préparation de ces projets sont ainsi amenés à "approximer" de façon grossière des indicateurs aussi élémentaires que la population actuelle, le taux de croissance de la ville concernée, le nombre de boutiques ou les droits de place perçus sur les marchés. Ce mode de production d'information ad hoc n'est évidemment ni efficace ni capitalisable.

Ainsi, il est impératif que la décentralisation des systèmes d'information se fasse parallèlement avec la décentralisation administrative et politique. Les responsables et les opérateurs économiques locaux doivent disposer d'une information sur la consistance de leur économie locale, ses composantes, ses leviers de commande, ses interactions, etc. La mise en place d'un système d'information local faciliterait le dialogue entre les acteurs locaux et leurs partenaires "extérieurs", ainsi que la concertation et l'adoption des stratégies de développement local plus efficace. C'est dans ce cadre de décentralisation de l'information que s'inscrivent les études de cas dénommées ECOLOC[2] entreprises depuis 1996 par le Pro-

2 Le Programme de Développement Municipal (PDM) a été créé pour accompagner et appuyer le processus de décentralisation et le renforcement des collectivités locales en Afrique de l'ouest et centrale. Avec l'appui du Club du Sahel de l'OCDE, le PDM a engagé le programme "Relance des économies locales en Afrique de l'ouest" dénommé "ECOLOC" en abrégé. Ce programme vise la relance des secteurs économiques les plus porteurs de richesse et d'emplois, l'accroissement de la fiscalité locale et des investissements et une plus grande efficacité de l'aide. Différentes études ECOLOC ont été réalisées en Afrique de l'Ouest et ont permis de tester la méthodologie développée ci-après. On peut citer notamment cinq études réalisées en Côte d'Ivoire: San Pedro (1997), Korhogo (1998), Daloa (1999), Odiénné (2000) et Bondoukou (2000) ; deux études réalisée au Mali: Sikasso (1997) et Ségou (2000) ; deux études réalisées au Burkina Faso : Bobo Dioulasso (1999) et Kaya (2000) et une étude réalisée au Sénégal à Saint-Louis (1997).

gramme de Développement Municipal (PDM), en collaboration avec le Secrétariat du Club du Sahel/OCDE.

Ce document fait la synthèse de la méthodologie d'élaboration des comptes économiques locaux. Celle-ci se base sur les différentes expériences sur le terrain dans le cadre de réalisation des études ECOLOC et des avancées statistiques dans la collecte des données et l'élaboration des comptes nationaux[3]. La première partie montre l'importance de la réalisation d'une étude ECOLOC. La deuxième partie présente le processus d'élaboration des comptes économiques locaux. La troisième partie présente les enquêtes statistiques nécessaire pour élaborer ces comptes. Enfin, la conclusion met l'accent sur la faisabilité et la pérennité de cet exercice.

2. Généralités sur l'économie locale

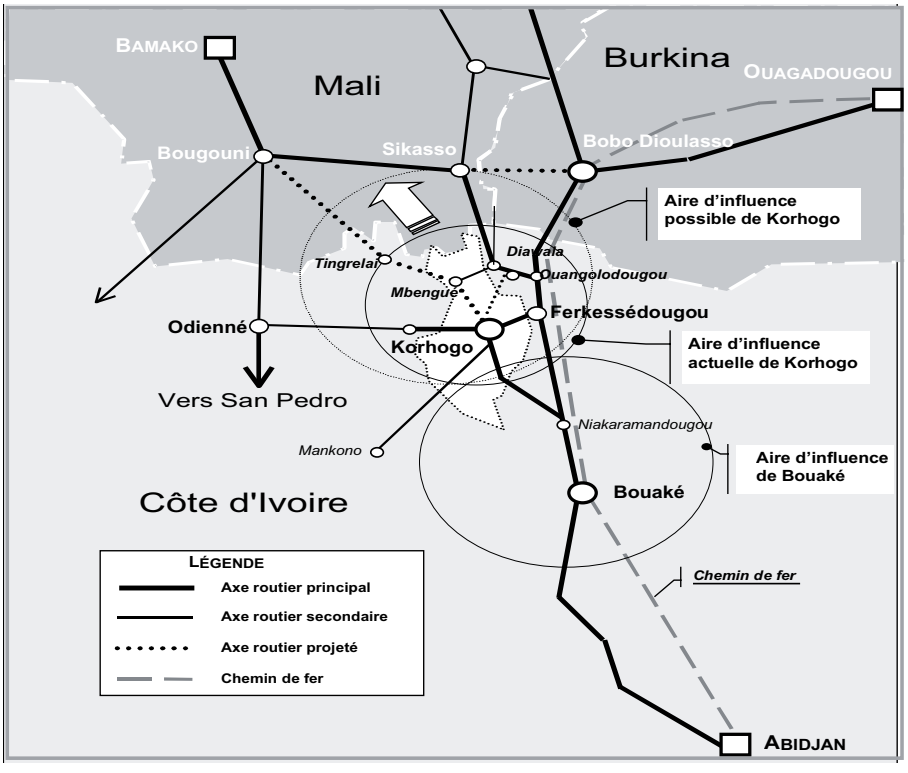
Les informations nécessaires à l'identification et à l'évaluation des actions à entreprendre en vue de promouvoir la bonne gouvernance et le développement local sont aujourd'hui largement insuffisantes, voire inexistantes. Ni les Etats, ni les bailleurs de fonds, et encore moins les responsables locaux ne sont en mesure d'apporter des éléments de réponse suffisamment précis aux questions essentielles que l'on doit se poser pour mieux investir, mieux mobiliser les ressources locales et promouvoir le développement durable.

La méconnaissance des réalités locales est l'une des principales causes de la faiblesse du dialogue social et de la gouvernance locale (PDM et Club du Sahel/OCDE, 2001). Elle sert aussi de prétexte aux responsables pour continuer à gérer les affaires locales dans la plus grande opacité et pour maintenir les prélèvements sur le patrimoine privé et sur l'activité locale à des niveaux dérisoires (de l'ordre de un à quatre pour mille respectivement). Elle est également l'une des principales causes des échecs enregistrés dans certains projets urbains et de la faible appropriation des réalisations qui en sont issues.

Dans l'étude d'une économie locale, trois axes sont ciblés: (i) Identifier et décrire le modus operandi ; (ii) Proposer un instrument de gestion de la vie économique locale ; (iii) Proposer des pistes pour une relance durable de l'économie locale.

3 Le Club du Sahel et le PDM ont lancé deux études méthodologiques. En 1999, après l'expérience tirée de la réalisation des premières études ECOLOC, ils ont confié au Centre de recherche DIAL (Sandrine Mesplé-Somps) et l'ENSEA (Adalbert Nshimyumuremyi) la mission de confectionner une méthodologie générale d'élaboration les comptes économiques locaux. Les résultats de cette étude ont été soumis à la critique des experts statisticiens et comptables nationaux lors d'un séminaire atelier organisé en 1999 à Cotonou. Ces derniers ont apprécié le travail déjà fourni et ont recommandé d'approfondir certains aspects de la méthodologie proposée. Par la suite l'ENSEA (Félicien Gashongore) et AFRISTAT (Prosper Bakiny-Yetna) ont été chargés de rédiger un manuel de procédures de la méthode d'élaboration des comptes économiques locaux.

Figure 1 : La ville de Korhogo et sa zone d'influence atouts et handicaps de la ville dans l'espace régional



2.1 Modus operandi de l'économie locale

L'*économie locale* est constituée par une ville et sa zone d'influence (en grande majorité rurale, mais aussi composée de centres urbains secondaires). Cette zone appelée aussi *hinterland*[4], reconnaît la ville comme place de marché principal. La ville dite ville principale ou ville-pôle ou ville centre, joue un rôle important dans une économie locale. Dans l'étude du fonctionnement de l'économie locale, il est capital d'analyser les interdépendances entre cette ville et sa zone d'influence (Cour et Snrech, 1998). Mais, il est souvent très difficile de faire la délimitation de l'économie locale. Les frontières retenues devraient être théoriquement celles de l'espace à l'intérieur duquel les activités de production et d'échange sont essentiellement orientées vers la ville principale (Backiny-Yetna et al, 2001). Pour faciliter la tâche, souvent, on s'intéresse aux frontières administratives (département, district, cercle, région, etc.).

4 Par définition, l'hinterland est une zone de rayonnement des échanges ou de déploiement d'un ensemble d'activités à partir d'un centre donné. Cette aire peut s'étaler au-delà de la frontière administrative de la zone étudiée. Mais, l'on ne retiendra que la partie incluse dans la zone d'étude comme hinterland, le reste faisant partie du reste du pays.

Les principales aspects de l'économie locale peuvent être synthétisées dans les fonctions suivantes :

- **se nourrir** (l'alimentation représente plus du tiers de la dépense totale des ménages) ;
- subvenir aux autres **besoins essentiels** de la population ;
- **administrer** les villes et leur zone d'influence (hinterland) et contrôler le territoire ;
- **équiper, construire** et entretenir la ville et sa zone d'influence ;
- **échanger** (exporter, importer, réexporter) des biens et services entre la ville principale et la zone d'influence rurale, les autres villes, les autres régions et le reste du monde ;
- **faire circuler l'argent** : prélever les fonds sur les ménages et les opérateurs locaux, mobiliser et redistribuer l'épargne, capter les fonds publics et privés nationaux et étrangers.
- **produire des biens et services** finaux et intermédiaires autres que ceux mentionnés ci- dessus.

Pour bien étudier une économie locale, il faut au préalable connaître la structure, les potentialités et les mécanismes de son fonctionnement. A cet effet, la méthodologie proposée permet de construire un cadre synthétique structurant, permettant de mesurer les économies locales. A partir de ce cadre, on peut alors bâtir une maquette des économies locales, et traduire cette maquette en un tableau de bord de l'économie locale, pour une meilleure assimilation par les acteurs économiques locaux. Le schéma en annexe 2 illustre la complexité des mécanismes de fonctionnement de l'économie locale.

2.2. Un instrument de gestion de l'économie locale

L'instrument d'analyse privilégié dans l'étude d'une économie locale est le tableau de bord qui réunit un minimum d'informations pertinentes portant sur le volume et les composantes, les capacités et stratégies des acteurs privés et publics de celle-ci (Mesplé-Somps et Nshimyumuremyi, 1999). C'est une mise en cohérence de plusieurs indicateurs permettant d'apprécier le fonctionnement et le suivi d'une économie locale. Son objectif est de fournir les arguments objectifs aux débats devant aboutir, à moyen et long termes, à la définition de politiques concertées pour l'avènement d'un développement durable et soutenu au niveau local.

Le volet économique (comptes économiques) est au centre de l'élaboration du tableau de bord. Les principaux agrégats économiques retenus sont similaires à ceux de la comptabilité nationale, en l'occurrence le Produit Local Brut (PLB) et le Revenu Local Brut (RLB). Le PLB mesure la valeur des biens et services produits par les unités résidentes et qui sont disponibles pour les emplois finaux (consommation, investissement, etc.). Le RLB est la somme des revenus reçus par les unités résidentes et des impôts liés à la production et

l'importation, nets de subventions. Cet agrégat qui tient compte des transferts de revenus (privés et publics) entre la zone et l'extérieur semble particulièrement adapté à la mesure des revenus circulant dans une économie locale. Toutefois, son calcul nécessite l'estimation de transferts entre les secteurs institutionnels de l'économie locale et ceux du reste du pays, données difficilement mesurables.

Comme illustré dans le tableau 1 et dans la figure 2, le PLB doit être décomposé selon les activités et les secteurs qui contribuent à sa constitution. Cela permet d'apprécier un secteur par rapport à d'autres et de prendre les décisions qui s'imposent.

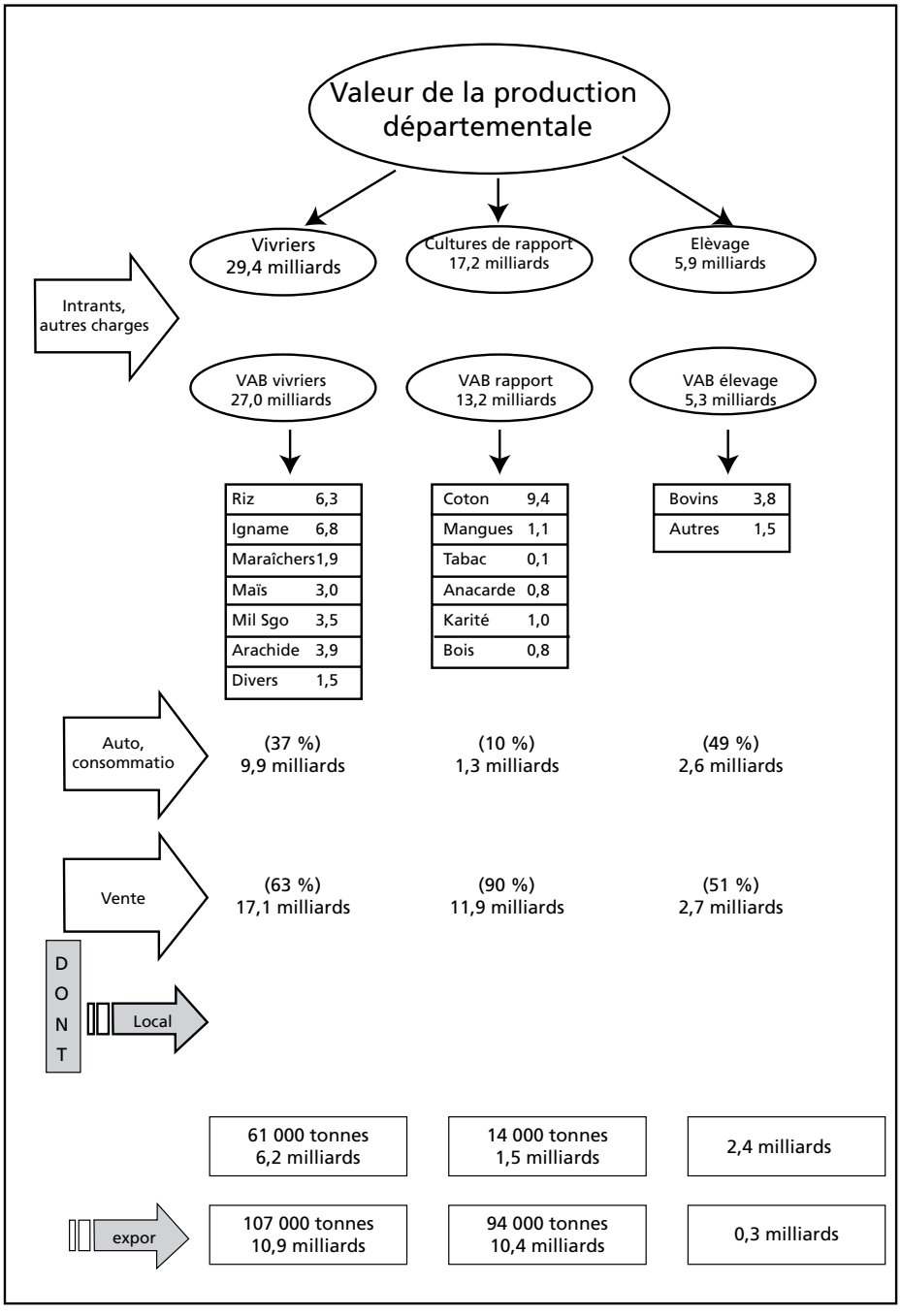
Tableau 1 : Répartition spatiale et sectorielle du Produit local brut dans le département de Daloa en 1997 (en millions, %)

	Département		Commune		Reste département	
	Montant	%	Montant	%	Montant	%
Secteur primaire	67 500	47	3 375	4	64 125	94
Vivrier	42 298	29	2 115	3	40 183	59
Café et cacao	23 760	17	1 188	2	22 572	33
Autres cultures	946	1	47	0	899	1
Elevage et pêche	496	0	25	0	471	1
Secteur secondaire	16 873	12	15 635	21	1 237	2
Transformation du bois	4 454	3	3 462	5	992	1
Autres industries	9 561	7	9 364	12	197	0
BTP	2 858	2	2 809	4	48	0
Secteur tertiaire	59 529	41	56 695	75	2 834	4

Commerce	22 778	16	21 402	28	1 376	2
Transport	11 098	8	10 619	14	478	1
Autres services	21 283	15	20 729	27	554	1
Administrations	4 371	3	3 945	5	426	1
Total PLB	**143 902**	**100**	**75 705**	**100**	**68 197**	**100**
PLB par tête Daloa	**288 194**		**438 481**		**208 764**	
PLB par tête Korhogo	**230 668**		**348 174**		**171 410**	
PLB par tête San Pedro			**840 000**			

Source : Ecoloc – Daloa 1998, Korhogo 1998, San Pedro 1997

Figure 2 : L'économie agro-pastorale du département de Korhogo (1997)
Productions et destination



Source : Ecoloc Korhogo 1998

2.3. Pistes de relance durable d'une économie locale

Une meilleure connaissance et une meilleure compréhension des rouages de l'économie locale, de ses atouts et de ses handicaps, devraient faciliter l'élaboration et l'adoption d'un cadre local de développement. Un tel cadre de référence pourrait être à la base de programmes de développement et d'investissements communaux ; il pourrait structurer les rapports entre les responsables des collectivités locales et la société civile, spécialement les opérateurs économiques locaux, et faciliter la négociation entre les acteurs locaux et leurs partenaires extérieurs : Etat, agences de coopération, coopération décentralisée, etc.

Des études ECOLOC déjà réalisées (Nshimyumuremyi, 1996 ; Cour et al., 1998 ; PDM et Club du Sahel/OCDE, 2001) ont permis de dégager les résultats suivants : (1) Les espaces locaux sont des lieux privilégiés où des efforts coordonnés de développement urbano-rural peuvent et doivent être entrepris. (2) Les économies locales sont le siège de mutations rapides. L'approche statique ou marginalisante manque de pertinence et la démarche prospective prend tout son sens. (3) Le principal problème agricole n'est pas la production mais la commercialisation et la formation des villes. (4) Dans les économies locales, le secteur moderne et le secteur informel sont quasiment à égalité en termes de création de richesse mais l'économie populaire est largement majoritaire en termes de création d'emplois et ce, durablement. (5) Les espaces locaux sont des lieux par excellence de l'apprentissage de la décentralisation et de la bonne gouvernance. La bonne gouvernance passe par le développement local et c'est le développement qui impose la saine gestion.

Quelques pistes de relance de l'économie locale ont été identifiées. Il s'agit entre autres de : (1) soutenir le système productif agricole et diversifier les sources de revenu des paysans (2) améliorer et soutenir les circuits de commercialisation à l'échelon local et régional (3) encourager la transformation des produits à l'échelon local et régional (4) susciter les initiatives orientées vers le marché local et régional, notamment celles du secteur informel (5) réorganiser et soutenir des opérateurs du secteur des BTP (6) améliorer l'accès aux services de base (7) améliorer le cadre de vie en milieu urbain (8) améliorer le niveau de fiscalisation des activités et, plus généralement, œuvrer à une décentralisation réelle par une stratégie visant à conquérir les outils financiers et politiques indispensables à l'affirmation d'une souveraineté municipale.

3. Le processus d'élaboration des comptes locaux

3.1. Le cadre méthodologique

La méthodologie proposée consiste à appliquer au niveau local les principes de comptabilité nationale, bien qu'elle s'en distingue principalement dans le fait qu'en comptabilité nationale

la consommation des ménages sert d'éléments de bouclage des comptes, alors qu'ici, c'est le compte de l'extérieur qui joue ce rôle (Mesplé-Somps S. et Nshimyumuremyi A., 1999). La consommation est obtenue à partir d'une enquête auprès des ménages.

Tableau 2 : Matrice de comptabilité sociale (forme agrégée)

	8	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Branches	Produits	Secteurs institutionnels					Facteurs de production		Accumulation			Extérieur			Total Global
			Ménages	Entreprises	Commune	Adm. Déconcentrée	Autres adm.	Travail	Capital	Ménages	Entreprises	Admin.	Hinterland	Reste pays	Etranger	
Branches		Production C(8,16)														Production C(8,30)
Produits	Consom. Interm. C(16,8)		Consommation finale C(16,17)		Consom. finale C(16,19)	Consom. finale C(16,20)	Consom. finale C(16,21)			FBCF ménages C(16,24)	FBCF entreprises C(16,25)	FBCF admin. C(16,26)	Exportation vers hinterland C(16,27)	Exportation vers reste du pays C(16,28)	Exportation vers étranger C(16,29)	Demande totale C(16,30)
Ménages			Transferts interménages C(17,17)	Indemnités d'assurance C(17,18)		Prestations sociales C(17,20)	Transferts C(17,21)	Revenu du Travail C(17,22)					Tranferts courants C(17, 27) à (C21,29)			Revenu ménages C(17,30)
Entreprises			Primes d'assurance et subventions C(18,17)	Primes, indemnités d'ass. C(18,18)	Primes d'assurance C(18,19)	Primes assur. et subv. C(18,20)	Primes d'assurance C(18,21)		Revenu du Capital C(18,23)							Revenu entreprises C(18,30)
Commune	Impôts indirects C(19,8)		Impôts sur le revenu C(19,17)	Impôts sur le revenu C(19,18)			Transferts C(19,21)									Recettes commune C(19,30)
Adm. déc.	Impôts indirects C(20,8)	Droits de douane C(20,16)	Impôts sur le revenu C(20,17)	Impôts revenu, cot. Sociales C(20,18)	Cotisations sociales C(20,19)	Cotisations sociales C(20,20)	Cotisations sociales C(20,21)									Recettes publiques C(20,30)
Autres adm.			Cotisations volontaires C(21,17)			Subventions de l'Etat C(21,20)										Recettes aut. admin. C(21,30)
Travail	Revenu du travail C(22,8)															Revenu du travail C(22,30)
Capital	Revenu du capital C(23,8)															Revenu du capital C(23,30)
Ménages			Epargne des ménages C(24,17)										Tranferts en capital C(24, 27) à (C26,29)			FBCF Ménages C(24,30)
Entreprises				Epargne des entreprises C(25,18)												FBCF Entreprises C(25,30)
Admin.					Epargne de la commune C(26,19)	Epargne de l'adm. Déc. C(26,20)	Epargne des autres adm. C(26,21)									FBCF administrations C(26,30)
Hinterland		Importations C(27,16)	Transferts C(27,17)	Transferts C(27,18)	Transferts C(27,19)	Transferts C(27,20)	Transferts C(27,21)									Recettes de l'hinterland C(27,30)
Reste pays		Importations C(28,16)	Transferts C(28,17)	Transferts C(28,18)	Transferts C(28,19)	Transferts C(28,20)	Transferts C(28,21)									Recettes du reste pays C(28,30)
RDM		Importations C(29,16)	Transferts C(29,17)	Transferts C(29,18)	Transferts C(29,19)	Transferts C(29,20)	Transferts C(29,21)									Recettes de l'étranger C(29,30)
Total Global	Production C(30,8)	Offre totale C(30,16)	Dépenses ménages C(30,17)	Dépenses entreprises C(30,18)	Budget fonct. Com. C(30,19)	Budget f. Adm. Déc. C(30,20)	Budget f. Autres adm C(30,21)	Revenu travail C(30,22)	Revenu capital C(30,23)	FBCF Ménages C(32,24)	FBCF Entreprises C(30,25)	FBCF admin. C(30,26)	Dépenses hinterland C(30,27)	Dépenses du reste pays C(30,28)	Recettes étranger C(30,29)	Total Global C(30,30)

Tableau 3 : Matrice de comptabilité sociale agrégée du département de Daloa en 1997 (Millions de francs)

N° compte		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Compte	Ménage	Entrep.	Comm.	Admin. Déconc.	Autres admin.	Branche	Produits	Travail	Capital	Accum. ménages	Accum. Entrep.	Accum. Admin.	Reste du pays	Pays Limit.	Reste Monde	Grand Total
1	Ménages	1 682	2 346		362	10			125 433					1 058	233	72	131 197
2	Entreprises									14 075							14 075
3	Commune	357			158		331										846
4	Administrations déconcentrées	3 708	1 162	70		22	4 063	26									9 051
5	Autres administrations	298												181		329	808
6	Branches							224 676									224 676
7	Produits	88 011		599	5 159	753	80 774				8 052	4 205	5 452	78 696	12 038	46 666	330 406
8	Travail						125 433										125 433
9	Capital						14 075										14 075
10	Accumulation des Ménages	9 513												- 365	- 1 096		8 052
11	Accumulation des Entreprises		2 610											1 117	80	399	4 205
12	Accumulation des Administrations			177	3 372	23								1 900			5 452
13	Reste du pays	16 828	5 252					60 482									82 562
14	Pays limitrophes	10 616	381					259									11 255
15	Reste du Monde	184	2 320					44 962									47 466
16	Grand total	131 197	14 071	846	9 051	808	224 676	330 405	125 433	14 075	8 052	4 205	5 452	82 562	11 255	47 466	1 009 575

Source : Ecoloc – Daloa, 1998

On utilise la Matrice de Comptabilité Sociale (MCS), comme cadre de cohérence des comptes économiques locaux. La MCS regroupe les éléments du Tableau d'Entrées-Sorties (TES) et le Tableau Economique d'Ensemble (TEE). Elle est formée de 6 types de comptes: les comptes des branches, les comptes d'agents institutionnels, les comptes de produits, les comptes de facteurs, les comptes d'accumulation et les comptes du reste du monde, et obéit au principe selon lequel les dépenses des uns font le revenu des autres. Elle décrit les interdépendances des secteurs de production et s'attache à retracer les relations entre la structure de la production et la distribution des revenus, les comportements d'accumulation ainsi que les échanges avec l'extérieur. Elle permet de synthétiser en un tableau unique l'ensemble des transactions réalisées entre les différents agents économiques.

3.2. Le schéma d'élaboration des comptes

L'élaboration des comptes économiques se fait en trois étapes : (i) le premier cadrage ; (ii) la confrontation des approches offre, demande et revenus; (iii) la construction de la MCS et son bouclage.

3.2.1. Le premier cadrage

Il s'agit d'une approche macro consistant à construire une première maquette de l'économie locale, à partir des données de la comptabilité nationale (Cour et Snrech, 1998 ; PDM et Club du Sahel/OCDE, 2001). Des hypothèses basées sur la structure démographique, la répartition des ressources, et les données sociales permettent de construire une ébauche de MCS[5]. Celle-ci sert de cadre de référence et révèle les points sur lesquels le travail de collecte des informations complémentaires de terrain mettra l'accent.

3.2.2. L'approche par l'offre : Les comptes de production des branches

La détermination du niveau de production des branches, produit par produit, précède et guide l'évaluation des coûts de production (Séruzier, 1996). Il s'agit dans un premier temps d'évaluer, produit par produit, les quantités physiques. La conversion des quantités en valeur aux prix de base ou aux prix au producteur se fait en second lieu. Les coûts de production

5 Un modèle démo-économique a été construite par le Club du Sahel et permet d'élaborer cette MCS de cadrage de façon systématique. Une fois les données des enquêtes disponibles le modèle permet de faire des projections et fournir l'image de l'économie locale à long terme.

doivent tenir compte du niveau de la production. On peut appliquer les coûts de production issus des comptes nationaux lorsque les informations font défaut au niveau local.

3.2.3. L'approche par la demande : Le compte des produits

Le compte des produits s'obtient en mettant en rapport l'offre en produits (production et importations) et les diverses utilisations qui en sont faites (consommation finale, consommations intermédiaires, investissements et exportations). La confrontation de ces deux informations (offre et demande) doit se faire en permanence au fur et à mesure de la construction des comptes.

3.2.4. L'approche par les revenus : Les comptes de secteurs institutionnels

Un secteur institutionnel regroupe un ensemble d'agents ou unités institutionnelles ayant une fonction économique commune. A chaque secteur institutionnel correspondent un certain nombre de branches correspondant elles-mêmes aux biens et services produits par ce secteur. Dans l'étude d'une économie locale, trois principaux secteurs institutionnels sont analysés : les ménages et les entreprises individuelles informelles, (2) les entreprises modernes et (3) les administrations.

3.2.5. Le bouclage des comptes de la MCS

Les diverses approches statistiques utilisées pour construire les comptes de branches et de secteurs institutionnels se traduisent par l'existence d'une différence entre les soldes des différents comptes. L'élaboration des différents comptes s'accompagne d'un examen systématique de la cohérence globale du système. C'est par l'équilibre des comptes des produits que l'équilibre global final de la MCS est obtenu. Lorsque l'équilibre de l'ensemble des comptes n'est pas réalisé, les variables les moins connues constituent des variables d'ajustement, et en l'occurrence, les importations et les exportations de produits ainsi que les transferts courants des ménages (Mesplé-Somps et Nshimyumuremyi, 1999).

4. Données de base et sources d'information

4.1. Données préalables

Avant d'élaborer les comptes économiques, un certain nombre d'informations sont indispensables. Il s'agit des informations permettant d'établir des clés de répartition à appliquer aux données macro-économiques issues de comptes nationaux afin d'obtenir un premier cadra-

ge de l'étude, et d'optimiser les enquêtes (stratification, élaboration du questionnaire, répartition des équipes d'agents enquêteurs, conduite des interviews, etc.):

- des données cartographiques et géographiques (carte de la région, plan des principales villes, découpage administrative, carte des îlots ou districts de recensement, superficies, climat, principales cultures),
- des données démographiques et sociologiques, des données sur l'environnement et les conditions de vie des ménages..

4.2 Les enquêtes statistiques et les interviews complémentaires

4.2.1 Catégories d'enquêtes

Les enquêtes à réaliser sont déterminées par la nature des informations nécessaires non disponibles dans les sources administratives ou documentaires. Ces enquêtes visent essentiellement à établir le niveau et la structure de la consommation des ménages, la place des secteurs agricole, moderne et informel dans la formation des revenus locaux, l'interdépendance des branches d'activité, les différences de revenus entre la ville principale et son hinterland, le niveau d'imposition des secteurs de l'économie non agricole, le niveau d'ouverture de l'économie locale ainsi que l'origine et la destination des flux de marchandises et de transferts monétaires. Le tableau 4 donne un aperçu du chronogramme et de la gestion des opérations de collecte par agent enquêteur.

Tableau 4:Schéma de collecte dans la ville principale et dans l'hinterland pour un agent enquêteur

Jour	Ménages			Activité	
				Ville principale	Hinterland
J-10 à J-3				Inventaire des points d'activité Inventaire des chantiers Prise de contact avec entreprises modernes	
J-2 à J0	Tous			Dénombrement des ménages (réalisé une fois pour toutes) Prise de contact avec entreprises modernes	Dénombrement des ménages (réalisé au plus 3 fois) Prise de contact avec entreprises modernes
J1	A1	A2	A3	Prise de contact Ménages et Entreprises modernes Module démo/emploi Carnet de relevés	Prise de contact Ménages et Entreprises modernes Module démo/emploi Dépenses quotidiennes, Carnet de rélevés
J2	B1	B2	B3		
J3	C1	C2	C3		
J4	A1	A2	A3	Prise de contact entreprises modernes	Prise de contact entreprises modernes
J5	B1	B2	B3	Dépenses quotidiennes	Dépenses quotidiennes
J6	C1	C2	C3	Dépenses rétrospectives	Dépenses rétrospectives
J7	A1	A2	A3	Prise de contact entreprises modernes	Prise de contact entreprises modernes
J8	B1	B2	B3	Dépenses quotidiennes	Dépenses quotidiennes
J9	C1	C2	C3	Module UPI	Module UPI
J10	A1	A2	A3	Dépenses quotidiennes	Enquête Grossistes du vivrier,
J11	B1	B2	B3	Enquête Moderne	Enquête Moderne
J12	C1	C2	C3	Enquête Grossistes du vivrier	Enquête agricole
J13	A1	A2	A3	Dépenses quotidiennes	
J14	B1	B2	B3	Enquête Moderne	
J15	C1	C2	C3	Enquête Grossistes du vivrier	
J16	A1	A2	A3	Dépenses quotidiennes	
J17	B1	B2	B3	Enquête Moderne	
J18	C1	C2	C3	Enquête Grossistes du vivrier	

Source : Backiny-Yetna et Gashongore, 2001
Légende
Ai : ménage visité pour la première fois le premier jour d'enquête ;
Bi : ménage visité pour la première fois le deuxième jour d'enquête
Ci : ménage visité pour la première fois le troisième jour d'enquête (i = 1 ou 2 ou 3)
Un agent enquêteur suit 9 ménages : A1, A2, A3, B1, B2, B3, C1, C2, C3.

Les informations devant être obtenues au niveau le plus fin pour permettre l'établissement des équilibres ressources-emplois des branches, les instruments de collecte sont élaborés en conséquence, en utilisant les nomenclatures internationales (Backiny-Yetna et Gashongore, 2001).

Les principales investigations à réaliser comprennent: une enquête auprès des entreprises modernes, une enquête auprès des ménages couplée avec une enquête sur le secteur informel dans le cadre d'enquêtes mixtes de type 1-2-3, une enquête agricole, un entretien avec les commerçants grossistes des produits agricoles et animaux, un entretien avec les respon-

sables des institutions de crédit et de la poste et des entretiens avec les personnes ressources, bien ciblées, susceptibles de fournir une information à caractère économique, comme les maires, les responsables de projets, les entrepreneurs, etc.

Dans la ville principale, toutes les enquêtes sont précédées d'un inventaire ou dénombrement des points d'activité afin d'avoir une première vue globale du fonctionnement de l'économie, qu'elle soit formelle ou informelle.

4.2.2 L'inventaire des points d'activité et l'enquête sur le secteur moderne

Un point d'activité est un endroit où un individu, une administration ou une entreprise exerce son activité. L'inventaire des points d'activité est effectué dans la ville principale dans l'objectif de : (1) déterminer l'effectif des points d'activité par type, (2) déterminer le volume de l'emploi dans l'économie émergée, (3) améliorer la base de sondage de l'enquête sur le secteur moderne, (4) déterminer la part de l'économie informelle émergée dans l'économie informelle totale et (5) identifier simultanément les bâtiments en cours de construction ou récemment achevés.

Néanmoins, l'inventaire des points d'activité souffre d'une défaillance fondamentale, à savoir le défaut de couverture, en ce sens qu'il ne révèle que la partie émergée de l'économie. Il ne permet pas d'estimer l'importance des activités à domicile, des activités ambulantes, des activités de nuit et des activités sans emplacement fixe par nature (Roubaud et Séruzier, 1991 ; Hussmans et al, 1990). De plus, les variations saisonnières sont ignorées du fait que le comptage se fait en un seul passage. On fait donc recours à d'autres sources pour compléter la liste des points d'activité. Par exemple, le nombre de charrettes et celui de taxis-ville sont obtenus auprès du Service Economique de la Mairie. En général, pour le transport et l'artisanat, la source corporative ou syndicale est privilégiée.

A l'issue de l'inventaire, les points d'activité sont enfin répartis en (1) activités modernes, (2) activités intermédiaires à l'aide des sources administratives et (3) activités informelles. L'objectif ultime de l'enquête sur le secteur moderne est de construire à une échelle locale, des comptes de ce secteur selon le modèle proposé par le SCN 1993. L'échantillon est constitué d'une centaine d'entreprises tirées selon un plan de sondage stratifié représentatif.

4.2.3. Le système d'enquêtes 1-2-3 et l'enquête agricole

Dans le cadre de l'élaboration des comptes économiques locaux, l'enquête agricole s'impose surtout pour déterminer: (1) le niveau de la production agricole, notamment vivrière ; (2) la quantité et la provenance des intrants agricoles, de l'outillage, des équipements et de la main d'oeuvre ; (3) la destination de la production (autoconsommation et vente, lieu de vente).

Pour collecter les informations sur l'emploi, la consommation des ménages et le secteur informel, il est proposé de réaliser une version simplifiée des enquêtes mixtes de type 1-2-3. Comme pour le secteur moderne, l'objectif est de construire à une échelle locale, des comptes du secteur informel sur le modèle des comptes nationaux. Cependant, la non-tenue d'une comptabilité écrite pour les micro-entreprises rend difficile la mesure de ce secteur. Il y a donc nécessité de bâtir une méthodologie qui permette de reconstituer les comptes des unités de production informelles (UPI) sur une période mensuelle de référence.

Le système d'enquêtes 1-2-3 correspond à une succession d'enquêtes ou d'une enquête mixte (ménages/établissements) en deux phases (Backiny-Yetna et Bardon, 1999 ; DIAL et DSCN, 1994). Au cours de la première phase, on tire un échantillon pour réaliser deux enquêtes: une sur l'emploi et l'autre sur la demande des ménages.

La deuxième phase concerne toutes les UPI non agricoles identifiées dans les ménages lors de l'enquête emploi (phase 1) et dont les chefs ou les propriétaires travaillent pour leur compte propre. On ne procédera donc pas à l'échantillonnage dans ces UPI, car leur nombre n'est pas suffisamment important pour fournir des données fiables.

L'échantillon sur lequel se basent le système d'enquêtes 1-2-3 et l'enquête agricole est constitué de ménages. Pour les obtenir, un sondage stratifié à 2 ou 3 degrés est proposé pour tirer les ménages de la phase 1. La zone d'étude est divisée en 3 strates : la ville principale, l'hinterland urbain et l'hinterland rural. Dans ces strates on tire de manière indépendante un échantillon de taille 200, 100 et 100 ménages respectivement.

Dans l'hinterland rural, on suppose qu'il y a dans chaque ménage, au moins une personne active occupée dans le secteur agricole. Par conséquent, tout ménage y est agricole et ce, même si l'activité principale du chef de ménage n'est pas agricole. L'enquête agricole porte donc sur les exploitations appartenant aux ménages tirés dans l'hinterland (urbain et rural) dans le cadre du système d'enquêtes 1-2-3.

4.2.4. Les interviews complémentaires

Des entretiens avec les personnes ressources, bien ciblées, susceptibles de fournir une information à caractère économique, entre autres les maires, les responsables de projets, les entrepreneurs et les transporteurs de produits spécifiques seront indispensables. Il s'agit entre autres : (1) des entretiens avec les personnes trouvées sur des chantiers de construction afin de déterminer l'investissement des ménages en logements et en bâtiments à caractère professionnel au cours de l'année de référence ; (2) des entretiens avec les commerçants grossistes pour décrire le mouvement des produits agricoles et animaux ; (3) des entretiens avec les responsables des banques et de la poste pour estimer l'ordre de grandeur des mouvements de fonds publics et privés, leur origine, leur destination et leur affectation.

5. Conclusion

Pour être efficace la décentralisation politique doit impérativement s'accompagner de la décentralisation du système d'information au niveau local. Une nouvelle génération d'élus locaux, plus à l'écoute des populations, plus attentifs au développement économique et social et plus soucieux de baser leur action sur les faits est entrain d'émerger. Il lui faut donc des outils de gestions et un système d'information adaptés au niveau local.

La méthodologie d'élaboration des comptes économiques locaux permet de répondre partiellement à ces enjeux. Il s'agit de réaliser de véritables enquêtes en vue de la construction des comptes locaux et de la matrice de comptabilité sociale (MCS). Les enquêtes proposées sont des enquêtes légères quant à la taille de l'échantillon, la méthodologie de relevé et le nombre de variables à traiter.

Néanmoins pour obtenir de bons résultats et dans les délais, ce système d'enquêtes doit être mis en oeuvre par un personnel qualifié capable d'appréhender les différents concepts et méthodes retenus. Cela engendre nécessairement des coûts relativement importants au niveau local. Néanmoins la plupart des mairies pourraient y faire face. Compte tenu des enjeux de développement suscités par la décentralisation, les gouvernements, les municipalités et les bailleurs de fonds concernés devraient soutenir financièrement ces exercices.

Références

Ardilly, P. (1994). Les techniques de sondage, Technip, Paris.

Backiny-Yetna P. et Bardon R. (1999). Concepts et indicateurs du marché du travail et du secteur informel, AFRISTAT/DIAL.

Backiny-Yetna P. (1999). "Définitions internationales et mesure de l'emploi en Afrique subsaharienne", Communication au colloque enquêtes et systèmes d'information, ENSEA, Abidjan.

Backiny-Yetna P. et Gashongore F. (2001). Manuel de procédures de la méthodologie d'élaboration des comptes économiques locaux, Guide du responsable de la MCS, AFRISTAT/ENSEA

Backiny-Yetna P., Gashongore F., Mesplé-Somps S. et Nshimyumuremyi A. (2001) L'élaboration des comptes locaux. Document technique 1.4, PDM, Club du Sahel/OCDE

Banque Mondiale, CEE, FMI, Nations-Unies et OCDE (1993). Système de comptabilité nationale (SCN 1993).

Cour J-M. and Snrech S. (1998). Preparing for the future – A vision of West Africa in the year 2020. West Africa Long-term perspective study (WALTPS), OECD Paris

DIAL et DSCN, (1994). L'enquête 1-2-3 sur l'emploi et le secteur informel à Yaoundé, STA-

TECO n° 78, INSEE. Paris.

FAO (1995). Programme du recensement mondial de l'agriculture 2000, Collection FAO : Développement statistique, Rome.

Hussmans R., Mehran F., Verma V. (1990). Surveys of economically active population, employment, unemployment and underemployment, an ILO manual of concepts and methods, ILO, Geneva.

Mesplé-Somps S. et Nshimyumuremyi A. (1999). Outils d'analyse de l'économie locale, ENSEA, Abidjan, ISTED et DIAL, Paris.

Nshimyumuremyi, A. (1996). San Pédro : Dynamismes et synergies de l'économie locale, Etude de cas du programme "Relance des économies locales en Afrique de l'Ouest", PDM, Club du Sahel/OCDE, Paris.

Nshimyumuremyi, A. (1999). L'économie locale du département de Daloa, Etude de cas du programme "Relance des économies locales en Afrique de l'Ouest ", Rapport principal, PDM, Club du Sahel.

Nshimyumuremyi, A. (2002). Approches des grands comptes de l'économie locale. In Fauré, Y-A. et Labazee P. (sous la direction de) Socio-économie des villes africaines : Bobo et Korhogo dans les défis de la décentralisation, IRD-Karthala, Paris, 329-335

Nshimyumuremyi, A. (2002b). L'action locale des autorités : Le poids de l'Etat et des municipalités. In Fauré, Y-A. et Labazee P. (sous la direction de) Socio-économie des villes africaines : Bobo et Korhogo dans les défis de la décentralisation, IRD-Karthala, Paris,

PDM et Club du Sahel/OCDE. (2001). Gérer l'économie localement en Afrique : Manuel ECOLOC - Evaluation et Prospective de l'économie locale, Tome 1, synthèse.

Roubaud F. et Séruzier M. (1991). Economie non enregistrée par la statistique et secteur informel dans les pays en développement, STATECO n° 68, INSEE.

Séruzier M. (1996). Construire les comptes de la nation selon le SCN 1993, Economica, Paris.

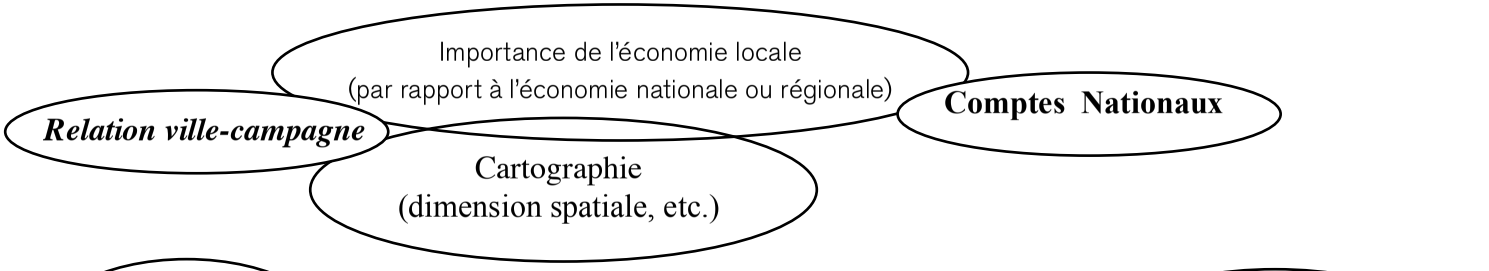
Annexes

Annexe 1 : Les mécanismes de fonctionnement de l'économie locale

Annexe 2 : Matrice de Comptabilité Sociale locale désagrée.

Annexe 3 : Schéma d'élaboration des comptes économiques locaux

Annexe 1 : Les mécanismes de fonctionnement de l'économie locale



Population (ménages)

Stock (natalité, mortalité, etc.)
Croissance
Répartition géographique
Structure (par âge, sexe)
Activité et emploi
Participation aux décisions

Unité de production

Fonctionnement
Système de production
(efficacité, durabilité)
Production
Investissement
Croissance
Principaux acteurs

Comptes économiques

Matrice de comptabilité sociale (MCS)
Comptes des branches
Comptes des institutions
Agrégats (par tête)
Production (PLB)
Consommation finale (publique et privée)
Investissement (par tête)
Importations
Exportations
Transferts
Répartition par secteurs d'activité
(Primaire, Secondaire, Tertiaire)
(Agricole, informel, moderne)
(Public, Privé)
Répartition géographique
(urbain/rural, commune/zone d'influence)

Complexes d'activité

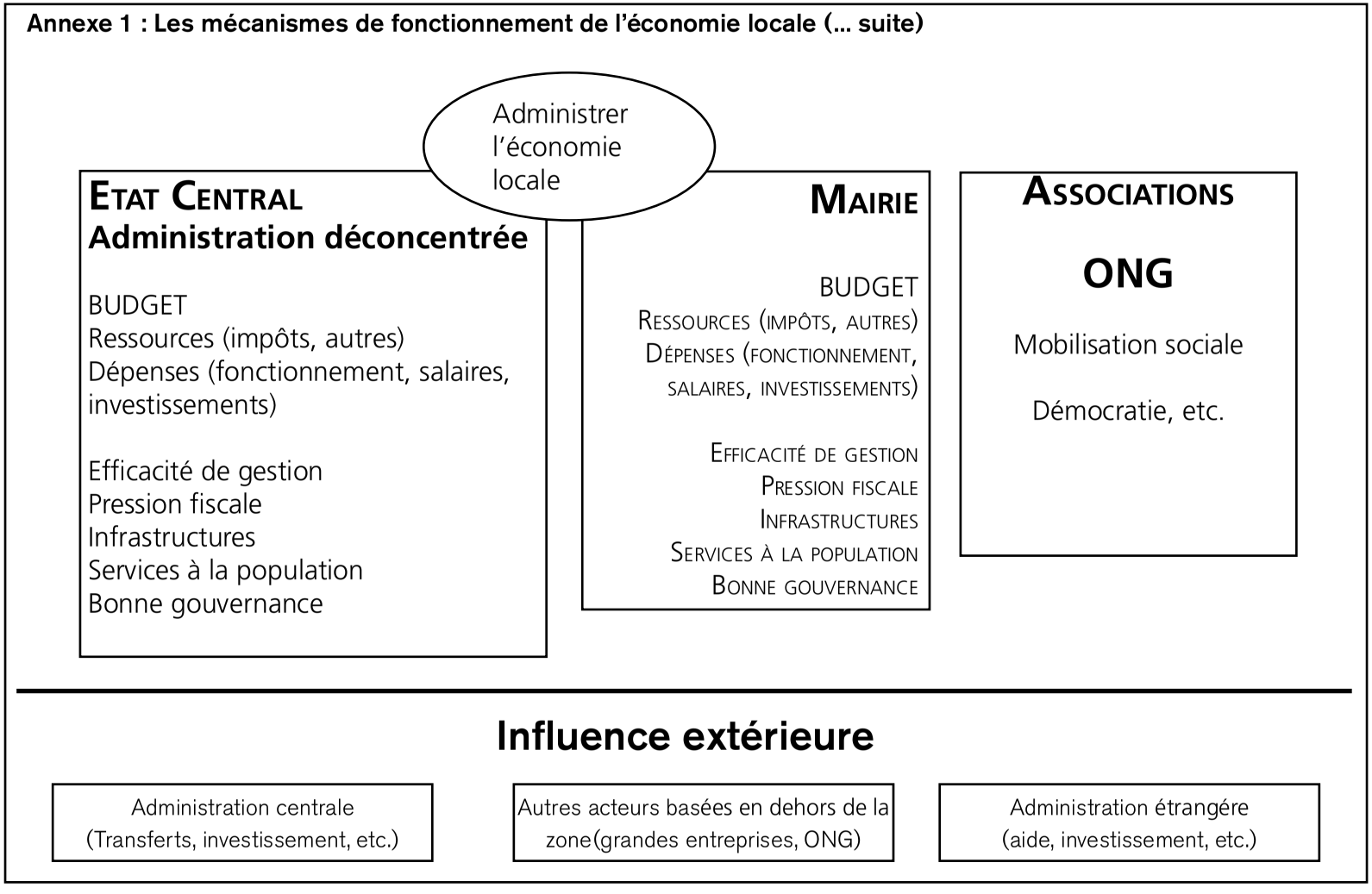
Principaux complexes

- se nourrir
- autres besoins essentiels
- administrer
- équiper, construire et entretenir
- échanger
- faire circuler l'argent
- produire des biens et services

Indicateurs sociaux :

- Education
- Santé
- Assainissement
- Eau
- Electricité
- Téléphone
- Poste
- Infrastructures (route..

Annexe 1 : Les mécanismes de fonctionnement de l'économie locale (... suite)



Matrice de comptabilité sociale (forme désagrégée)

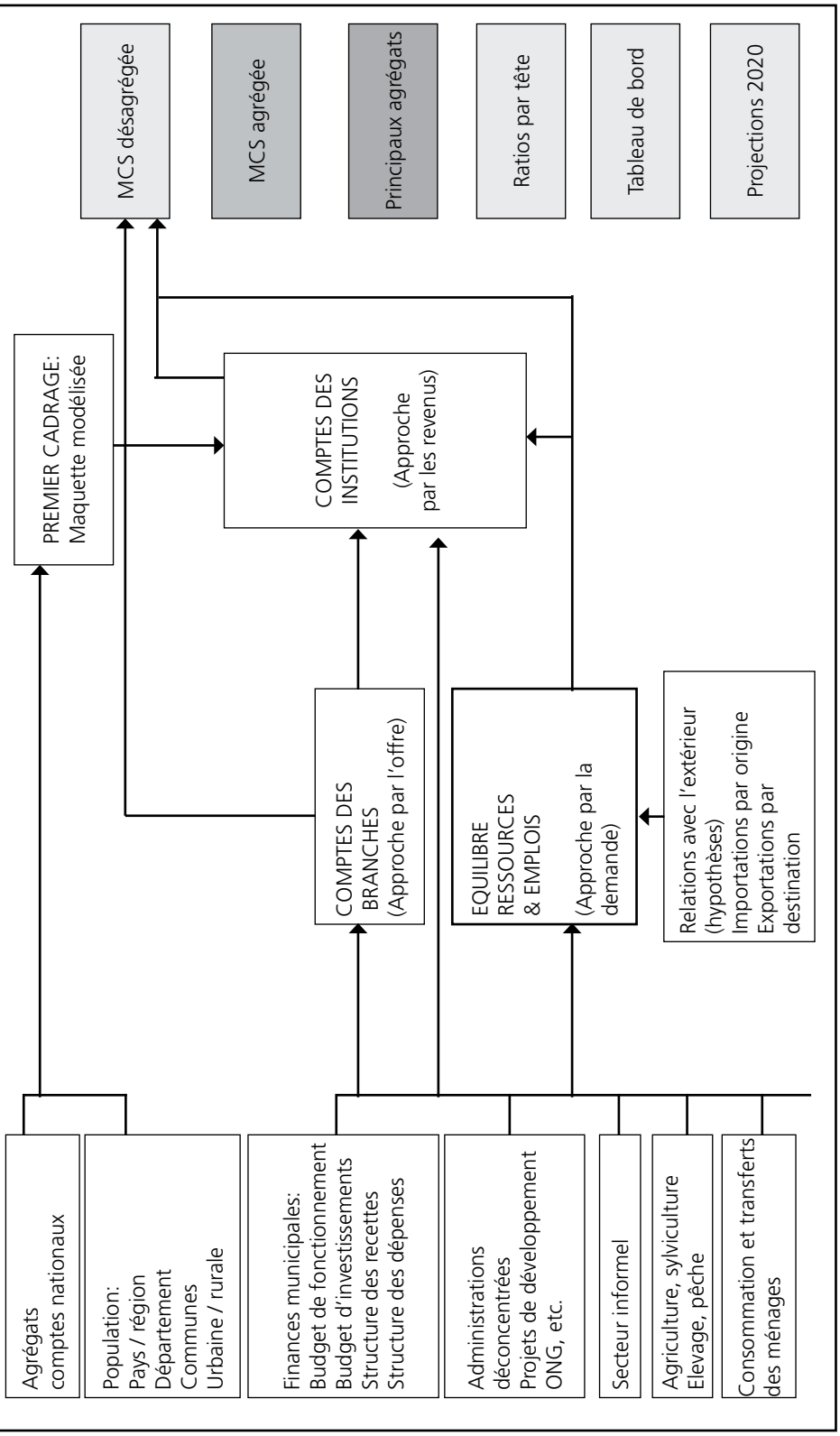
		Branches								Produits							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Agri, syl, pêche	Industrie	BTP	Commerce	Transport	ASM.	SNM	Total Branches	Agri, syl, pêche	Industrie	BTP	Commerce	Transport	ASM	SNM	Total Produits
1	Agri, syl, pêche	Pas de chiffres dans ce cadre								P1							P1
2	Industrie										P2						P2
3	BTP											P3					P3
4	Commerce												P4				P4
5	Transport									Production de divers produits par les branches				P5			P5
6	Autres serv. march.														P6		P6
7	SNM															P7	P7
8	**Total Branches**									P1	P2	P3	P4	P5	P6	P7	P1+…+P7
9	Agri, syl, pêche	Consommations intermédiaires des branches en divers produits							Colonnes 1 à 7	Marges commerciales (M)							(M1+M2)-(M1+M2)
10	Industrie																
11	BTP																
12	Commerce									M1	M2		*-(M1+M2)				
13	Transport																
14	Autres serv. march.																
15	SNM																
16	**Total Produits**	Ligne 9+10+11+12+13+14+15								M1	M2						
17	Ménages	Divers impôts et taxes indirects payés à la commune par les branches							Colonnes 1								
18	Entreprises																
19	Commune																
20	Adm. Déconcentrée	Divers impôts indirects et taxes payés aux administrations autres que la commune par les branches							à	Droits de douane sur divers produits payés aux administrations déconcentrés (D)							D1+…+ D7
21	Autres administrations								7								
22	Travail	Revenu du travail							Colonnes 1 à 7	Pas de chiffres dans ce cadre							
23	Capital	Revenu du capital (EBE)															
24	Ménages	Pas de chiffres dans ce cadre								Pas de chiffres dans ce cadre							
25	Entreprises																
26	Administrations																
27	Hinterland	Pas de chiffres dans ce cadre								Importations en divers produits (IMP)							IMP1
28	Reste du pays																IMP2
29	RDM																IMP3
30	**Total Global**	Production des branches								Offre totale en chaque produit							

Matrice de comptabilité sociale (forme désagrégée (suite))

		Secteurs institutionnels					Facteurs de production		Accumulation			Extérieur			Total Global
		17	18	19	20	21	22	23	24	25	26	27	28	29	30
		Ménages	Entreprises	Commune	Adm. déc.	Autres adm.	Travail	Capital	Ménages	Entreprises	Admin.	Hinterland	Reste pays	RDM	
1	Agri, syl, pêche	Pas de chiffres dans ce cadre					Pas de chiffres dans ce cadre		Pas de chiffres dans ce cadre			Pas de chiffres dans ce cadre			P1
2	Industrie														P2
3	BTP														P3
4	Commerce														P4
5	Transport														P5
6	Autres serv. march.														P6
7	SNM														P7
8	**Total Branches**														P1+…+P7
9	Agri, syl, pêche	Consommation finale des secteurs en différents produits (CF)					Pas de chiffres dans ce cadre		Investissement des agents en divers produits (Inv)			Exportations des différents produits (EXP)			Demande totale en chaque produit
10	Industrie														
11	BTP														
12	Commerce														
13	Transport														
14	Autres serv. march.														
15	SNM														
16	**Total Produits**	CF1		CF3	CF4	CF5			Inv1	Inv2	Inv3	EXP1	EXP2	EXP3	Demande globale
17	Ménages	Transferts interménages	Indemnités d'assurance		Prestations sociales	Transferts	Revenu du travail		Pas de chiffres dans ce cadre			Transferts courants reçus par les agents locaux			Revenu ménages
18	Entreprises	Primes d'assurance	Primes et indemn. d'assurance	Primes d'assurance	Prime assur. Subventions	Primes d'assurance	Rev du cap (EBE)								Revenu entreprises
19	Commune	Impôts sur revenu	Impôts sur revenu			Transferts									Recettes commune
20	Adm. Déconcentrée	Impôts sur revenu	Impôts revenu Cotisation soc.	Cotisation soc.	Cotisation soc.	Cotisation soc.									Recettes publiques
21	Autres administrations	Cotisations volontaires			Subventions IPSBL										Recettes autres Adm.
22	Travail	Pas de chiffres dans ce cadre					Pas de chiffres dans ce cadre		Pas de chiffres dans ce cadre			Pas de chiffres dans ce cadre			Revenu du travail
23	Capital														Revenu capital (EBE)
24	Ménages	E1													FBCF Ménages
25	Entreprises	E2					Pas de chiffres dans ce cadre		Pas de chiffres dans ce cadre			Transferts en capital reçus par les agents locaux			FBCF Entreprises
26	Administrations	Epargne des secteurs (E)		E31	E32	E33									FBCF adm
27	Hinterland	Transferts courants et en capital des agents locaux vers l'extérieur					Pas de chiffres dans ce cadre		Pas de chiffres dans ce cadre			Pas de chiffres dans ce cadre			Recettes de l'ext
28	Reste du pays														
29	RDM														
30	**Total Global**	Dépenses ménages	Dépenses entreprises	Budget fonct. commune	Budget fonct. adm.déc	Budget fonct. autres adm.	Revenu du travail	Revenu du capital (EBE)	FBCF ménages	FBCF entreprises	FBCF adm.	Dépenses de l'extérieur			Total global

ASM = Autres services marchands SNM = Services non marchands

Annexe 1 : Les mécanismes de fonctionnement de l'économie locale (... suite)



Cadre stratégique régional de référence pour le renforcement des capacités statistiques en Afrique

1. Pourquoi un nouveau Cadre?

La réduction de la pauvreté et le développement nécessitent une masse importante d'information. Combien de personnes sont alphabétisées? Combien d'enfants ont été vaccinés? Le niveau de l'emploi s'améliore-t-il? Cependant, obtenir de telles informations en temps opportun et régulièrement, constitue un vrai défi pour bon nombre de pays en développement, en particulier en Afrique. Beaucoup de systèmes statistiques nationaux, qui constituent la principale source des statistiques nécessaires pour assurer le suivi du développement en Afrique, sont pris dans le cercle vicieux de la pénurie de ressources et des mauvais résultats. Ces systèmes n'ont pas les moyens de collecter, de compiler et de diffuser, ne serait-ce que le minimum de données requises, encore moins de faire face aux nouveaux défis et de satisfaire les nouvelles demandes de données.

À l'orée du troisième millénaire, les pays africains et d'autres pays en développement, ainsi que les partenaires au développement, se sont engagés à promouvoir une gestion axée sur les resultants en matière de développement ou politique axe sur les résultats. Il s'agit de mettre l'accent sur " la performance, la réalisation de produits, de résultats et d'impact". La politique axe sur les résultats comprend les stratégies de réduction de la pauvreté (SRP) et les autres plans nationaux de développement, le Nouveau partenariat pour le développement de l'Afrique (NEPAD) et les objectifs du millénaire pour le développement (OMD). En 2005, lors du Sommet consacré à la revue de la Déclaration du Millénaire, les 191 États Membres de l'ONU ont, aux termes de la principale résolution, demandé aux différents pays d'élaborer et de mettre en oeuvre des stratégies axées sur des objectifs reposant sur les cibles retenues à l'horizon 2015.

Le Cadre stratégique régional de référence pour le renforcement des capacités en Afrique (CSRR) a été conçu pour aider à améliorer les résultats en matière de développement et asseoir la bonne gouvernance en Afrique, en orientant et en accélérant les activités de renforcement durable des capacités statistiques. Il s'agit là de mesures prises par les pays africains, avec le concours de la communauté internationale, pour relever, d'ici 2015, les défis liés à la disponibilité des données nécessaires à la politique axée sur les résultats.

Politique de resultants

A la suite de la Conférence des Nations Unies sur le financement du développement tenue à Monterrey (Mexique) en 2002, un large consensus s'est dégagé selon lequel, pour que le développement soit efficace, il appartient à chaque pays d'impulser et de maîtriser son propre développement à la lumière de ses réalités. La nécessité de mettre en place de bonnes politiques et de bonnes institutions pour obtenir de bons résultats a également été reconnue. C'est lorsque ces conditions sont réunies que l'aide au développement peut être très efficace.

Après le sommet de Monterrey, la Deuxième Table ronde internationale sur la gestion du développement axée sur les résultats, tenue au Maroc en 2004, a adopté le Plan d'action de Marrakech pour la Statistique (MAPS). Ce plan comporte un nombre limité d'actions destinées à améliorer la disponibilité et l'utilisation de données à l'appui des stratégies de réduction de la pauvreté, dans le cadre d'un budget arrêté d'un commun accord et d'un calendrier spécifique. Le MAPS définit les besoins permettant de faire face à l'échelle mondiale aux défis que présente, en matière de données, la politique axée sur les résultats et la réalisation des OMD. Le CSRR propose un mécanisme de mise en oeuvre du MAPS en Afrique.

2. Que propose-t-on?

Le CSRR est davantage un cadre général qu'un ensemble précis d'activités et d'orientations préconisées. Il reconnaît également que la plupart des actions devront être menées au niveau national et que les problèmes et priorités varient d'un pays à l'autre. Le CSRR, dont l'objectif général est de renforcer les systèmes statistiques nationaux, repose sur trois thèmes: faire face aux besoins des utilisateurs; améliorer la gestion des systèmes statistiques nationaux; et garantir la viabilité et l'irréversibilité du développement de la statistique. Les principales actions à l'appui du premier thème sont les suivantes:

- Développer les domaines-clés en matière de données, en mettant un accent particulier sur le suivi des SRP et des OMD, et sur une meilleure utilisation des sources actuelles de données;
- Investir dans l'infrastructure statistique de base nécessaire pour appuyer des systèmes statistiques efficients et efficaces;
- Utiliser de manière efficace les nouvelles technologies dans la collecte, la compilation et la diffusion de données;
- Renforcer l'analyse des données, aussi bien par les producteurs que par les utilisateurs, afin de veiller à ce que les résultats soient pertinents par rapport au processus de développement;
- Améliorer la diffusion de données, et veiller à ce qu'elle soit conforme à des cadres tels que le Système général de diffusion des données (SGDD).

À l'appui du deuxième thème, le CSRR met l'accent sur les éléments suivants:

- Mettre à jour le cadre juridique et réglementaire de la statistique et veiller à ce qu'il soit conforme aux Principes fondamentaux des Nations Unies et aux bonnes pratiques relatives aux statistiques officielles;
- Renforcer la coordination et la communication entre tous les acteurs, notamment les fournisseurs et les utilisateurs de données;
- Mettre l'accent sur le développement et une utilization plus rationnelle des ressources humaines dans le domaine de la statistique.

En ce qui concerne le troisième, l'accent est mis sur les elements suivants:

- Intégrer la statistique en tant qu'activité déterminante du processus de développement et pierre angulaire du renforcement de la gouvernance et de la responsabilisation;
- Améliorer le financement et la viabilité de la statistique, en particulier pour appuyer la mise en oeuvre des SNDS.

Le CSRR encourage les pays à préparer et à mettre en oeuvre une stratégie nationale pour le développement de la statistique (SNDS) en vue de soutenir les 3 thèmes sus cités.

3. Comment la mise en oeuvre du cadre sera-t-elle assurée?

Il incombe en premier lieu aux systèmes statistiques nationaux de mettre en oeuvre le Cadre, les instituts statistiques nationaux en étant les principaux moteurs. Ces instituts doivent prendre en charge la promotion et rechercher des appuis en faveur du Cadre en général. Les États doivent veiller à ce que l'importance de la statistique soit reconnue et que des ressources suffisantes lui soient consacrées. Les utilisateurs de données doivent être sensibles à l'importance de la statistique pour obtenir les résultats en matière de développement et veiller à ce que leurs besoins soient pris en compte et que les données disponibles soient effectivement mises à profit pour améliorer les politiques et la fourniture de services.

Les organisations sous-régionales et régionales ont également un rôle important à jouer, notamment dans la promotion du développement de la statistique, le suivi de sa mise en oeuvre et l'organisation de rencontres destinées à la mise en commun de connaissances, d'expériences et de compétences. Pour que le Cadre soit efficient, il sera également indispensable que les organismes internationaux de développement et les donateurs participent pleinement à sa mise en oeuvre. Il sera nécessaire de mettre en place des programmes soutenus garantissant que l'appui extérieur requis est disponible, qu'il est fourni en temps opportun et qu'il complète le financement au niveau national de programmes cohérents de développement des systèmes statistiques, de manière à réduire la charge déjà lourde qui pèse sur ces systèmes.

Mettre à profit les acquis

Avant l'élaboration du Cadre, la communauté statistique africaine et ses partenaires ont lancé un certain nombre d'initiatives visant le renforcement des capacités statistiques du continent, notamment le Plan d'action d'Addis-Abeba pour le développement de la statistique en Afrique (AAPA). Évaluée à la fin des années 90, la mise en oeuvre de l'AAPA a été contrarié par l'absence d'appropriation et le faible leadership au niveau des système statistiques nationaux, la pénurie de ressources financières et l'absence de capacités institutionnelles et humaines. Par la suite, diverses rencontres intergouvernementales — Comité de l'information pour le développement (CODI) en septembre 2001, Forum sur le développement de la statistique en Afrique (FASDEV) en mai 2004 — ont mis en évidence la nécessité d'adopter une nouvelle approche conforme au MAPS, sous la coordination de la Commission économique pour l'Afrique (CEA) et la Banque africaine de développement (BAD).

Dans le souci d'éviter les problèmes rencontrés dans la mise en oeuvre des initiatives antérieures, le CSRR se fonde sur le diagnostic de la situation actuelle de la statistique en Afrique et des principales forces et faiblesses dans ce domaine, ainsi que de tous les principaux intervenants, de leurs activités actuelles, de ce qu'il y a lieu de faire pour disposer de données plus importantes et d'en améliorer la qualité aux fins du développement et de la réduction de la pauvreté. Le Cadre met l'accent sur le renforcement de l'obligation de reddition et de la transparence, et sur la nécessité de disposer de statistiques de meilleure qualité en Afrique en général.

4. Combien coûtera-t-il?

Pour réaliser les objectifs du CSRR, il est nécessaire d'accroître les investissements. Le coût supplémentaire requis pour la mise en oeuvre du Cadre est estimé à 75 millions de dollars environ par an pour l'ensemble des pays africains, ou à 60 millions de dollars par an pour les pays à faible revenu. Cela requiert l'affectation de ressources budgétaires suffisantes, sur une base durable, de la part des États, ainsi que l'appui des partenaires au développement. Toutefois, bon nombre des actions recommandées ne nécessitent aucun financement supplémentaire.

5. Qu'en est-il du suivi et du reporting?

La CEA et la BAD assureront conjointement la coordination de la mise en oeuvre du suivi et du reporting du CSRR. Les deux institutions s'entendront sur des mécanismes de coordination appropriés. Le CSRR mettra à profit les mécanismes existants pour assurer le suivi et présenter des rapports aux parties intéressées, y compris les indicateurs du renforcement des capacités statistiques de PARIS21 ainsi que le reporting léger sur les programmes et projets des donateurs. Des évaluations périodiques seront faites semestriellement et à mi-parcours en 2010 et finalement en 2015 et leurs rapports soumis au CODI, au FASDEV, à la Conférence des ministres de la CEA et au Conseil d'administration de la BAD.

Reference Regional Strategic Framework for Statistical Capacity Building in Africa

1. Why a New Framework?

Poverty reduction and development require a great deal of information. How many people are literate? How many children are vaccinated? Is the level of employment improving? Obtaining such information in a timely and regular manner, however, has been a challenge in many development countries, especially in Africa.

Many national statistical systems, the source of the statistics needed to monitor development in Africa, are trapped in a vicious cycle of limited resources and poor performance. They lack the capacity to collect, compile and disseminate even the minimum data needed let alone respond to new challenges and to meet new demands for data.

At the beginning of the third millennium, African and other developing countries as well as their development partners, have committed themselves to managing for development results or a results agenda. This involves "focusing on performance and the achievement of outputs, outcomes and impact". The results agenda includes Poverty Reduction Strategies (PRSs) and other national development plans, the New Partnership for Africa's Development (NEPAD) and the Millennium Development Goals (MDGs). **The central recommendation–adopted by all 191 member states of the United Nations at the 2005 Millennium Declaration review summit–is that countries should prepare and implement ambitious goal-based strategies anchored in the 2015 targets and time horizon.**

The Regional Reference Strategic Framework for Statistical Capacity Building in Africa (RRSF) has been prepared to contribute to improved development outcomes and good governance in Africa by guiding and accelerating sustainable statistical capacity building activities. It is the response by African countries, with the support of the international community, to meet the data challenges of the results agenda by 2015.

Results Agenda
Following the UN Conference on Financing for Development held in Monterrey, Mexico in 2002, there is broad consensus that to be successful, development has to be country-driven, country-owned, and country-specific. There is also agreement that good results require good policies and institutions. Where these conditions are in place, development assistance can be highly effective.

Following Monterrey, at the Second International Roundtable on Managing for Development Results in Morocco in 2004, the Marrakech Action Plan for Statistics (MAPS) was developed. MAPS sets out a general agenda, with a limited number of actions designed to improve data availability and use in support of poverty reduction within an agreed budget and a specified time frame. MAPS sets out what is needed world-wide to meet the data challenges of the results agenda and the MDGs. The Regional Reference Strategic Framework provides the mechanism to implement MAPS in Africa

2. What is Proposed?

The RRSF is a broad framework rather than a specific set of activities and policy prescriptions, recognizing that most actions will need to take place at the national level and that countries face different problems and have different priorities. The RRSF, whose overall objective is to strengthen national statistical systems, is built around three themes: **meeting users needs**; **improving management of statistical systems**; and **ensuring the sustainability and irreversibility of statistical development**.

Key actions in support for the first theme include:

- Undertaking development in key data areas, with particular emphasis on monitoring poverty reduction strategies and the MDGs, with a focus on making better use of existing data sources
- Investing in the underlying statistical infrastructure needed to support efficient and effective statistical systems
- Making effective use of new technologies to support data collection, compilation and dissemination
- Strengthening the analysis of data by both producers and users to ensure that the results are relevant to the development process
- Improving data dissemination and ensuring compliance with frameworks such as the General Data Dissemination System

In support of the second theme, the RRSF emphasizes:

- Updating the legal and regulatory framework for statistics and ensuring that it is in line with the UN fundamental principles and good practice for official statistics
- Strengthening coordination and communication between all players, including data providers and users
- Placing emphasis on the development and more effective use of human resources in statistics

In support of the third theme, the RRSF focuses on:

- Mainstreaming statistics as a key support activity for the development process and as a cornerstone of the process of improving governance and accountability
- Improving the funding and sustainability of statistics, in particular in support of the implementation of NSDS

The RRSF encourages all countries to prepare and implement a National Strategy for the Development of Statistics (NSDS) in support of all the three themes.

3. How Will it be Implemented?

Primary responsibility for implementing the Framework lies with national statistical systems, with the key drivers being national statistical agencies. These agencies need to create awareness about and enlist support for the framework generally. National governments must ensure that the importance of statistics is recognized and that adequate resources are made available. Data users need to be aware of the importance of statistics to development outcomes; and make sure that their needs are heard and that available data are used effectively in improving policy and service delivery.

Sub-regional and regional organizations have as well to play important roles, especially in the area of promoting statistical development, monitoring implementation and providing forums for sharing knowledge, experience and expertise. If the Framework is to be effective, it will also be essential for international development agencies and donors to be fully involved in its implementation. There will be a need for a sustained program to ensure that the external support that is needed is made available, delivered on time and complements national funding in supporting a coherent programme of development of national statistical systems, in ways that minimize the load on already stressed statistical systems.

Building on What has Already Been Achieved

Previous to the RSSF, Africa's statistical community and its partners have implemented a number of initiatives to boost statistical capacity on the continent, including the Addis Ababa Plan of Action for Statistical Development in Africa in the 1990s (AAPA). Evaluated at the end of the 1990s, the implementation of the AAPA was hindered by lack of ownership, poor leadership within national statistical systems, a lack of financial resources, and the inadequacy of institutional and human capacities. Subsequently, various intergovernmental forums - the Committee on Development Information (CODI), September 2001, and the Forum on African Statistical Development (FASDEV), in May 2004, identified the need for a new approach in line with the Marrakech Action Plan on Statistics, with coordination by the United Nations Economic Commission for Africa (UNECA) and the African Development Bank (AfDB).

To try to avoid the problems faced by previous initiatives, the RRSF is based on a detailed assessment of the current state of statistics in Africa and of key strengths and weaknesses. It also includes an assessment of all the main stakeholders, what they currently do and what is needed to improve the availability and use of better data in support of development and poverty reduction. It puts emphasis on improving accountability and transparency and recognition of the importance of better statistics within Africa generally.

4. What Will it Cost?

There is a need for increased investment if the RRSF objectives are to be achieved. For all African countries, the incremental cost needed to implement the framework is estimated at $75 million per year or for low income countries about $60 million per year. This requires increasing national government's commitment for adequate and sustainable budgetary resources as well as support from development partners. However, many of the recommended actions do not need additional funding.

5. How Will it be Monitored and Reported?

AfDB and UNECA, jointly, will coordinate the implementation, monitoring and reporting of the RRSF. Both organizations will agree on the appropriate coordination mechanisms. This should take into consideration the already existing mechanisms for monitoring progress and for reporting back to stakeholders, including the PARIS21 statistical capacity building indicators as well as the light reporting exercise for donor programs and projects. Regular reviews will be conducted, including bi-annual, mid-decade (in 2010) and main review (in 2015) reports, which will be presented to CODI, FASDEV, the UNECA Conference of Ministers for Finance and Planning, and the AfDB Board of Governors.

AFRISTAT, un exemple de coopération et de partenariat statistique en Afrique au sud du Sahara

Martin Balepa[1]

Résumé

En janvier *2006, AFRISTAT a enregistré dix ans d'existence au service des Etats membres dans le domaine du renforcement des capacités. Cette décennie sera célébrée en avril 2006. Pour marquer cette occasion, AFRISTAT lance son plan statistique à moyen terme, Plan Stratégique d'Activité d'AFRISTAT 2006-2010 (PSAA).*

A travers le PSAA, AFRISTAT montre son engagement sans faille, dans les Etats membres et plus généralement, dans tous les Etats africains au sud du Sahara, à être un partenaire important dans la mise en œuvre des systèmes intégrés de gestion de développement. L'approche stratégique, logique et réaliste qui a soutenu les objectifs spécifiques, les résultats prévus et les activités prévues pour la période 2006-2010, établit le PSAA comme un cadre rigoureux qui donne plus de visibilité et davantage de cohérence dans les interventions d'AFRISTAT.

En ce qui concerne l'objectif global, les activités d'AFRISTAT, pendant la période 2006-2010, se concentreront sur les cinq points suivants : (i) fourniture de l'appui et d'assistance technique aux systèmes nationaux de statistiques des Etats dans les domaines tels : les capacités d'organisation pour le développement des statistiques et de la formation ; (ii) contribution au développement des systèmes d'information pour concevoir, mettre en œuvre, et évaluer les stratégies de réduction de la pauvreté, aussi bien que pour mettre en oeuvre les objectifs du millénaire pour le développement ; (iii) fourniture de l'appui aux Etats africains pour le renforcement des capacités dans les domaines de la collecte, le traitement et l'analyse de données, aussi bien que l'élaboration des rapports statistiques et économiques ; (iv) développement et expertise dans l'élaboration de base de données dans les Etats et mise en place d'une stratégie de renforcement des capacités dans la diffusion des statistiques ; (v) contribution à la recherche statistique appliquée par le développement de méthodologies qui tiennent comptent des capacités statistiques réelles des systèmes statistiques nationaux des Etats.

Les trois premiers thèmes concernent pratiquement tous les domaines couverts par un système national de statistiques, alors que le quatrième couvre la diffusion des données

1. Directeur Général d'AFRISTAT, BP 1600 Bamako, Mali. afristat@afristat.org

et l'élaboration de rapports statistiques, un aspect souvent négligé dans le processus de production statistique. Enfin, le cinquième thème n'est pas directement lié à l'intervention d'AFRISTAT dans les états, en effet, c'est un programme d'investissement dont l'objectif principal est de favoriser le développement de la collecte et des outils analytiques et des méthodes appropriées aux besoins des Etats membres.

Ces thèmes illustrent un souci véritable pour une approche équilibrée. Le premier thème cherche à fournir l'appui aux Etats pour la création d'un environnement administratif et institutionnel favorable à la production statistique. Les deuxième et troisième thèmes contribuent au désir de mesurer, d'améliorer et de diversifier le support aux Etats membres dans la production statistique et conformément aux exigences de la bonne gouvernance, la décentralisation et la réduction de la pauvreté, sans oublier la production de données qui est indispensable dans la conception des politiques économiques et budgétaires, des stratégies de développement et dans le processus d'intégration régionale. Le cinquième thème démontre une conscience du besoin d'AFRISTAT d'investir, avec l'appui de partenaires, dans les nouveaux secteurs à partir desquels la plupart des demandes seront faites, pour intensifier sa capacité technique d'intervention aussi bien que celle des Etats membres

Summary

In January 2006, AFRISTAT clocked ten years of existence and service to Member States in the area of capacity building and will be celebrating this landmark in its history in April 2006. To mark this occasion, AFRISTAT is launching its medium term statistical plan, AFRISTAT Strategic Plan of Activities 2006-2010 (ASPA).

Through ASPA, AFRISTAT displays its unrelenting commitment to emerge, in the Member States and more generally, throughout Sub-Saharan African States, as a key technical partner in designing and development of management information systems. The strategic, logical and realistic approach that underpinned the specific objectives, expected outcomes and planned activities for the period 2006-2010, establishes the ASPA as a stringent working framework that gives visibility and further consistency to AFRISTAT interventions.

With regard to the global objective, AFRISTAT's activities, during the 2006-2010 period, will focus on five these: (i) provide support and technical assistance to national statistical systems of Member States in the areas of the organizational capacities for the development of statistics and training; (ii) contribute to developing information systems for designing, implementing, monitoring and evaluating poverty reduction strategies, as well as for implementing the Millennium Development Goals ; (iii) provide support to Sub-Saharan African States for capacity building in data collection, processing and analysis, as well as the compilation of statistical and economic reports; (iv) develop and contribute to database development in

Member States and capacity building in the dissemination of statistics; (v) contribute to applied research with a view to developing methodologies tailored to the capacities of national statistical systems of Member States.

The first three themes pertain to virtually all areas covered by a national statistical system, while the fourth covers the dissemination of statistical data and reports, an often neglected aspect in the statistical production process. Lastly, the fifth theme does not directly relate to AFRISTAT's intervention programme in Member States. Instead, it is an investment programme whose main objective is to promote the development of collection and analytic tools and methods suitable to the needs of Member States.

These themes illustrate a genuine concern for a balanced approach. The first theme seeks to provide support to Member States for the creation of an enabling administrative and institutional environment for statistical production. The second and third themes attest to the desire to scale up and tailor support to Member States for the purpose of statistical production and in compliance with the requirements of good governance, decentralization and poverty alleviation, without overlooking data production that is indispensable in designing economic and budgetary policies, development strategies and in the regional integration process. The fifth theme demonstrates an awareness of AFRISTAT's need to invest, with partner support, to step up its technical intervention capacity as well as that of Members States in new areas from which most demands will be made.

Préambule

En janvier 2006, AFRISTAT est entré dans sa dixième année de fonctionnement. Ce qui est, bien que simple anniversaire, un véritable évènement pour la communauté statistique africaine qui devrait inspirer nos Etats dans d'autres domaines pour renforcer l'intégration économique et celle des peuples tant appelée de tous vœux. En cette occasion, il semble donc important de revenir sur cette institution, de rappeler les circonstances de sa création, ses objectifs, ses réalisations et surtout de jeter un regard sur ses projets d'avenir.

Quel contexte à la veille de la création d'AFRISTAT ?

Dans les années 1980 et au début des années 1990, les pays africains et singulièrement ceux de la Zone Franc éprouvaient d'énormes difficultés à disposer de données statistiques fiables nécessaires au suivi de leurs économies. La plupart de ces pays étaient placés sous des programmes d'ajustement structurel qui encadraient leurs économies.

2. Bénin, Burkina Faso, Cameroun, Centrafrique, Comores, Congo, Côte d'Ivoire, Gabon, Guinée Equatoriale, Mali, Niger, Sénégal, Tchad et Togo. Quatre autres Etats ont adhéré plus tard: Cap-Vert, Guinée-Bissau, Guinée et Mauritanie. D'autres demandes d'adhésion sont en cours d'étude.

Comme on le sait, la mise en application de ces politiques et programmes a entraîné une série de conséquences qui ont ralenti sérieusement des activités dans bon nombre de secteurs de la vie nationale. Une des premières conséquences s'est manifestée dans la limitation des recrutements dans la Fonction publique afin de réduire la masse salariale et assurer ainsi les équilibres fondamentaux des finances publiques. Les systèmes statistiques nationaux, autant que d'autres secteurs, ont subi ces effets, parfois très lourdement, se traduisant par une diminution drastique de crédits pour la conduite des opérations de production de données statistiques. Des ressources tant nationales qu'extérieures devenaient de plus en plus rares pour financer la statistique dont le développement se révélait paradoxalement être un passage obligé, en tant qu'outil de mesure des progrès accomplis, pour guider les décideurs dans leurs lourdes tâches d'assainissement des économies nationales.

Il convient aussi de relever qu'à la même période, les Etats africains s'étaient lancés dans la mise en place des zones d'intégration pour mieux coordonner leurs efforts de développement. Actuellement, la plupart des Etats membres d'AFRISTAT font partie soit de la CEDEAO (Communauté Economique des Etats de l'Afrique de l'Ouest), de la CEMAC (Communauté Economique et Monétaire d'Afrique Centrale), de la CEEAC (Communauté Economique des Etats d'Afrique Centrale) et de l'UEMOA (Union Monétaire et Economique Ouest-Africaine).

Face à cette situation qui était plus de nature à handicaper les gouvernants et les décideurs de tout bord dans la recherche des solutions durables aux problèmes de développement, les Etats de la Zone Franc[2] ont décidé, le 21 septembre 1993 à Abidjan (Côte d'Ivoire), de créer AFRISTAT, une organisation inter-Etats de développement de la statistique en Afrique au sud du Sahara.

En d'autres termes, la création d'AFRISTAT découle de la prise de conscience par les Etats de la nécessité de mettre en commun leurs ressources rares pour enrayer le déclin de leurs systèmes statistiques observé tout au long de la décennie 1980. Il se dégageait clairement des conditions favorables à la création d'un organisme supranational chargé de promouvoir l'homogénéité et la comparabilité des informations statistiques dans l'ensemble des Etats, suite à la volonté politique exprimée au début des années 1990, de rénover et de renforcer les processus d'intégration régionale. Il fallait aussi promouvoir une information économique et sociale fiable et accessible, dans les meilleures conditions de coût et de délai, à l'ensemble des agents économiques et sociaux ainsi qu'aux citoyens en vue de renforcer les processus de démocratisation et de bonne gouvernance.

Pour quels objectifs ?

Le rôle assigné à AFRISTAT découle directement des raisons qui ont motivé sa création. Il s'est rapidement développé comme un outil de renforcement des capacités statistiques et d'harmonisation des concepts et des méthodes, préalables nécessaires à la comparabilité des statistiques. Il promeut aussi la diffusion de l'information statistique au sein de la région. Ainsi, AFRISTAT s'est assigné les rôles suivants : (i) concevoir, pour les Etats membres, des méthodologies communes pour la production et la diffusion de l'information statistique ; (ii) veiller à l'harmonisation des concepts et nomenclatures utilisés par les Etats membres afin de rendre les statistiques comparables ; (iii) contribuer à l'amélioration de la diffusion et à l'utilisation de l'information statistique dans l'ensemble des Etats membres, notamment en organisant des banques de données accessibles aux différents agents économiques et sociaux ; (iv) effectuer des travaux d'analyse et de synthèse pour l'ensemble des Etats membres ; (v) apporter son appui aux activités des organismes nationaux de statistique des Etats membres en contribuant pour cela à l'instruction de projets financés par des bailleurs de fonds multilatéraux ou bilatéraux, à l'échelle de la région, de plusieurs Etats membres ou d'un Etat membre.

Et axes de travail pour un développement minimum commun de la statistique

Lors de la création d'AFRISTAT, des domaines prioritaires de travail avaient été identifiés : les statistiques des prix, la comptabilité nationale avec une meilleure prise en compte du secteur informel, les statistiques sur les conditions de vie des ménages et la pauvreté, et l'amélioration de la diffusion de l'information statistique. Ces domaines correspondaient aux préoccupations du moment telles qu'elles étaient identifiées par les directeurs des instituts nationaux de statistique des Etats membres.

Les premiers chantiers d'AFRISTAT ont concerné l'harmonisation des méthodologies de calcul des indices de prix dans les Etats membres et l'harmonisation des nomenclatures statistiques et des méthodes d'élaboration des comptes nationaux pour les besoins de l'intégration régionale. Des travaux spécifiques étaient également réalisés à la demande des Etats ou des partenaires techniques et financiers. A cela, il convient d'ajouter la formation continue des cadres nationaux, à travers des ateliers et séminaires sur des thèmes aussi variés qu'utiles à l'ensemble des bénéficiaires.

L'élaboration et l'adoption du Programme statistique minimum commun (PROSMIC), cadre de référence de développement de la statistique dans les Etats membres pour la période 2001-2005, a permis de mieux formaliser les interventions d'AFRISTAT dans six domaines prioritaires : coordination statistique, comptabilité nationale, conjoncture économique et sociale, diffusion statistique, statistiques sur les conditions de vie des ménages, et statistiques agricoles. C'est dans ces domaines que des actions de renforcement des capacités ont été

développées au cours du deuxième quinquennat de fonctionnement d'AFRISTAT avec l'appui de plusieurs bailleurs de fonds. Des acquis importants ont été réalisés dans les Etats membres grâce à l'expertise de qualité fournie.

AFRISTAT a su s'adapter aux priorités du moment. Ainsi, tout en mettant le PROSMIC en œuvre, une bonne partie de ses activités se sont orientées progressivement vers la mise en place de systèmes d'information cohérents pour le suivi et l'évaluation des politiques de développement, suite à l'orientation des politiques économiques vers la réduction de la pauvreté et le développement humain durable. Les priorités ont été données au suivi des DSRP, à la mise en œuvre des OMD et au développement des méthodes d'élaboration des systèmes d'information sur le marché de travail en collaboration avec les partenaires techniques et financiers. Avec le PNUD, un projet d'appui au suivi et évaluation des DSRP et des OMD a été mis en œuvre en 2004, et avec ACBF et le BIT un projet pilote d'amélioration de la qualité des statistiques du marché du travail a été exécuté pour appuyer cinq pays (Cameroun, Mali, Nigeria, Ouganda et Zambie) dans la mise en place de systèmes d'information sur le marché du travail. D'autres programmes et projets importants ont été montés avec les partenaires techniques et financiers (Banque mondiale, FMI, BAD et France) dans des domaines aussi variés que la diffusion des données, l'élaboration des métadonnées dans le cadre de la mise en œuvre du SGDD, les statistiques des prix et l'élaboration des comptes nationaux, la conjoncture économique, le développement des sites Internet dans chacun des Etats membres, etc.

L'objectif visé par ces appuis était d'aider les pays à assurer l'amélioration des systèmes nationaux de production et de diffusion des données socio-économiques et financières en vue de fournir régulièrement les indicateurs nécessaires à la mesure des progrès réalisés en matière de réduction de la pauvreté et de développement humain. Il s'agissait donc d'aider les Etats à assurer l'harmonisation, la cohérence et la coordination des systèmes nationaux de collecte, de traitement et d'analyse des données et de diffusion des résultats auprès de tous les acteurs et de renforcer leurs compétences dans ces domaines.

En dix ans d'activités, AFRISTAT a relevé les défis qui lui étaient opposés. Le premier, sans doute le plus important et qui ne figurait pas explicitement dans la liste de ses missions, était le décloisonnement des systèmes statistiques nationaux. En effet, grâce à des rencontres fréquentes d'experts et des responsables nationaux, la communication se fait plus facilement aujourd'hui et les bonnes pratiques sont mieux diffusées dans un cadre d'émulation qui permet des progrès notoires dans l'organisation et la production statistique. En deuxième lieu, l'action d'AFRISTAT a été bien ressentie dans la communauté statistique africaine comme un signe fort pouvant contribuer efficacement au développement de la statistique dans la région. Dans les autres domaines, malgré les difficultés tant du côté des Etats membres

que d'AFRISTAT, surtout en matière de mobilisation de ressources, des avancées ont été observées dans l'ensemble des domaines du PROSMIC.

Et maintenant, quelles stratégies pour capitaliser les succès passés et ouvrir de nouveaux chantiers pour la période 2006-2010 ?

La fin du PROSMIC a coïncidé avec le terme du premier fonds de capitalisation qui finance les activités d'AFRISTAT. Pendant les dernières années de la première décennie, de nouvelles demandes statistiques ont pressuré les systèmes statistiques nationaux. A ce titre, on peut citer la nécessité de mettre en place des systèmes d'information pour le suivi et évaluation des stratégies de réduction de la pauvreté et la mise en œuvre des OMD. Dans le même registre, on peut citer la rénovation des comptes nationaux ou celle des indices des prix à la consommation, l'amélioration des statistiques d'entreprises, la conduite des recensements de la population, le renforcement institutionnel des systèmes statistiques nationaux, l'appropriation de la démarche stratégique pour la réalisation des travaux statistiques, etc.

L'évaluation de l'action d'AFRISTAT des premières années en prélude au lancement de son deuxième cycle d'activités 2006-2015 a permis non seulement confirmé les résultats positifs enregistrés mais a donné l'occasion au Conseil des Ministres d'AFRISTAT de fixer de nouvelles orientations pour la prochaine décennie sur la base d'une nouvelle vision : faire de la statistique un outil incontournable dans la gestion des affaires publiques pour plus de bonne gouvernance et de démocratie.

Ces orientations se déclinent comme suit :

i) apporter un soutien et une assistance technique aux systèmes statistiques nationaux des Etats en matière d'organisation pour le développement de la statistique ainsi que dans le domaine de la formation ;
ii) contribuer au développement des systèmes d'information pour la conception, la mise en œuvre et le suivi et évaluation des stratégies de réduction de la pauvreté ainsi que pour la mise en œuvre des Objectifs du millénaire pour le développement ;
iii) apporter un appui aux Etats d'Afrique subsaharienne pour le renforcement des capacités de collecte, de traitement et d'analyse des données statistiques de base, et d'élaboration des synthèses statistiques et économiques ;
iv) développer et contribuer à développer les bases de données dans les Etats et renforcer les capacités de diffusion des données statistiques ;
v) contribuer à la recherche appliquée en vue de développer des méthodologies adaptées aux capacités des systèmes statistiques nationaux des Etats.

Sur la base de ces orientations, AFRISTAT s'est doté d'un programme de travail de moyen terme pour la période 2006-2010, le PSTA (Programme stratégique de travail d'AFRISTAT pour la période 2006-2010) dont l'objectif global est d'accompagner chacun des Etats membres dans la formulation, la mise en œuvre et le suivi d'une stratégie nationale de développement de la statistique en harmonie avec les autres stratégies nationales de développement.

Pour atteindre cet objectif, le PSTA se présente comme un plateau technique de compétences qu'AFRISTAT offre aux Etats d'Afrique subsaharienne tout en faisant ressortir un triple souci d'équilibre. En effet, le premier axe vise à apporter des appuis aux Etats pour créer un environnement politique et institutionnel propice à la production statistique ; le balancement entre les axes 2 et 3 traduit la volonté d'adapter la production statistique des Etats membres pour tenir compte de l'évolution des besoins générés par la bonne gouvernance, la décentralisation et le souci de lutter contre la pauvreté, sans délaisser la production d'informations indispensables aux politiques économique et budgétaire, aux stratégies de développement et au processus d'intégration régionale ; l'axe 4 vient compléter les axes 2 et 3 par le fait qu'il insiste sur la phase de livraison de la production statistique considérée comme étant un maillon faible ; enfin l'axe 5 traduit la prise de conscience du besoin pour AFRISTAT d'investir pour accroître sa capacité d'intervention ainsi que celles des Etats membres.

Le PSTA ne se contente pas de consolider sa position d'institution de renforcement de capacités dans le domaine des statistiques économiques qui a été le principal domaine de concentration de ses appuis techniques. Il développe une vaste ambition en matière de statistiques sociales et démographiques.

C'est une nouveauté qui s'intègre bien dans le contexte actuel animé par la recherche des solutions pour la réduction de la pauvreté et la conduite de la série 2010 des recensements de la population et de l'habitat. En effet, AFRISTAT voudrait s'impliquer plus activement dans cette voie au regard de l'importance que revêtent les questions de population dans la vie d'un pays.

L'axe stratégique n°2 du PSTA répond ainsi aux sollicitations de plus en plus nombreuses des Etats en matière développement des systèmes d'information pour la conception, la mise en œuvre et le suivi et l'évaluation des stratégies de réduction de la pauvreté ainsi que pour la mise en œuvre des Objectifs du Millénaire pour le développement (OMD). Pour que les stratégies et politiques de réduction de la pauvreté atteignent leurs objectifs, elles doivent reposer sur une connaissance approfondie préalable et régulièrement actualisée de la population, notamment ses caractéristiques démographiques et socio-économiques.

3. Il s'agit d'un cadre méthodologie qu'AFRISTAT a élaboré en mars 2005 et mis à la disposition des pays (Cf. HYPERLINK "http://www.afristat@org" www.afristat@org) .

L'exigence essentielle est de répondre aux besoins immédiats pour la formulation et le suivi des DSRP notamment la définition d'indicateurs, l'amélioration de données sur les conditions de vie des ménages, le renforcement du suivi des politiques, programmes et projets. Il s'agira donc pour AFRISTAT d'appuyer les pays pour : (i) l'adoption et la mise en œuvre du cadre de référence et du support méthodologique minimum pour la mise en place de systèmes d'information pour le suivi des DSRP et des OMD[3] ; (ii) la production régulière des données de structures et d'évolution de leur population ; (iii) le développement des systèmes statistiques sectoriels (éducation, santé, emploi, développement rural) ; (iv) la mise en place des systèmes d'informations géoréférencées appropriées et des bases de données, outils essentiels pour l'analyse de la pauvreté relative et des inégalités.

AFRISTAT et la statistique africaine

Le concept AFRISTAT, créé depuis une dizaine d'années, ne peut se consolider en dehors de l'ensemble du système statistique de l'Afrique. Au départ, orienté vers les Etats membres, AFRISTAT et ses partenaires se sont vite rendu compte que le rôle de cette organisation dépassait ses frontières naturelles et qu'elle devait s'intégrer profondément dans le système statistique africain et s'impliquer avec conviction dans les chantiers statistiques africains. C'est ce qu'il essaye de faire.

Aujourd'hui, AFRISTAT se nourrit d'une autre conviction : faire des émules et voir plusieurs AFRISTAT se créer. L'expérience actuelle met en relief l'importance de la mise ne place d'un dispositif de proximité de renforcement de capacités dans la plupart des sous-régions : les contacts et les échanges sont plus réguliers et le bénéfice que l'on tire est efficacement capitalisé par les bénéficiaires. Le "scaling-up" de ce concept en Afrique est possible à condition que les grands ensembles d'intégration économique et économique, principaux bénéficiaires des résultats de production et d'harmonisation statistique, en prennent conscience de l'importance des enjeux. Il ne s'agit de remplacer les organisations régionales qui supportent aujourd'hui l'activité statistique en Afrique, mais de faire en sorte que leurs initiatives soient mieux mises en œuvre avec l'appui d'organisations sous-régionales plus adaptées et dont les conditions de travail peuvent être à tout point de vue plus souples donc faciles à déployer sur le terrain.

AFRISTAT a 10 ans. Ce n'est pas assez pour une institution pour titrer un bilan exhaustif. Mais, il est important de s'en souvenir pour poursuivre l'action avec encore plus d'abnégation avec pour objectif la réalisation d'un lendemain encore plus riche de succès que la veille.

The Eastern Africa Statistical Training Centre

Vitalis E. Muba[1]

Summary

The Eastern Africa Statistical Training Centre is one of the few training institutions in Anglophone Africa providing practical statistical training at sub-professional level. From a humble beginning of serving the three East African Common Services member states, it now serves seventeen English speaking countries of Eastern and Southern Africa. Being an Executive Agency of Tanzania Government, it has the autonomy to quickly respond to changes in the training needs of the user countries. Its programmes are widely recognised and interested graduates can join reputable Universities for further education and career development.

Key words

Anglophone, Eastern and Southern Africa, Sub-professional, Practical, Responsive.

Résumé

Le Centre de formation en statistique de l'Afrique de l'Est est l'une des rares institutions de formation en Afrique anglophone qui offre une formation pratique en statistique au niveau technicien. Ayant commencé de façon modeste en couvrant les trois Etats membres des Services Communs de l'Afrique de l'Est, le Centre sert maintenant les dix-sept pays anglophones de l'Afrique de l'Est et australe. Tout en étant une institution de l'administration publique Tanzanienne, le centre dispose de l'autonomie nécessaire pour répondre rapidement aux changements des besoins en formation des pays utilisateurs. Ces programmes sont largement reconnus et les diplômés qui le désirent peuvent facilement accéder aux universités de renom pour une formation plus approfondie et le développement de leur carrière.

1. Background

In 1965 the Eastern Africa Statistical Training Centre (EASTC) was set up in Dar es Salaam, Tanzania, as a modest statistical training centre to serve Kenya, Tanzania and Uganda. It was a joint project of the Eastern African Common Services, predecessor of the East African Community, and the United Nations Development Programme. In 1972 it became the sole responsibility of the East African Community. Upon the collapse of the East African Com-

1. Dr Vitalis E. Muba is the Chief Executive Officer of the Eastern Africa Statistical Training Centre, P. O. Box 35103, Dar es Salaam, Tanzania. easte@ud.co.tz

munity in 1977, the Statistical Training Programme for Africa allocated ten more countries to be served by the EASTC. They were Botswana, Ethiopia, Lesotho, Malawi, Mauritius, Seychelles, Somalia, Sudan, Swaziland, and Zambia. Over time, Eritrea, Namibia, South Africa, and Zimbabwe were added to the list, bringing the total of user countries to seventeen.

2. Governance

After some years of consultation between user countries, the Eastern Africa Statistical Training Centre (EASTC) was established as a Tanzanian institution with a regional character in 1994 by an Act of Tanzania Parliament. Tanzania and user countries signed a protocol (memorandum of understanding), which allowed user countries access to the Centre. Under the ongoing public service reform programme, the EASTC was transformed into an executive agency with effect from May 2002. The Centre is governed by a Ministerial Advisory Board comprising public servants in Tanzania and chaired by the Permanent Secretary of the ministry responsible for statistics while a Regional Advisory Board, consisting of heads of statistical services in user countries and co-opted organisations, is mandated to provide technical and regional advice.

3. Vision

The vision of EASTC is to be a regional statistical resource centre of excellence providing statistical training, continuing professional development, research and consultancy in statistics.

4. Mission of the EASTC

The mission of the EASTC is to promote the production and use of high quality data for evidence-based decision making by training producers and users of statistics and providing statistical consultancy and research services to the region.

5. EASTC training program

The EASTC offers two regular courses in statistics at sub-professional levels: the certificate course takes ten months and the diploma course takes an additional ten months after the certificate course. Academic sessions run from October to July. Among the subjects taught are Statistical Theory and Methods. Mathematics is taught as a tool for studying Statistics. Statistical Computing is taught as a working tool for statisticians. Economics is taught as an area of application for Statistics

The approach to training emphasises practical applications, using both individual and group work. It builds on trainees' own work experiences which they are encouraged to share. The centre handles its trainees as adults. The methods of delivery aim at assisting adult learners to achieve course objectives. Trainers are facilitators of the process.

While the bulk of trainees are nominees of National Statistical Offices, candidates from other institutions, public and private, are also accepted. The Centre provides statistical training to non-statistical professionals whose day-to-day activities require some knowledge of statistics. It also provides continuing education to practising statistical professionals to apprise them of ongoing developments. The courses allow for career development in diverse fields where a strong foundation of statistics is essential.

To date the regular courses has enrolled 1,238 certificate level trainees and 2,161 diploma level trainees from 19 countries. It has served all the user countries except Eritrea, Somalia and Mauritius. In addition to the user countries, trainees were also enrolled from Burundi, the Gambia, Liberia, Nigeria and Sierra Leone.

Though enrolment levels fluctuate from year to year, there has been an upward trend since 2001/02(Table below) The proportion of women has risen to above 30% and that of privately sponsored trainees has almost reached the 30% mark.

Table: Regular Course Enrollment 2001/02- 2004/05

Course	Year														
	2001/02			2002/03			2003/04			2004/05			2005/06		
	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
Certificate	8	20	**28**	12	20	**32**	12	27	**39**	13	28	**41**	6	22	**28**
Diploma	2	7	**9**	6	21	**27**	6	18	**24**	10	21	**31**	9	20	**29**
Total	10	27	**37**	18	41	**59**	18	45	**63**	23	49	**72**	15	42	**57**

F = Female M = Male T = Total

6. Links with other Institutions

The Centre has a link with The Royal Statistical Society of the United Kingdom. The Certificate level graduates may get exemption from Higher Certificate in Statistics (formerly Stage I) of the Institute of Statisticians (U.K), currently the Royal Statistical Society (U.K). The Diploma level graduates may get exemption from the two Statistical Theory and Methods papers of the Graduate Diploma in Statistics (formerly Stage II and III).

EASTC also has collaborative working arrangements with institutions sharing common interests such as the Statistics Department of the University of Dar es Salaam, Institute of Statistics and Applied Economics, Makerere University, Uganda, InWent , Munich Centre for Economic, Environmental and Social Statistics, University of Kent, etc. Diploma holders from EASTC can be admitted at the University of Dar es Salaam to pursue B.A degree programs. They may also join the Institute of Statistics and Applied Economics, Makerere University, Kampala to pursue either B.Stat., or BSc (Statistics. and Economics) degree programs.

A number of United Kingdom universities also admit EASTC Diploma graduates into their Postgraduate Certificate and Postgraduate Diploma courses in Statistics. These together with those who qualify in the Graduate Diploma courses may then proceed to undertake postgraduate degree studies.

7. Trainers

The Centre has a small core group of competent resident trainers, with two holding Ph.Ds, four with masters degrees and two with first degrees. They work closely with the National Bureaux of Statistics in user countries to keep abreast with what is happening in the field. Individuals from collaborating institutions (national, regional and international) who have rare experiences are invited to the Centre to share their experiences when needed. The management ensures that trainers are highly competent in theoretical statistics as well as practical aspects and that the methods taught are in accordance with latest relevant standards.

8. Short and tailor-made courses

Besides regular courses, the Centre also offers commissioned local and regional courses. Commissioned regional courses conducted in the recent past include International Comparison of Prices (ICP-Africa) statistical tool pack at the request of SADC secretariat and AfDB, Adaptation of the System of National Accounts 1993 version (SNA93) for the Anglophone African region, Core Welfare Indicators Questionnaire (CWIQ) surveys for Anglophone Africa, Archiving of statistical surveys using compact diskettes at the request of the World Bank and Food and Agricultural Organisation. Commissioned local courses conducted in the recent past include Operation of the Local Government database at the request of the Local

Government Reform Programme, Basic statistics for users and producers of statistics at the request of a number of clients, Statistics of the Environment attended by a variety of clients, Statistical data analysis, report writing and dissemination at the request of the National Bureau of Statistics, Statistical computing attended by a variety of clients and Local Government Monitoring and Evaluation Database at the request of the Local Government Reform Program.

9. Challenges

During the preparation of the 2005/6-2007/08 strategic plan, the EASTC has identified four major challenges which it plans to address. These are:

- Old fashioned training programmes and old fashioned learning and living environment
- Non-recognition of EASTC potential by key stakeholders
- Weak link with similar institutions
- Scarcity of scholarships for participants.

A financial proposal has been prepared that is going to be used in soliciting funds from user countries and development partners to finance the upgrading of the infrastructure and a fellowship fund for sponsoring participants to the EASTC programmes. An institutional promotion and marketing drive is going to be launched to promote the visibility of EASTC and its links with similar institutions.

ENSEA of Abidjan: In the heart of Statistical Training in Francophone Africa

Koffi N'Guessan and Bassirou Chitou[1]

Summary:

The purpose of this article is to introduce the reader to the "Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA) of Abidjan, Côte d'Ivoire" . The article highlights our training program, our resources, our strategies for quality training and regional integration. Our goal here is to enable anyone in need of statistical training, or applied research, or survey to find an effective environment to come to. We would like to foster cooperation in various area of applied statistics and economics.

Key Words

ENSEA, training resources, AT, AD, ITS, ISE.

Résumé

Le but de cet article est de présenter au lecteur, l'Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA) d'Abidjan, Côte d'Ivoire. L'article met l'accent sur le programme de formation, les ressources, les stratégies de l'Ecole concernant la qualité de la formation et l'intégration régionale. Notre but ici est de permettre à tous ceux qui sont intéressés par la formation statistique, la recherche appliquée, le traitement des enquêtes à mieux nous connaître. Nous voudrions stimuler la coopération dans les divers secteurs des statistiques et des sciences économiques appliquées.

1. Introduction

Statistics may be defined as numbers language. And the role of a statistician is to crunch, analyze, and give meaning to numbers for decision making and policy advise. Thus, a statistician may play a key role in many areas such as economics, finance, actuarial, population studies, as well as research and development.

A statistician is usually skilled to performed a variety of tasks from simple to complex. He may describe and summarize information contained in a huge data set. At other time, he

1. ENSEA, 08 BP 3 Abidjan 08, Côte d'Ivoire; nguessan@ensea.ed.ci

may draw inference from a sample to a whole population. Still, other time, he/she may build models to predict future values, or to suggest effective solution to uncertainty. Therefore, it is important for businesses to have statisticians on board for efficient and accurate decision making.

It is in this regard that "l'Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA)" developed training programs to cater for the need of private businesses, public administrations, civil society, and international organizations.

The purpose of this article is to introduce the reader to ENSEA, its training and research resources, its strategies for quality training, its vision of regional integration through statistical training, and its perspectives.

2. The Institution: Who Are We

Created in 1962 as the "Ecole de Statistique d'Abidjan" (ESA) with only one training Program, the school grew up steadly to become in 1982 ENSEA with 3 training Programs. A great momentum was reached with the addition of the training program For statistical engineer in 1987 and a milestone was set in 2004 with the DESS Program for professionals. Our mission may be summarized as follows

- To train highly effective statisticians skilled in addressing economic and social issues in a satisfactory manner, in providing policy advice, in participating in policy analysis and decision making
- To carry out research having immediate impact on the creation of wealth and the improvement of economic and social condition of west Africa countries

ENSEA vision is to be the **leader** in statistical and economic training in west Africa, to **provide** the job market **with young**, **dynamic**, and **excellent** managers with the desire to empower African states in their quest for development, and to provide African scholars with a convenient center for research

3. ENSEA Training Resources

3.1. Training Program

To ensure quality training, ENSEA developed a training program that combines strong theoretical knowledge with practical application through internship in businesses, public administrations, civil socialy, and international organizations. This training program leads to five types of degree. The description of the degree along with the admission requirements are as follows:

Table 1: Training programs at ENSEA

Degree	Duration	Position or Title	Admission Requirement
AT*	1 year	• Data Collector • Statistics Assistant	• A Level in Science • 22 years old or less
AD*	2 years	• Number Cruncher • Survey Supervisor	Either • Baccalaureate in Science • 22 years or less Or • AT degree
ITS*	2 years	• Statistics Analyst • Statistics Designer	Either • 2 years of college math or Econ • 23 years or less Or • AD degree • 40 years old or less
DESS*	1 year	• Statistical Analyst, specialized in development issues	Either • 4 years of Econ or Management Or • ITS degree Or • Equivalent Diploma

ISE*	3 years	• Statistics Manager • Statistics and Economics Advisor • Statistics Consultant	Either • 27 years old or less • 2years of prep math or prep Econ Or • 27 years old or less • 4 years of Econ or Management Or • ITS degree • 40 years old or less

*AT = Agent Technique, AD = Adjoint Technique, ITS = Ingénieur des Travaux Statistiques
ISE = Ingénieur Statisticien Economiste, DESS = Diplôme d'Etude Supérieure Spécialisée

3.2. Training Facilities

ENSEA offers to its trainees the following:

- 14 regular classrooms with 10 to 50 seats
- 1 auditorium with more than 250 seats
- 2 computer labs
- 1 modern library with hundreds of titles
- Internet connection
- 2 students housing facilities
- 1 cafeteria
- 1 modern health center
- 15 full time and 80 adjunct faculty
- 25 staff and support employees
- A management with clear vision and mission

4. Strategies for Quality Training

To ensure the quality of its training, ENSEA uses a combination of strategies such as admission requirements, faculty hiring policy, approved curriculum, practical internship, and applied research

In fact, ENSEA admitted only the best students from all other francophone African countries who have successfully passed the entrance examination with at least 12 on a 20 points scale. The entrance examination is conducted by INSEE of Paris, France, for three statistical training centers which are ENSEA of Abidjan, ISSEA of Yaoundé, and ENEA of Dakar.

In addition, ENSEA faculty are recruited among the best instructors from the academia, the industry, as well as alumni. ENSEA is planning to have a language lab to enable English stu-

dent to learn and follow their training in French. ENSEA is training its faculty in English in order to allow them to teach some of their courses in English.

As a graduation requirement, each student must complete a 3 to 6 months internship in a business, a public administration, an NGO, or an international organization. The purpose of this internship is to allow each student to put into practice the theoretical tools he or she learnt.

ENSEA also conducts each year a field survey in order to teach student the good skills of data collection. ENSEA carries out applied research in the area of poverty reduction, population, reproductive health, sexual behavior (HIV / AIDS), agriculture, and local development. The statistical analysis of these surveys help in decision making and policy advice.

ENSEA has established partnership with many scientific communities such as:

ENSAE, Paris: Curriculum development

IRD, France: co-research in applied economics and population studies

DITRAME Plus, France: research on HIV transmission from mother to child

INED-CEPED, France: research on population issues

INSEE, France : entrance examination support

IFORD, Cameroon: research on population and admission exam

5. Regional Integration Through Statistical Training

Each year, fifteen to twenty nationalities are present at ENSEA. Students from Benin, Togo, Burkina, Cameroon, Gabon, RDC, and Madagascar mingle together for one to three years. They build network of friendship which last long after graduation. This in turn facilitate regional integration.

6. Way Forward

In order to ensure good ties with the industry and reinforce regional integration, ENSEA has planned for 2005 to 2010 the following:

- Open up the training to English and Portuguese speaking countries of Africa;
- Assist businesses and public administration in creating statistics department or a research and development department
- Design an effective research program in economics, applied statistics, and population studies.

7. How to Contact Us

Postal Address

ENSEA
08 BP 3 Abidjan 08
Abidjan, Côte d'Ivoire

Phone and Fax

Phone: (225).22.44.08.40 or(225).22.44.41.15
Fax: (225).22.44.39.88

Electronic Address

E-Mail: **ensea@ensea.ed.ci**
Web: www.ensea-ci.org

Editorial policy

The African Statistical Journal was established to promote the understanding of statistical development in the African region. It focuses on issues related to official statistics as well as application of statistical methodologies to solve practical problems of general interest to applied statisticians. Of particular interest will be exposition of: how statistics can help to illuminate development and public policy issues like poverty, gender, environment, energy, HIV/AIDS, etc; development of statistical literacy; tracking national and regional development agenda; development of statistical capacities and effective national statistical systems; and the development of sectoral statistics e.g. educational statistics, health statistics, agricultural statistics, etc.

In addition to individual academic and practicing statisticians, the Journal should be of great interest to a number of institutions in the region including National Statistical Offices, Central Banks, research and training institutions and sub-regional economic groupings, and international development agencies.

The Journal serves as a research outlet and information sharing publication among statisticians and users of statistical information mainly in the African region. It publishes, among other things:

- articles of an expository or review nature that demonstrate the vital role of statistics to society rather than present technical materials,
- articles on statistical methodologies with special emphasis on applications,
- articles about good practices and lessons learned in statistical development in the region,
- opinions on issues of general interest to the statistical community and users of statistical information in the African region,
- notices and announcements on upcoming events, conferences, calls for papers, and
- recent statistical developments and anything that may be of interest to the statistical community in the region.

The papers which need not contain original material, should be of general interest to a wide section of professional statisticians in the region.

All manuscripts will be reviewed and evaluated on content, language and presentation.

Ligne éditoriale

Le Journal statistique africain a été établi pour favoriser la compréhension du développement statistique dans la région africaine. Il se concentre sur des questions liées aux statistiques officielles aussi bien que l'application des méthodologies statistiques pour résoudre des problèmes pratiques d'intérêt général pour les statisticiens de métier. L'intérêt particulier est de montrer comment les statistiques peuvent aider à mettre en exergue les problèmes de développement et de politique publique tels que la pauvreté, le genre, l'environnement, l'énergie, le VIH/ SIDA, etc. ; le développement de la culture statistique ; la prise en compte des questions de développement régional et national; le développement des capacités statistiques et des systèmes statistiques nationaux efficaces; et le développement des statistiques sectorielles comme les statistiques d'éducation, de santé, des statistiques agricoles, etc.

En plus des universitaires et des statisticiens de métier, le Journal devrait revêtir un grand intérêt pour les institutions de la région, notamment les offices nationaux de statistiques, les banques centrales, les instituts de recherche et les organisations économiques sous-régionaux et les agences internationales de développement.

Le Journal constitue un document de recherche et d'information entre les statisticiens et les utilisateurs de l'information statistique, principalement dans la région africaine. Il publie entre autres :

- des articles sur le plaidoyer en matière de statistique qui démontrent le rôle essentiel des statistiques dans la société plutôt que la présentation des outils techniques,
- des articles sur les méthodologies statistiques, avec un accent particulier sur les applications,
- des articles sur les meilleures pratiques et les leçons tirées de la région,
- des avis sur des questions d'intérêt général pour la communauté statistique et les utilisateurs de l'information statistique dans la région africaine,
- des informations et des annonces sur les prochains événements, les conférences, les appels à contribution pour des papiers, et
- les développements statistiques récents et tout autre aspect susceptible d'intéresser la communauté statistique dans la région.

Les articles, qui n'ont pas besoin de contenir du matériel original, devraient intéresser une grande partie des statisticiens professionnels dans la région.

Tous les manuscrits seront passés en revue et évalués sur le contenu, la langue et la présentation.

NOTES TO AUTHORS

Submission

Manuscripts in English or French should be sent by email to the Co-Chairpersons, Editorial Board, at c.lufumpa@afdb.org and bkiregyera@yahoo.com with a copy to statistics@afdb.org. and africanstat.journal@ubos.org

Title

The title should be brief and specific. The title page should include the title, the author's name, affiliation and address. The affiliation and address should be given as a footnote on the title page. If the manuscript is coauthored, the same information should be given for the coauthor(s).

Summary, Key Words and Acknowledgements

A short summary of about 150 words must be included at the beginning of the manuscript together with up to 6 key words used in the manuscript. The key words should not repeat words used in the title. Acknowledgements, if any, should be inserted at the bottom of the title page.

Sections

Sections should be numbered. Subsections may be used.

Tables and Figures

Tables and figures should be numbered and given a title. These should be referred to in the text by number, not by page or indications such as "below" or "above".

Equations

Any equations in the paper should be numbered. The numbers should be placed to the right of the equation.

References

A list of references should be given at the end of the paper. The references should be arranged alphabetically, and for the same author chronologically. The references should give author's name and year of publication, title and details of the publication – name of Journal. Use a,b,c, etc to separate publications of the same author in the same year.

Examples

Kish, L. (1988a). Multipurpose Sample Designs, Survey Methodology, 14, 19-32.

Kish, L. (1988b). A Taxonomy of Elusive Populations, Proceedings of the Section on Survey Research Methods, American Statistical Association, 44-46.

Herzog, A.R. and Dielman, L. (1985). Age Differences in response Accuracy for Factual Survey Questions, Journal of Gerontology, 40, 350-367.

In the text, the author's surnames only should be given, followed by the year of publication in parentheses e.g. Kish (1988a). For three or more authors, only the first surname should be given, followed by et al. Abbreviations ibid, opt. cit. should not be used.

NOTES AUX AUTEURS

Soumission

Les manuscrits en anglais ou en français doivent être envoyés aux présidents du comité de rédaction par email aux adresses suivantes c.lufumpa@afdb.org et bkiregyera@yahoo.com avec copie à statistics@afdb.org et africanstat.journal@ubos.org

Titre

Le titre devrait être bref et détaillé. La page de titre doit inclure le titre du papier, le nom de l'auteur, l'affiliation et l'adresse. L'affiliation et l'adresse doivent figurer comme note de bas de page. Si le manuscrit est produit par des coauteurs, la même information doit être donnée pour les coauteurs.

Résumé, mots clés et reconnaissance

Un résumé court d'environ 150 mots doit être inclus au début du manuscrit ainsi qu'environ 6 mots clés utilisés dans le manuscrit. Les mots clés ne doivent pas répéter les mots utilisés dans le titre. Les signes de reconnaissance, s'il y en a, doivent être insérés en bas de la page titre.

Section

Les sections doivent être numérotées. Des sous-sections peuvent être employées.

Tableaux et graphiques

Les tableaux et les graphiques doivent être numérotés et comporter un titre. Ceux-ci devraient être mentionnés dans le texte par le nombre correspondant, et non par une indication de page ou par d'autres indications telles que "ci-dessous" ou "au-dessus de".

Équations

Toutes les équations dans le papier doivent être numérotées. Les nombres doivent être placés à la droite de l'équation.

Références

Une liste de références doit être fournie à la fin du papier. Les références doivent être classées par

ordre alphabétique, et pour le même auteur chronologiquement. Les références doivent donner le nom de l'auteur et l'année de publication, le titre et autres détails concernant la publication. Employer a, b, c, etc.. pour séparer les publications du même auteur au cours der la même année.

Exemples

Kish, L. (1988a). Multipurpose Sample Designs, Survey Methodology, 14, 19-32.

Kish, L. (1988b). A Taxonomy of Elusive Populations, Proceedings of the Section on Survey Research Methods, American Statistical Association, 44-46.

Herzog, A.R. and Dielman, L. (1985). Age Differences in response Accuracy for Factual Survey Questions, Journal of Gerontology, 40, 350-367.

Ne doivent figurer dans le texte que les noms de famille des auteurs, suivi de l'année de la publication entre parenthèses par exemple Kish (1988a). Pour trois auteurs ou plus, seulement le premier nom de famille devraient être donnés, suivi des autres. Les abréviations, comme ibid, opt, cit ne doivent pas être employées

Acknowledgements

The Editorial Board would like to express its appreciation to all authors who submitted papers for publication in the journal and to the following people who reviewed the papers that are printed in this issue of the journal:

Dr. Emmanuel Ngwe, Professor, Institut de Formation et de Recherche Démographique, yaounde, Cameroon.

Dr. Israel Sembajwe, Team Leader, Population and Social Development Sustainable. Development Division, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia.

Mr. Roger Stern, Principal Biometrician, Statistical Services Centre, The University of Reading, United Kingdom

Dr. Sylvester Young, Director, Statistics Division, International Labour Organization, Geneva, Switzerland

Ms. Jill Fletcher, DFID Statistics Advisor, Uganda Bureau of Statistics, Kampala, Uganda

Mr. Tim Merchant (retired), Formerly with World Bank, U.K.

Dr. Jeremiah Banda, Department of Economic and Social Affairs, UN Statistics Division, New York, N. Y.

Remerciements

Le comité de rédaction voudrait exprimer sa gratitude à tous les auteurs qui ont soumis des papiers pour la publication dans le journal et aux personnes suivantes qui composent le comité de lecture des articles qui sont publiés dans cette deuxième édition du journal :

Emmanuel Ngwe, Enseignant, Institut de Formation et de Recherche Démographique, yaoundé, Cameroun

Israel Sembajwe, Chef d´équipe, Population et développement social. Development Division, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia.

Roger Stern, Biometricien Principal, Statistical Services Centre, The University of Reading, United Kingdom

Sylvester Young, Directeur, Division statistique, Organisation internationale du travail, Genève, Suisse

Jill Fletcher, Conseillère en statistique, DFID, Bureau des statistiques de l'Ouganda, Kampala, Ouganda

Tim Merchant (retraité), Précédemment fonctionnaire de la Banque Mondiale, Royaume Uni.

Jeremiah Banda, Division statistique des Nations Unies New York, N.Y, Département des affaires économiques et sociales.

Annonces

Lancement du Journal statistique africain

Le Vice-Premier ministre ougandais RT. Hon. Henry Muganwa Kajura lance le Journal statistique africain à Kampala le 18 novembre 2005

Announcements

Launch of the African Statistical Journal

The Second Deputy Prime Minister, RT. Hon. Henry Muganwa Kajura launches the African Statistical Journal in Kampala, Uganda on 18 November 2005

Upcoming Events / Evénements futurs

April 2006 / Avril 2006

1. National Accounts and Data Validation Workshop - ICP meeting for SADC countries Mbabane, Swaziland 24-Apr-06 to 28-Apr-06

May 2006 / Mai 2006

2. ICP-COMESA Data Validation Workshop , Nairobi 8-May-06 to 12-May-06

3. Supervision mission to Morocco and Sub-Regional Workshops on Price Data Quality Control for Maghreb RMCs, Rabbat, 29-May-06 to 2-Jun-06

June 2006 / Juin 2006

4. Atelier de Validation des données (Prix et Comptabilité Nationale) organisée avec AFRISTAT

5. ICP-ECOWAS Data Validation Workshop, Accra 26-Jun-06 to 30-Jun-06

6. NSDS-ECOWAS Countries Workshop, Accra 21-Jun-06 to 23-Jun-06

7. NSDS-COMESA Countries Workshop, Lusaka 14-Jun-06 to 16-Jun-06

July 2006 / Juillet 2006

8. Statistical Literacy & MDG Monitoring Francophone Workshop, Ouagadougou