

## SURVEYS, ANALYSES, MODELLING AND MAPPING



SAMM is a cross-cutting entity that brings together the HSRC's capacity in surveys, quantitative and qualitative analyses, geographical information systems (GIS), statistical and econometric modelling, and data management. It supports the organisation's move from previous fixed research groups and disciplines to flexible, user-driven and responsive Research Programmes. SAMM reinforces the HSRC's vision of more relevant and comprehensive social research.

The Programme was established during the latter half of 2001 and has grown to seventeen research staff - five with PhDs - and three office administrators. Three research appointments were made during 2002/03, and the appointment of another two researchers is imminent in the surveys and statistics sections respectively.

### Current and recently completed projects

SAMM has developed an accurate and complete **master sample** frame, based on statistics gathered from the 2001 Census. The rationale is to establish a programme of longitudinal social survey research within the HSRC. The master sample consists of 1 000 Census enumerator areas, mapping and listing all the households in each area. Eight to ten households in each enumerator area are then identified for inclusion in the sample for a specific project, and are visited and interviewed on successive occasions. Field teams use a Geographical Information System (GIS) that provides digitised maps integrated from satellite images, aerial photography, and ground-based maps of sites to locate and reference the enumerator areas and the households. Where necessary, this is supplemented by hand-held global-positioning equipment (GPS) that allows fieldworkers to identify spatial co-ordinates to reach pre-specified dwelling units - especially in rural and informal settlements.

SAMM assisted the KM Research Programme with the **National Research and Development Survey**. The Department of Science and Technology commissioned the study. The purpose of the study was to produce a set of internationally compatible indicators for monitoring and evaluating inputs into research and development in the country. Researchers from SAMM compiled registries, survey designs, fieldwork plans and resource plans for the project.

SAMM conducted a **baseline survey of basic adult literacy programmes**. The study targeted disadvantaged communities in the Presidential nodal areas to determine literacy levels; the

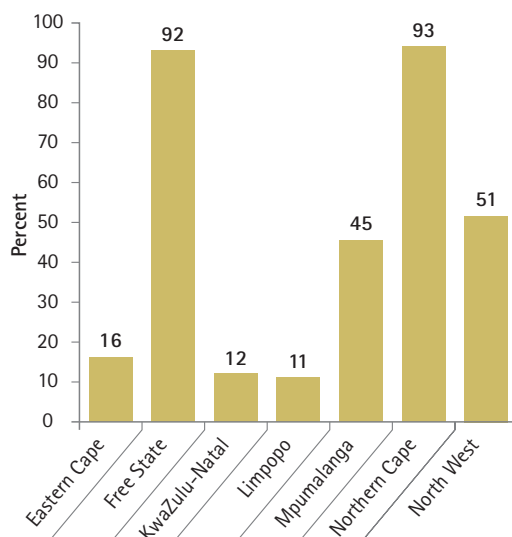


Figure G: Pay points with permanent building structures, from the Minimum Data Sets (MDS) analysis on ageing in South Africa



need for basic adult literacy; infrastructure that could be used to conduct the literacy classes; and to identify community development projects for newly literate adults. Data was collected from 59 communities and it was found that community members regarded being literate as a pathway to a better quality of life. Obstacles to attending literacy classes hinged mainly on time and financial constraints, transport problems, health and age problems.

SAMM was responsible for certain **data management** aspects of research conducted within other HSRC Research Programmes. For instance, SAMM was involved in the 2002 Nelson Mandela/HSRC study of HIV/AIDS; a study on the impact of HIV/AIDS on the health sector; the South African National Literacy Initiative (SANLI); the Independent Schools' Questionnaire; and the Quality Learning Project.

The HSRC's **public opinion surveys programme** has been significantly enhanced by the introduction of repeated, cross-sectional and panel components to the previously *ad hoc* survey designs. Started in 2002, new conceptually and methodologically robust surveys cater for the needs of HSRC researchers and external clients (especially Government). The HSRC survey programme will consist of four quarters.

<b>Quarter A:</b> Nelson Mandela/HSRC study of HIV/AIDS	Panel
<b>Quarter B:</b> South African Social Attitudes Survey (SASAS)	Sequential cross-sections/panel
<b>Quarter C:</b> Client modules Public sector/parastatals/private sector	Sequential cross-sections/ <i>ad hoc</i> /panel
<b>Quarter D:</b> Specialised modules from HSRC research components e.g. education, family, migration, poverty	Panel and/or sequential cross-sections

The Nelson Mandela/HSRC HIV/AIDS Prevalence study will become an annually conducted panel study. The first South African Social Attitude Survey (SASAS) will be conducted in 2003, and will focus on attitudinal issues, involving a combination of a sequential cross-sectional and panel design. Modules for 2003 will comprise questions on democracy, poverty, elections, education and health, communications, identity, generational and gender attitudes and domestic violence, a demographic module, and the International Social Science Programme's 2003 module on National Identity. Each survey will be designed to yield a representative sample from households geographically spread across the nine provinces. Samples will either be drawn from the HSRC's master sample, or will be drawn anew.

Together with Research Surveys and Simeka Consultants, SAMM has embarked upon a **12-month tracking study of public views** for the Government Communication and Information System (GCIS) on Government performance and service delivery, awareness of news stories, and commonly discussed issues. Findings from this study will be of particular pertinence as the first democratic Government approaches the end of its first ten years in office.

South Africa's cities are both centres of economic growth and innovation and agglomerations where poverty is rife and discrepancies stark. Strategies for the development of policies on growth and equity require serious debate and analysis by the South African research community. It is against this background that the HSRC proposed a project that will focus on urban-based research around the more specific issues of local economic development, urban renewal, transportation, poverty, HIV/AIDS, city governance and management, institutional transformation, and urban indicators. The **National Urban**



**Research Initiative (NURI)** is based at the HSRC.

SAMM also recently established a dedicated and coherent programme of urban research called the **Urban Studies Unit**. The unit recognised the contributions HSRC researchers can make to debates on urban development in South Africa, including policy interventions. The unit will focus on issues ranging from local economic development, to urban renewal, to local competitiveness. Four appointments to the unit were made recently, and an intense programme of research will commence in July 2003.

A study on **black economic empowerment (BEE) in the ICT sector** will determine the extent of progress in all aspects of

BEE in the information, communications and technology sector, including corporate ownership and governance, employment equity, skills development, investment in enterprise development and corporate social responsibility. The study is being conducted in collaboration with three Johannesburg-based companies: Empowerdex, Everest and MBM Change Agents.

The HSRC has been encouraged to improve its strategy to effectively disseminate research information. The intention of the **web dissemination project** was to use innovative approaches, such as the use of web interactive mapping and cross tabulation tools, new methods of analysis and modelling, and CD-Rom products to disseminate the HSRC's information. Ultimately, information emanating from research done in all HSRC Research Programmes will be catered for by this project. A democracy and governance CD-Rom forms part of this project and the atlas will aim to analyse the development of democracy and governance in South Africa, based on a pre-identified set of variables/indicators used in atlases elsewhere in the world. The project leader was Johann Fenske and the project was completed in March 2003.

The HSRC won a tender from the Department of Health (DoH) to conduct an analysis on **Minimum Data Sets (MDS) on ageing** in South Africa. This research will identify reliable information and provide input into the WHO policy on the aged. The aim of the project was to identify accurate information sources on the aged population, and to evaluate indicators associated with issues related to the aged. The findings suggested that the DoH should consider new indicators, because the original ones were too long and not definitive enough. A myriad of data sources were identified, but a lot of work still had to be done to extract the data for indicators. All of the data sets were archived and placed in a GIS format. The HSRC's GIS Centre made certain recommendations to the client, which will feed into the WHO MDS project. The project leader was Craig Schwabe and the project was completed in March 2003.

The Universal Service Agency (USA), which regulates **access to telecommunication in South Africa**, decided on a GIS system as a decision-making tool for the effective and efficient provision of access to telecommunication facilities and services, especially in rural areas. A consortium, led by the GIS Centre, developed a GIS system which would assist in answering supply and demand questions regarding telecommunication. The information is displayed on a map. The project leader was Craig Schwabe and the project was successfully completed in December 2002.

The HSRC formed part of a consortium tasked to **develop a**



Aerial photograph of households selected for the master sample

**GIS for the Telecommunication Business Unit (TBU)** of the Department of Communication (DoC). A user-needs analysis identified data sets important to the establishment of the project. A database was designed and made available to the client on a server. This project has enabled the DoC to make well-informed decisions about its telecommunications rollout to schools, with the added benefit of providing thousands of schools with access to the Internet. Gina Weir-Smith and Fabian Arends worked on the project, which was completed in December 2002.

The GIS Centre identified the importance of labour centres as a source of information on supply and demand for the Department of Labour (DoL). The GIS Centre was funded by the DoC to capture the **spatial location of all labour centres, visiting points and satellite centres throughout the country**, laying the foundation for determining the catchment areas of each centre. These were captured in GIS, followed by a process of consultation with officials from the DoL in each province to align the catchment boundaries with existing administrative boundaries (for example provincial, municipal, district). This system will allow the DoL to have up-to-date knowledge of matters such as staff and visiting points in each labour centre. This will allow effective decision-making to address unemploy-

ment issues in South Africa. The project was completed in July 2003 under project leader S'bo Zama.

### Future developments

SAMM plans to **track national issues through longitudinal analysis**. The national master sample, completed in 2002, now makes it possible to visit and interview the same households on successive occasions, thereby conducting longitudinal analysis. The HSRC's annual public opinion survey, now called the South African Social Attitude Survey (SASAS), will incorporate this time-series dimension. The first HSRC study to draw on the master sample was SAHA's HIV/AIDS prevalence study, conducted in 2002.

Research on urban development, identified as a national imperative by government, is an area where SAMM intends making a considerable contribution, and will be driven by the recently established **Urban Studies Unit**.

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