

Mapping innovation activities for local development: Dr Ruth Segomotsi Mompoti

Preliminary findings on using the Rural Innovation Assessment Toolbox to map innovation activities among a purpose-built sample of 122 enterprises in Dr Ruth Segomotsi Mompoti District Municipality, provide some high-level insights regarding district innovation patterns, innovating enterprises' awareness of STI support and their networks. These are highlighted as helpful steps towards thinking about appropriate policy recommendations utilising innovation to enhance local development.

Roughly 13 per cent of the population of the North West Province lives in Dr Ruth Segomotsi Mompoti District (the District), with over 65 per cent of these residents located in the rural areas. District indicators of human well-being generally fall below that of the North West provincial averages, suggesting a relatively lower quality of life and living standards.

Innovation patterns and trends

The pilot study in the District was underpinned by a novel framework to comprehensively document the nature and extent of innovation activities (invention, adoption, adaption and diffusion). With the aid of this innovation value chain approach and its related purposively built sampling methodology, patterns of rural innovation were uncovered that have potential to alleviate rural underdevelopment and raise the living standards of rural communities. These patterns, however, need further investigation prior to implementation of innovative interventions for development.

Invention

Very few enterprises in this district are pioneering creators of new products, processes, organisational or marketing arrangements, coupled with intensive research and development of new knowledge. The traditional notion of innovation, expressed simply as invention, was evident in a marginal share (2%) of all sampled enterprises for the years 2011 and 2012.

This evidence is unsurprising because the critical drivers of original knowledge and artefact creation are generally absent, as is access to the means for further development and refinement.

Adoption

Adoption is far more prevalent than innovation among the enterprises studied. The evidence points towards more vigorous uptake of new ideas, practices and artefacts originally developed by other enterprises outside the District.

Moreover, enterprises that adopt innovative ideas, arrangements and products from outsiders confirmed that they are offered various options, enjoy the freedom to choose and tend to introduce the 'new knowledge' into their enterprises.

Adaption

In terms of the proportion of enterprises involved in this activity, improvements and incremental changes to innovations sourced from outside enterprises rank a distant second after adoption. On average, only one out of four enterprises actively adapts innovations, with private enterprises ahead of non-profit organisations on this score.

The private commercial enterprises that actively adopt and adapt rarely applied for government support for the dominant innovation activities, in contrast to many non-profit organisations (56%) that do apply.

Diffusion

The proportion of enterprises that transfer, share and distribute new ideas, products and practices in the District increased from 7 per cent to 13 per cent between 2011 and 2012. Diffusion of innovations among sampled enterprises clearly surpassed invention over this period, making it the third most prevalent innovation activity in the district.

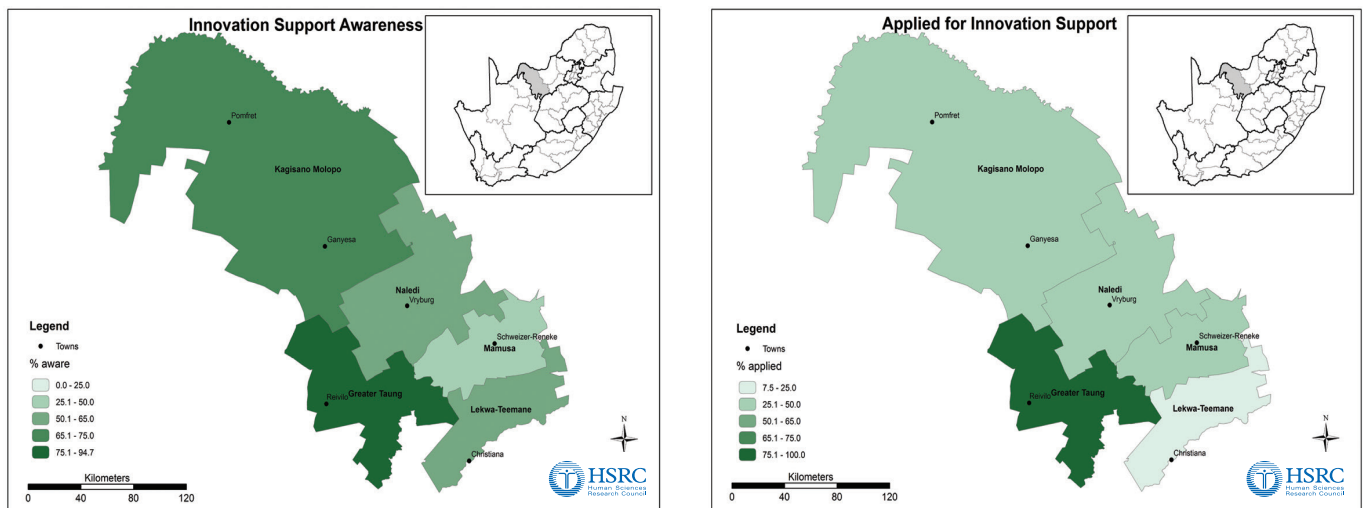
Awareness of innovation policies and support

Unfortunately, at grassroots level, there is poor localised awareness of national innovation policies and government assistance to promote innovation (Figure 1).

Approximately 30 per cent of enterprises self-reported an awareness of national Science, Technology and Innovation (STI) policies - heavily skewed in favour of public enterprises. A significant share of the enterprises considered institutional support (policies, laws and agencies regulating and supporting innovations) an important contributor to innovation activities.

Among private enterprises in our sample there is, however, a disproportionately negative perception of government institutional support. In Figure 1 the match between awareness of state support for innovation and whether enterprises actually apply for such support does not follow any clear pattern across the local municipalities.

Figure 1: Share (%) of enterprises aware of state support for innovation activities and share (%) of enterprises applying for this support



Source: Authors own calculations

In Greater Taung, high levels of awareness of state support for innovation matched high levels of applying for this. In Lekwa-Teemane, however, the level of application for support for innovation dropped significantly relative to awareness. More information is needed to explain these trends.

Innovation networks

An impressive 85 per cent of sampled enterprises are actively involved in knowledge sharing networks; interactions that adopters are most likely to benefit from.

Among the enterprises that reported participation in innovation networks, interactions were predominantly formal rather than informal, although there were differences across economic sectors. Both formal and informal enterprises engage in formal and informal networks (Figure 2). Figure 2 shows that, in all municipalities, innovations take place in and through networks, but with differences in the intensity and degree of formality of innovation networking.

What is puzzling is why the innovation networks in Naledi, which is the economic hub of the district, appear weaker than in most of the other municipalities. If distance from the hub was a catalyst for networking, as hypothesised in some research, this does not hold for Lekwa-Teemane.

Enterprises in this district were mainly involved in formal innovation networks, but Naledi and Lekwa-Teemane host relatively more informal networks. Further investigation is required to explain this pattern.

Innovation opportunities and challenges

Almost all respondents equated innovation with hard technologies, creativity, and bringing something new into the enterprise – a traditional notion of innovation – with almost 90 per cent of private enterprises engaged in innovation activities for direct economic benefit. Around 75 per cent of responding enterprises indicated no awareness of the narrow understanding of social innovation as innovative activities, such as the use of goods and services to improve social wellbeing.

Despite this, a substantial share of sampled public and non-profit enterprises pursued innovation activities with the explicit or implicit goal of improving human and social wellbeing. The fact that a fair proportion of enterprises interviewed engaged in 'social innovation' oriented activities provides an opportunity for increased social development; especially if coupled with increased and coordinated government support for social innovation.

Although there is some evidence of innovation activity in the district, improved government support could increase this – especially the activities of adoption and diffusion. The perceived lack of coherent government support for innovation in the rural districts is one of the reasons identified by the sampled enterprises for the low level of application, as they find the funding process daunting. Many enterprises lack capacity for innovation, which could be increased through government support in creating necessary innovation awareness and facilitating skills transfer.

Conclusion

To sum up, findings of this pilot study in the District support this basic proposition: in order for innovation to be a catalyst for rural development, with an emphasis on enhancing human wellbeing, the barriers hindering innovative performance must be cut.

- This means increasing the ability of enterprises to adopt and adapt innovative products, processes, organisational and marketing arrangements by facilitating easier access to support mechanisms.
- Strengthening learning capabilities of actors in the local innovation space, especially knowledge of STI policies and the national system of innovation, combined with effective institutional coordination are urgent interventions to successfully harness innovation for broad-based enhancement of quality of life in this district.

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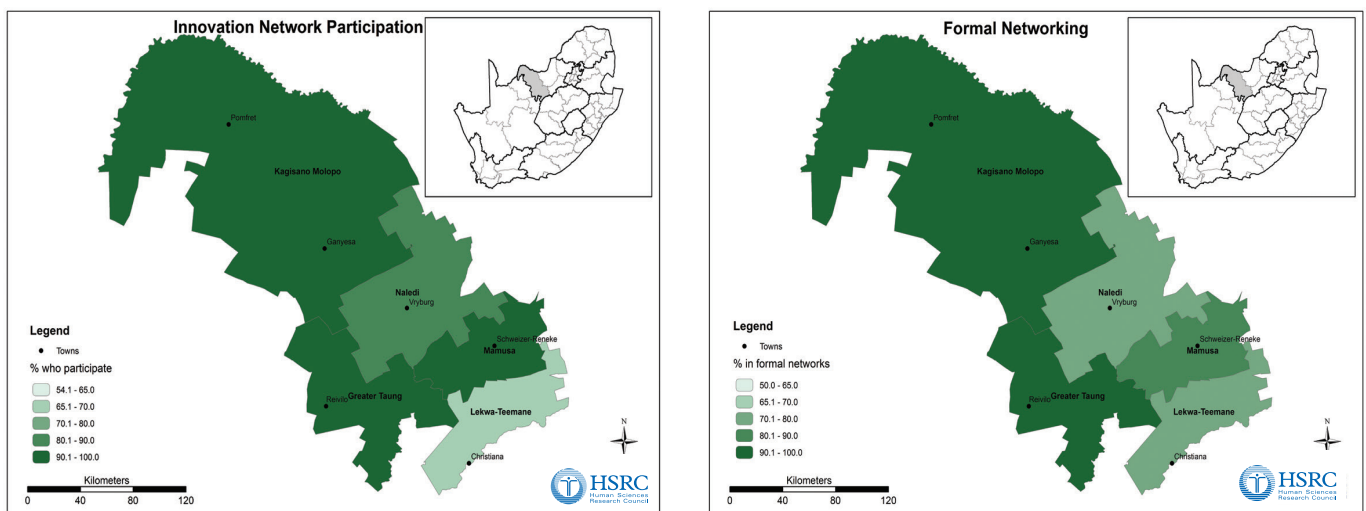
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The full version of the report from which this briefing note is drawn can be found at <http://www.hsrc.ac.za/en/departments/economic-performance-and-development/innovation-patterns-in-districts>.

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Figure 2: Share (%) of enterprises involved in the networks and share of enterprises involved in formal networks



Source: Authors own calculations