

Department of Science and Technology Research Seminar
Measuring multiple deprivation at a small area level in South Africa:
A springboard for tackling deprivation in the Eastern Cape

The Human Sciences Research Council (HSRC)
Southern African Social Policy Research Institute (SASPRI)
Institute of Social and Economic Research (ISER) Rhodes University
Programme to Support Pro-Poor Policy Development

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Venue: 12th floor, Video Conference Room, HSRC, Cape Town

Purpose

Drawing on experiences of using indices of multiple deprivation to inform policy development in both developed and developing countries, this workshop seeks to share knowledge about the recently constructed ward-level South African Index of Multiple Deprivation (SAIMD) 2011, with a particular focus on the Eastern Cape. Taking into account experiences elsewhere (Namibia and the UK) the workshop will conclude with discussions about ways in which the SAIMD can be used to inform policy making, and ways in which it could be updated in future years by drawing from other data sources.

Background

SAIMD 2011 is a ward-level measure of multiple deprivation. It comprises a weighted aggregate of four domains or dimensions of deprivation: material deprivation, employment deprivation, education deprivation and living environment deprivation, and was developed to facilitate sub-municipal analysis of multiple deprivation and its component domains (Noble *et al.*, 2013). The SAIMD 2011 is the latest in a series of indices of multiple deprivation for South and southern Africa that have been developed using census data to profile multiple deprivation at sub-municipal level. The original South African study for 2001 was at ward level (e.g. Noble *et al.*, 2006 and 2010) and was undertaken in collaboration with HSRC. It was followed by a series of further refinements to develop a sub-ward or 'datazone' level index for 2001 (e.g. Noble and Wright, 2013), a series of child focused indices (e.g. Barnes *et al.*, 2009), as well as updates to 2007 at municipal and datazone levels.

The ward and datazone level indices 2001 have been used in many ways by national and provincial government including targeting areas to promote the take-up of the Child Support Grant, prioritising wards for specific antipoverty interventions and in the case of the City of Johannesburg, as part of the mechanism to target its indigency policy. Specific reports utilising the indices have been developed for several provinces and also for the City of Johannesburg.

Spatial patterns of poverty and multiple deprivation are not random. The spatial distribution reflects the outcome of a number of dynamic social processes and factors which include migration, availability and cost of living space, community preferences, current and historical policies. The latter is particularly important in South Africa where the spatial legacy of apartheid means that poor South Africans are concentrated spatially and tend to reside either in formerly racially segregated 'townships' around cities created or confirmed as a result of the Group Areas Acts 1950-1966, or in former homelands created in colonial times and further promulgated under the Bantu Authorities Act

1951. The Eastern Cape contains the most deprived former homeland – the former Transkei - (Noble and Wright, 2013).

By documenting this spatial distribution at small-area level, policymakers can effectively target resources and policies to complement mainstream services. This process can be further enhanced by analysing not only the overall index of multiple deprivation but also the component domains and so obtain a more nuanced picture.

The design of small-area indices of multiple deprivation for resource-allocation has a long history. For example, at least since the mid 1960s the aim of creating an index (or indices) to measure deprivation at the local level, to identify priority areas and target programmes more effectively, has been a consistent feature of UK government policy. At times these indices have been concerned with specific areas of policy, e.g. education or health, but since the 1980s a national index of ‘multiple deprivation’ at the local level has been developed to direct programmes and resources to deprived areas. The availability of the national decennial census in an electronic form with data from the enumeration district (ED) through to national level clearly contributed to this development. In the component countries of the UK (England, Scotland, Wales and Northern Ireland) Indices composed of distinct *domains* of deprivation began to emerge in the late 1990s.

Early indices in the UK were, as currently in South Africa, based entirely on the decennial census population. However, with the increasing availability of administrative data there has been a shift from census data to administrative data which has allowed more regular updating of the picture. Indeed, in the most recently completed English Indices of Deprivation 2010 (ID 2010) all but three indicators were sourced from administrative data (McLennan et al., 2011). The English ID 2010 is currently being updated and, despite the availability of the 2011 Census, is not heavily dependent on census data. This move towards administrative data is something which could be explored further in relation to South and Southern Africa.

In addition to experiences in developed countries, it is instructive to look at experiences in other developing countries. SASPRI has recently worked with the UNDP and the Namibian National Planning Commission to develop a Namibian Index of Multiple Deprivation 2011 (NIMD 2011) based on the 2011 census. This builds on earlier work using the 2001 Census (Noble et al., 2011a and 2011b). By using comparable indicators, where possible, change over time can be analysed and the drivers of such change in terms of policy interventions examined. The Namibian experience would contribute to discussions on measurement of change over time at small area level, as well as learning about ways in which the NIMD has been and is proposed to be used within Namibian government.

References

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McLennan, D., Barnes, H., Noble, M., Davies, J., Garratt, E. and Dibben, C. (2011) *The English Indices of Deprivation 2010*, London: Department for Communities and Local Government.

Noble, M., Babita, M., Barnes, H., Dibben, C., Magasela, W., Noble, S., Ntshongwana, P., Phillips, H., Rama, S., Roberts, B., Wright, G. and Zungu, S. (2006) *The Provincial Indices of Multiple Deprivation for South Africa 2001*, Oxford: University of Oxford, UK.

Noble, M., Barnes, H., Wright, G. and Roberts, B. (2010) 'Small area indices of multiple deprivation in South Africa' *Social Indicators Research*, 95(2), pp.281-297.

Noble, M. and Wright, G. (2013) 'Using indicators of multiple deprivation to demonstrate the spatial legacy of Apartheid in South Africa', *Social Indicators Research*, 112(1), pp.187-201.

Noble, M., Wright, G., Davies, J., Barnes, H. and Ntshongwana, P. (2011a) *Datazone-level Namibian Index of Multiple Deprivation 2001*, Report produced for UNDP Namibia.

Noble, M., Wright, G., Davies, J., Barnes, H. and Ntshongwana, P. (2011b) *Constituency-level Namibian Index of Multiple Deprivation 2001*, Report produced for UNDP Namibia.

Noble, M., Zembe, W., Wright, G. and Avenell, D. (2013) *Multiple Deprivation and Income Poverty at Small Area Level in South Africa in 2011*, Cape Town: SASPRI.

PROGRAMME

Rapporteur: *Prof. John Seager, Freelancer*

Chair: Prof. Michael Noble, Executive Director of the Southern African Social Policy Research Institute (SASPRI), Honorary Research Fellow HSRC, Visiting Professor Rhodes University

08:00 - 09:00 Registration, Tea & Coffee

09:00 - 09:10 Introduction

09:00-09:10 ***Welcome and Introductions***
Prof. Robert van Niekerk Director of ISER Rhodes University

09:10 – 10:10 Session 1

09:10 - 09:40 ***The importance of the SAIMD for Policy Development***
Dr Wiseman Magasela, Deputy Director General at the Department of Social Development

Accurate information and data on the geographic location of communities living in poverty and facing multiple forms of deprivation is crucial for policy formulation, policy implementation and policy review. In the social development sector the SAIMD has directed the work of the sector towards communities that need different government services. The policy relevance and application of the SAIMD is evident in government's war on poverty, take-up of social grants, the identification of areas in urgent need of NPOs to be supported and in many other policy implementation instances.

09:40 -10:10 ***Q&A***

10:10 -10:40 Tea break

10:40 – 12:40 Session 2

10:40 – 10:50 ***Introduction by the Chair for this session***
Mr Ben Roberts, Research Specialist, HSRC

10:50 – 11:30 ***Introducing the South African Index of Multiple Deprivation 2011***
Prof. Michael Noble, Prof. Gemma Wright and Dr Wanga Zembe, SASPRI

This session will begin with a brief introduction to the theory underpinning the concept of multiple deprivation at small area level from a sociological/social policy perspective. Concepts of poverty will be distinguished from concepts of deprivation. A background to the use of small area indices of deprivation to inform policy interventions will be given. This will be followed by an account of the development of South African Indices of Multiple Deprivation beginning with the Provincial Indices Multiple Deprivation 2001 and culminating in this current SAIMD 2011. The methodology underpinning the SAIMD 2011 will be described and results presented at provincial, local municipality

and ward level. In addition a ward level measure of income poverty will be described and the relationship between income poverty and multiple deprivation at ward level will be explored.

11:30 – 11:50 **Q&A**

11:50 – 12:20 ***The former homelands: focussing on the Eastern Cape***

Dr Wanga Zembe and Prof. Gemma Wright, SASPRI

This session presents a situational analysis of deprivation and poverty within South Africa's former homelands in 2011, using both the ward level SAIMD 2011 and the ward level income poverty measure. In particular, there will be a focus on the Eastern Cape containing, as it does, two former homelands – the former Transkei and the former Ciskei.

12:20 – 12:40 **Q&A**

12:40 – 13:40 LUNCH

13:40 – 14:40 Session 3

13:40 – 14:10 ***The Namibian Indices of Multiple Deprivation 2001 and 2011 and their uses***

Mr Johannes Ashipala, National Planning Commission, Namibia and Mr Ojijo Odhiambo, UNDP Regional Bureau for Africa

This presentation estimates the level of deprivation in Namibia. The paper uses the 2001 and 2011 National Population and Housing Censuses data to produce the Namibian Indices of Multiple Deprivation (NIMD) at regional, constituency and datazone levels. The NIMD is a composite index reflecting five dimensions of deprivation: material deprivation, employment deprivation, health deprivation, education deprivation and living environment deprivation. The regions are administrative and planning, as well as programme execution units in Namibia while constituencies are important political representational units. The methodology adopted is based on a similar process undertaken in South Africa which in turn was adapted from techniques developed in the United Kingdom. Results will be presented showing current patterns of deprivation and changes in deprivation between 2001 and 2011.

14:10 – 14:40 **Q&A**

14:40 – 15:40 Session 4

14:40 – 15:10 ***Recent developments in the UK in the use of indices and the underpinning data***

Dr Tom Smith, Oxford Consultants for Social Inclusion (OCSI) and Mr David McLennan

The various countries that comprise the UK have moved away from census-based Indices to Indices of Multiple Deprivation (IMD) based largely on administrative data. In part this was driven by a dearth of census data in key areas of deprivation but also it was driven by the fact that censuses in the UK are only conducted at 10 yearly intervals. Because parts of the UK, most especially England, have historically transferred considerable resources to deprived areas using the IMD, regular updating was

deemed a very high priority. Examples will be given of how UK indices have been used to allocate resources to deprived areas. The IMD in the UK has been a major driver of small area statistics more generally e.g. Neighbourhood Statistics. Examples will also be presented of local government using IMD, census **and** administrative data to target and improve local services. In order to illustrate the shift to administrative data two domains of the English **Index** of Multiple Deprivation – Education and Crime will be described and the possibilities of utilising similar data in South Africa will be raised for discussion.

15:10 – 15:30 **Q&A**

15:30 – 16:00 Session 5

15:30 – 16:00 **Way forward**

Prof. Michael Noble and Prof. Robert van Niekerk

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Biographies

Mr Johannes Ashipala

Mr Johannes Ashipala is a deputy chief and national development advisor, at the National Planning Commission, Namibia. He has about 13 years of professional work experience in economic research. Mr Ashipala served as a National Economist in the United Nations Development Programme (UNDP), Namibia and as a Researcher for the Namibia Economic Policy Research Unit (NEPRU). He holds Master degree in Economics, from the University of Manchester, an Honours degree from the University of South Africa and a Bachelor degree in Economics from the Univeristy of Namibia.

Dr Wiseman Magasela

Dr Wiseman Magasela is the deputy director general of Social Policy at the National Department of Social Development. He heads up the social policy programme responsible for promoting and institutionalising evidence-informed policy making in the social development sector. Prior to joining the Department of Social Development, Wiseman Magasela held the position of a research manager at the Centre for the Analysis of South African Social Policy, University of Oxford, England. He worked as a chief researcher at the National Research Foundation in the Research Capacity Development Directorate which promoted and supported research at South African universities. Wiseman Magasela holds a Doctor of Philosophy from the University of Oxford.

Dr Temba Masilela

Dr Temba Sipho B. Masilela is the Deputy CEO of Research at the Human Science Research Council (HSRC), South Africa. His wide-ranging research interests include social policy, public management reform, social innovation, research communication, the research-policy nexus, and stakeholder engagement. He was the founding director of the Policy Analysis Unit at the HSRC and was previously the executive director of the Policy Analysis and Capacity Enhancement cross-cutting programme at the HSRC.

Mr David McLennan

Mr David McLennan is a senior research fellow at the Centre for the Analysis of South African Social Policy (CASASP), University of Oxford. His primary research interest is in the spatial distribution of poverty and deprivation at small area level within South Africa and the UK. He has extensive experience of working with large national individual-level administrative and Census datasets.

Prof. Michael Noble

Prof Michael Noble is executive director of the Southern African Social Policy Research Institute (SASPRI), a visiting professor at Rhodes University and an honorary fellow at the Human Sciences Research Council. He is also emeritus professor of Social Policy at the University of Oxford in the UK. His main research interests are in poverty, deprivation, inequality and income maintenance policy particularly in sub-Saharan Africa. He specialises in quantitative research methods and is committed to evidence-informed policy making.

Mr Ojjo Odhiambo

Mr Odhiambo is an economic advisor for UNDP Namibia. He has served in senior management positions over the past 23 years, handling a wide range of tasks in diverse (developed and developing) country contexts and professional roles serving *inter alia*, as governance advisor and MDGs advisor. Mr Odhiambo has served in policy research, advocacy and advisory roles to governments, the UN, and other actors such as CSO and private sector in the areas of environmental management, international trade and environment, macroeconomic policy reforms, and poverty reduction and deprivation. Apart from employment at the UNDP, Mr Odhiambo has also had opportunity to work for other UN agencies, including UNEP, UNICEF and UNITAR.

Mr Ben Roberts

Mr Ben Roberts is a research specialist in the Democracy, Governance and Service Delivery unit at the HSRC. He has a BSc in town and regional planning (*cum laude*) from the University of the Witwatersrand and an MSc in urban and regional planning (development) (*cum laude*) from the University of Natal. Before joining the HSRC, he was research fellow in the Population and Poverty Studies Programme at the School of Development Studies at the University of Natal. His areas of research interest include the analysis of poverty and inequality dynamics, sustainable livelihood

development, poverty reduction strategy papers (PRSPs), and monitoring progress towards the Millennium Development Goals (MDGs). More recently, he has conducted poverty and inequality analysis for Namibia's MDGR, run training on national poverty line specification in Zimbabwe, and participated in a scoping exercise to help inform the design of DFID's envisaged regional hunger and vulnerability programme for Southern Africa.

Prof. John Seager

John Seager is a freelance research consultant with over 30 years public health research experience in Africa. His research has covered AIDS and development, tuberculosis, diabetes care, urban health systems, and social determinants of health. He obtained a PhD in Ecology and Population Dynamics at the University of Wales and holds positions as an extraordinary professor at the University of the Western Cape and the University of Stellenbosch. His main research interest is social determinants of health among the poor in developing countries. Recent work includes health systems evaluation, HIV and AIDS, homeless populations and social aspects of climate change. Prof. Seager serves on the editorial advisory board of *Development Southern Africa* and is a reviewer for local and international journals. His publication record spans the authoring and co-authoring of more than 60 journal articles, 50 research reports and 100 presentations at scientific meetings.

Dr Tom Smith

Dr. Tom Smith is chief executive & co-founder of OCSI, working collaboratively with public and community organisations to improve services through better information. As well as leading OCSI projects with more than 100 public and community organisations across the UK and internationally, Tom is chair of the UK Environment Agency Data Advisory Group, project lead on the UK government Indices of Deprivation, and regular speaker/ contributor on data and public services.

Prof. Robert van Niekerk

Robert van Niekerk is the director of the Institute of Social and Economic Research and associate professor of Social Policy at Rhodes University. His research, teaching and publication cover the institutional history, ideologies and understandings of social policy and social change in South Africa. Prof. van Niekerk is currently the project lead researcher (or co-leader) on several research projects, including a multi-country large-scale study on the developmental state and social policy; a research programme on health policy and private medical practitioners; and a research study on the social policy positions of political parties and the views of social citizenship and the post-apartheid good society that those social policy positions reflect.

Dr Gemma Wright

Gemma Wright is SASPRI's research director. She is also a professor extraordinarius at the Archie Mafeje Research Institute at the University of South Africa (UNISA), a research associate at Rhodes University, and a research fellow at the Centre for International Education at the University of Sussex in the UK. Her research interests include poverty, child poverty, and social security policy.

Dr Wanga Zembe

Dr Wanga Zembe is a director and research fellow of SASPRI. She is also a senior scientist at the Medical Research Council and has research experience in child poverty and child health. Her main interests are research and teaching in social policy, specifically as these relate to poverty and inequality.