GIS enabled M&E Spatial Reporting Tool for Rural Sector Development Plan Implementation

Rural areas need focused rural development initiatives/ interventions to address their challenges. Within the Department of Agriculture, Land Reform and Rural Development (DALRRD) macroeconomic environment of operation, one of the central tenets is to focus on and bolster rural development within South Africa. Approximately 33,7% of the South African population live in rural areas. However, most of this population lives in poverty and has poor access to social services, such as education and healthcare. In response to the state of rural South Africa, the government, private sector, and civil society have acted to socio-economically uplift rural communities through "rural development".

This is in line with the objectives of the Spatial Planning and Land Use Management Act (Act 16 of 2013) which stipulates that spatial planning and land development in the country should address the inclusion and integration of rural areas into the spatial, economic, social, and environmental objectives of the relevant sphere (Subsection 12(1)(h)). DALRRD is mandated to facilitate, coordinate, and align all initiatives to enhance Rural Development in South Africa. To achieve this, DALRRD needs to facilitate processes of rural development planning that will address the needs of communities living in extreme poverty and being subjected to underdevelopment in rural areas.

Given the above, the Department of Agriculture, Land Reform, and Rural Development initiated a programme which focused on dedicated rural development interventions in the 24 most impoverished districts in South Africa in September 2011. This was in line with a Cabinet decision taken in July 2011. Since then, the programme was expanded to include all District Municipalities in South Africa.

These Rural Development Plans (RDPs) were intended to be aligned with national, provincial, and municipal policies, plans, processes, and priorities, as well as the institutional structures involved in the management and alignment of planning processes in South Africa (such as IDP forums, etc.). The need for alignment between sector departments, parastatals, and the municipal development agenda in ensuring integrated and sustainable development was also emphasized.

Within the department branches operating at the Provincial Shared Services Centre (PSSCs) have been using RDP to identify, monitor, evaluate, and implement initiatives, programs, and projects by the Department in the municipalities. Components of which ensures that departmental footprint finds its spatial expression as a sector within rural space and transitioning implementation built unto various Municipal Spatial Development Frameworks (SDFs).

With the critical need for alignment between sector departments, parastatals, and the municipal development agenda in ensuring integrated and sustainable development the Department deems it necessary to develop Rural Development Sector Plans (RDSP) that will assist in identifying opportunities in these rural spaces of South Africa to ensure that they achieve their development potential.

Taking the Guidelines for Rural Development Planning into consideration as drafted by DALRRD a there was a need to also develop an E-Governance/Monitoring Tool and by using ESRI platform key ingredients of the RDSP complying to various districts are modelled. The ingredients analysed using a cost surface analysis methodology which identifies the functionality of a land parcel considering several spatial datasets such as vulnerability data, grazing capacity, water or any pre-defined physical boundary. All data layers are costed based on the importance of the different layers, shape files and other information. Less important layers are costed lower while layers of more importance contributed towards increased values. The results are calculated using spatial grids where results are extracted to meet the desired spatial enquiry.