





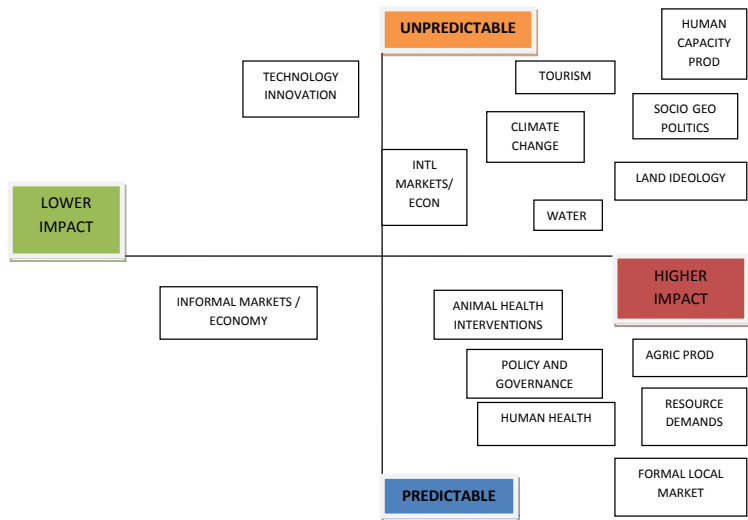
<p><b>Cluster: Resource Demands</b>  <b>Drivers:</b>  Population growth  Affluence  Sustainability Ethic  Medicinal market/ Natural products market  Use of water</p>	<p><b>Cluster: Human Capacity/Productivity</b>  <b>Drivers:</b>  Education Quality  Socio economic status  HIV/AIDS/Human Health  Availability of Information  Social Capital  Implementation Capital  Adaptive Capacity  Technology</p>
<p><b>Cluster: Formal Local Market</b>  <b>Drivers:</b>  Broad Based Black Economic Empowerment  Mineral Wealth  Agriculture  Tourism  Light Industries  Residential/urbanisation  Gentrification</p>	<p><b>Cluster: Climate Change</b>  <b>Drivers:</b>  Emissions  Kyoto compliance  Reforestation / carbon sequestration  Large herbivore population  Consumerism  Catastrophic events</p>
<p><b>Cluster: Technology /Innovation</b>  <b>Drivers:</b>  Access to Technology  Current Technology Trends  Scientific Investment  Innovative Approaches  Inter-disciplinarity  Low tech solutions  Animal health advances (vaccines)  Human health advances</p>	<p><b>Cluster: Animal Health Interventions</b>  <b>Drivers:</b>  Agricultural policy  Fencing issues  Vaccination status  Movement control  Domestic animal demographics  Cattle wildlife producer conflict  Primary animal health  Alien disease</p>

GMOs	
<p><b>Cluster: Informal Markets/Economy</b>  <b>Drivers:</b>  Population Density  Tourism  Agriculture  Illegal “bushmeat” trade  Medicinal plants trade – “muti” market  Asian demand for natural resources  Culture and ethnicity  Commercial trade in wildlife products</p>	<p><b>Cluster: International Markets/Economy</b>  <b>Drivers:</b>  Exchange Rates  Globalisation  Dependencies  Foreign Investment  International Finance  International Conservation Finance  Political Agendas  International natural resource demand</p>
<p><b>Cluster: Tourism</b>  <b>Drivers:</b>  Tourism levels  International terror  Crime  Type of tourism development  Exchange rates  SMMEs  Marketing</p>	<p><b>Cluster: Land Ideology</b>  <b>Drivers:</b>  Land Restitution  Affluence – gentrification  Conservation Imperialism – “super Kruger”  Conservation Planning  Bio regionalism  NGO Land Agendas</p>
<p><b>Cluster: Socio-Geo Politics</b>  <b>Drivers:</b>  Ethnic Tensions  Wealth Disparities  Xenophobia  Immigration/emigration</p>	<p><b>Cluster: Human Health</b>  <b>Drivers:</b>  HIV/AIDS  Malaria  Poor sanitation  Water supply</p>

"Brain" drain/gain Demographics Perceptions and stereo types Ethnicity Regional Political Security Regional Ecological Security Legacy of Recent Wars Regional Historical Events International Boundaries Parochialism	Nutrition TB/Rabies/Zoonosis Education Income Cultural/religion Employment Housing Govt policy Access to technology Primary health care Human wildlife conflict Natural products health Alien disease
<b>Cluster: Water</b> <b>Drivers:</b> Dams Pollution Off-take Flow Availability Ground water Rainfall Climate Change Erosion Policy	<b>Cluster: Agricultural Production</b> <b>Drivers:</b> Output Resource use (in production) Crop type Pollution Agro industries Labour Climate Change Land Policy

### The Predictability Matrix

Having identified the drivers and driving forces the next stage is to plot these on to a predictability matrix. The predictability matrix is critically important because it highlights the relationship between driving forces and brings out the elements of uncertainty that are operating in "real time". Between workshop 1, 2 and 3 driver clusters were moved on the matrix indicating changes occurring in real time or a re-assessment of a previous decision. Tools like this matrix can be simple but effective monitoring devices.



"WHY NOT WORK TOGETHER"

FRAGMENTED

"THE FRACTURED GOURD"

UNREALISED

HUMAN CAPACITY/PRODUCTIVITY

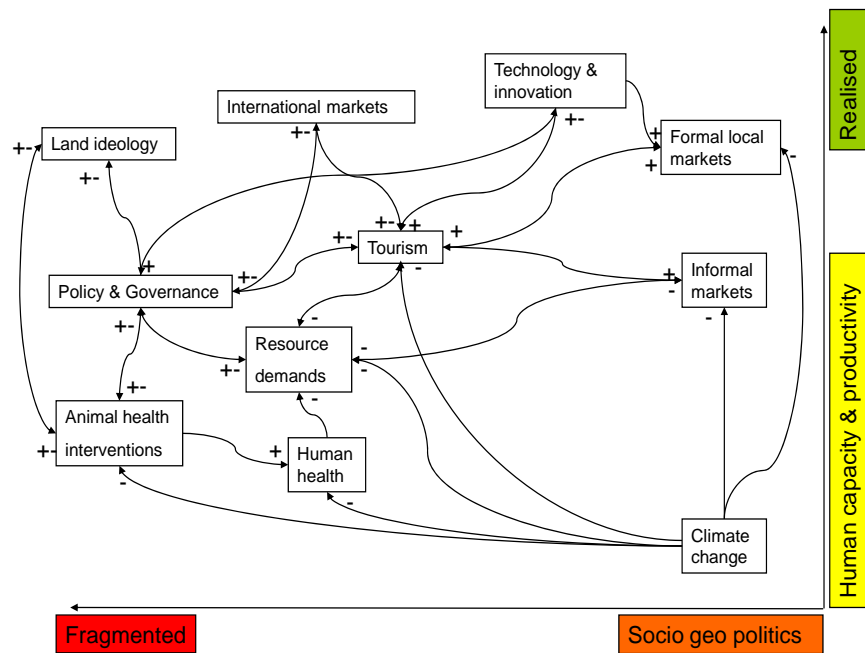
REALISED

"TOGETHER WE FLOURISH"

SOCIO GEO POLITICS

INTEGRATED

"DISTRICT SIX"



Driver	Indicator
1. Land Use /Policy/Demographics/Change	Land classification/Policy/Census Data
2. Animal Health	Stock number/Specified disease/Incidence/Condition scoring/Production / Service Provision
3. Human Health	Infant mortality/ certified diseases/ U5 Centile charts/ Life expectancy/Education/Service provision
4. Natural Capital	Degradation/NDVI/Bio Diversity index incl aquatic/silt loads/primary production/ soil fertility/ air quality
5. Social Capital	Adaptive capacity/ governance/ trust/ institutions/ social grants/ quality of education
6. Water	Flow/groundwater/ quality/ use
7. Innovation	New technology/ responses to challenges
8. Financial capital	GGP – Gross geographic product/ Tourism receipts/ household income/ donor inputs and external subsidies
9. Physical Capital	Infrastructure/ electricity supply/telecommunications/ roads and bridges/dams/fencing/housing/schools and clinics
10. Aesthetic	Tourism/ culture/ arts



Driver/s	Monitoring Tools
Natural Capital	Landscape Function Analysis/ GIS/ sedimentation in dams, rocky outcrops and gauging weirs/trend analysis of crop production nitrogen, carbon, phosphate levels/Air pollution standards and nitrogen deposition.
Land Use	Heterogeneity index/ land use categories/ land tenure categories/ policy analysis/ demographics/ GIS/ Surveys
Social Capital	"working" institutions/ Cohesiveness/ Crime/ measure of inter-ethnic conflict/ education secondary and tertiary graduates