

**THE RDP - A CHALLENGE AND OPPORTUNITY
(What Statistics and Operations Research can do for the RDP)**

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The Reconstruction and Development Programme, launched by the South African Government of Nation Unity shortly after coming to power in 1994, is an integrated, coherent socio-economic policy framework aimed at lifting South Africa and its peoples out of the legacy of apartheid and developing the nation within a democratic framework. Its five key programmes:

- meeting basic needs,
- developing our human resource,
- building the economy,
- democratising the state and society, and
- implementing the RDP

provide great challenges and opportunities for both Statisticians and Operations Researchers to apply their specialised skills to the benefit of the broad South African community. Statistics, as the scientific field of study concerned with the collection of data and the process of extracting information from it ("making sense of numbers") in order to help make predictions and/or decisions, and Operations Research, as the scientific approach to solving decision problems (via mathematical, statistical and/or computer modelling) in the management of

organisations, are clearly both of central importance in the planning, execution and monitoring of RDP programmes.

What are these challenges, and how can statisticians and operations researchers contribute? In order to explore these questions and hopefully come up with some answers, the Operations Research Society of South African (ORSSA) and the South African Statistical Association (SASA) jointly organised a one-day seminar on 3 October 1995 entitled: "The RDP - a Challenge and Opportunity", and individuals interested in finding out the needs for, and opportunities to apply their scientific skills in the RDP, to attend. The seminar took place in the idyllic rural setting of the Alpha Training Centre in Broederstroom, just south of the Hartebespoort dam, and was timed to precede the annual conference of ORSSA so that the society's invited keynote speaker, Professor Jonathan Rosenhead from the London School of Economics, could also participate in the proceedings. I acted as seminar organiser and chairman.

The day was structured so that the morning could be devoted to exploring the needs for Statistics and Operations Research in the RDP and the afternoon to the role which these two professions could play in this programme. In her welcoming address, Mrs Erica Ferreira, President of ORSSA, made the point that the five key programmes of the RDP all involve the allocation of scarce resources in matching supply and demand, finding cost-effective solutions to problems and providing accountable decision making. Since OR literature is filled with reports of work done in each of these areas, what better discipline than OR to make a contribution? Following Erica's address, Professor Willie Conradie, President of SASA, observed that no planning can be done without the relevant information; generally information is in the form of numbers which have to be obtained from questionnaires or surveys, and statisticians have the right skills to interpret these data and present the conclusions in an understandable form to decision makers and the public.

In his opening address Mr Howard Gabriels of the RDP Office spelt out how his office set priorities and did the planning, resource allocation, implementation and monitoring for RDP projects. He stressed the importance of a National Statistical System (developed and maintained by a restructured Central Statistical Service) which feeds into a National Management Information System (still under development) to help central and provincial government departments to co-ordinate the planning and implementation of RDP projects and monitor their progress. The next three speakers in the morning session were: Dr J.A. Kahimbaara of the Directorate of Statistics in the North West Province who spoke about the spatial foundations for addressing the statistical needs of the RDP, with specific reference to the issue of the re-delimitation of the province after the reincorporation of the Bophutatswana homeland; Dr Benny Mokaba of the Development Bank of Southern Africa who presented a paper entitled "Facts, Factoids and Statistics: Official Statistics and Public Policy Making", and Mr Mahomed Bhyat of the Department of Development Planning of the Gauteng Government who talked about implementing an integrated geographic information system to support development planning in the province.

The morning session concluded with a panel discussion which included Dr David Jacobson, Executive Director of Altron and a member of the Wits University Council, as well as the speakers, and was chaired by Mr Deon Herbst, Director of Statomet. What came out of this discussion was the tremendous need for quantitative skills in all aspects of the RDP, and for training in basic quantitative skills at all levels of society, so that communities can measure their needs and their progress in having these needs satisfied through the implementation of the RDP.

Professor Jonathan Rosenhead, a past-President of the British Operational Research Society and pioneer in the fields of "Community OR" and "Problem Structuring Methods", opened the afternoon session with an address entitled "OR for the people" in which he explained some of the concepts behind "Soft

OR", which addresses decision problems in situations where there are multiple perspectives and objectives, issues are intangible and not readily measurable, and there is conflict between the various parties - just the situations where the RDP is trying to make an impact! Mr Hans Ittmann, Programme Manager, Decision Support Services of the CSIR spoke on the "The RDP - what can OR offer?", arguing that the OR approach towards problem solving, comprising problem formulation, model building, solving the model, testing the accuracy and realism of the model and solution, and implementation, was very appropriate for the RDP and that both the traditional OR methods, such as those applied in mining and industry, as well as the "Soft" methods, are relevant. Two speakers discussed the role of Statistics; Mr John Lynch of the Central Statistical Service gave the talk: "Numbers for the RDP: the role of the CSS" in which he stressed the vital importance of relevant and reliable statistics for decision making on RDP projects and public monitoring of their progress; Professor Chris Smit of the Statistics Department at the University of Pretoria described the results of a survey undertaken of South African newspapers and journals over the past two years, showing that, amongst the 442 articles identified as referring to the RDP, the overwhelming preponderance were in financial publications, while very few appeared in publications focusing on development, housing, agriculture and human resource, which is clearly a matter of concern.

The panel discussion, comprising the afternoon speakers and chaired by Dr Elsbeth Dixon of the CSIR, concluded that Statisticians and Operations Researchers need to be proactive and promote the use of their disciplines in RDP-related activities, particularly at community level (and that the lessons from the British Operational Research Society's involvement in Community OR would be of relevance) and reaffirmed the need for training courses in basic Statistics and OR.

The final conclusion from the seminar was that Statistics and OR do have an important role to play in the RDP and that it was up to the Statisticians and Operations Researchers to go out and create the opportunities to become involved. The seminar also highlighted the severe shortage of skills that existed in these disciplines in South Africa, and the organisers were charged with the task of arranging a workshop aimed at capacity building in Statistics and OR as a first step towards addressing this shortage.
