

INEQUALITY AND ECONOMIC MARGINALISATION

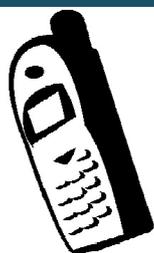


Making markets work for people and the environment: Employment creation from payment for eco-systems services

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ABOUT THIS RESEARCH

The 2007 Annual Report of the Accelerated Shared Growth Initiative of South Africa (AsgiSA) identified a need to focus on what was then called ‘the second economy’, and on mechanisms to ensure shared growth reaches the margins of the economy. The Second Economy Strategy Project was initiated in this context. It reported to the AsgiSA High Level Task Team in the Presidency, but was located outside government in TIPS.

A review of the performance of government programmes targeting the second economy was completed in early 2008. The project then commissioned research and engaged with practitioners and policymakers inside and outside government. A strategic framework and headline strategies arising from this process were approved by Cabinet in January 2009, and form part of the AsgiSA Annual Report tabled on 16 April 2009.

In South Africa, people with access to wealth experience the country as a developed modern economy, while the poorest still struggle to access even the most basic services. In this context of high inequality, the idea that South Africa has ‘two economies’ can seem intuitively correct, and has informed approaches that assume there is a structural disconnection between the two economies. The research and analysis conducted as part of the Second Economy Strategy Project highlighted instead the extent to which this high inequality is an outcome of common processes, with wealth and poverty in South Africa connected and interdependent in a range of complex ways. The different emphasis in this analysis leads to different strategic outcomes.

Instead of using the analytical prism of ‘two economies’, the strategy process placed the emphasis on the role of structural inequality in the South African economy, focused on three crucial legacies of history:

- The structure of the economy: its impacts on unemployment and local economic development, including competition issues, small enterprise, the informal sector, value chains and labour markets.
- Spatial inequality: the legacy of the 1913 Land Act, bantustans and apartheid cities, and the impacts of recent policies, looking at rural development, skewed agriculture patterns, and the scope for payment for environmental services to create rural employment.
- Inequality in the development of human capital: including education and health.

TIPS’s work around inequality and economic marginalisation is built on the outcomes of this strategy process.

The research undertaken under the auspices of the Second Economy Strategy Project continues to be relevant today as government explores policy options to reduce inequality and bring people out of the margins of the economy. This report forms part of that research.

A list of the research completed is available at the end of this report. Copies are available on the TIPS website: www.tips.org.za.

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EXECUTIVE SUMMARY

We conducted a partial sectoral analysis of the market for ecosystem goods and services in South Africa by doing the following:

- We mapped the areas of high ecosystem productivity and poverty. By overlaying the two datasets, we identified the priority areas for developing markets for ecosystem goods and services.
- We estimated the potential size of the ecosystem market.
- We developed a potential institutional mechanism through which the value of such a market could be unlocked.

The development of markets for ecosystems goods and services is an increasingly important issue in the face of environmental degradation and increasing pressures on remaining natural capital. What are the implications of natural capital being increasingly scarce? Firstly, the value increases. The value of land and natural resources and the production of ecosystem goods and services are becoming precious commodities implying that those who currently have access or tenure over them are holders of an asset of which the value is set to rise. This has an impact on the political economy of managing natural resources. But, as will be shown, those who stand to gain from this new economy, though it will require a concerted and focussed effort, are the marginalised and the poor. As the value of natural capital increases, so will the value of the land and the ability of the landowners/users to seek environmental and economic justice also increase, for instance. Secondly, as the value of natural capital increases, so does the need to invest in natural capital, the limiting factor, to protect the capital base and compensate the owners of the resource for their custodianship. Thirdly, this unique juncture in time, with natural capital becoming increasingly the limiting factor and therefore the valuable asset, implies the opportunity for the development of new markets – markets for commodities that never before existed. These new markets are likely to give rise to new social constructs, a new vocabulary and a new paradigm concerning development. Sustainable development is no longer a nice-to-have, it is now essential for progress. Fourthly, the establishment of these new markets carry in and with it the opportunity, if well-conceived, to address poverty and stimulate economic development and growth in ways unknown before. We have to, however, caution that if this process is not well-managed, as financial capital follows value – i.e. natural capital – so does the opportunities to further exploit and marginalise the poor and economically vulnerable. While the impending increase in value of land and natural resources can be the greatest single factor in catapulting the poor from oblivion to a position of meaningful participation in the economy, one should guard against this blessing becoming a curse.

We identified large parts of the Eastern Cape, KwaZulu-Natal, Mpumalanga and the Limpopo Province as priority areas for the development of markets for ecosystems. It is in these areas where ecosystem productivity is high and poverty rife. While it was not a consideration in this study, it is interesting to note the high degree of overlap between the areas of high priority from a market for ecosystem goods and services perspective and those of biodiversity importance.

Is the development of such a market viable and does it offer sufficient scale to justify further consideration and investigation? While the supply of the services originates mainly from those municipalities that offer significant ecosystem services and which are generally poor, the demand for ecosystem services is in the cities. Those on the demand-side and those on the supply-side are therefore geographically apart, yet it is in this that the market for ecosystem services can act as a bridge to enable the development of new market opportunities for those who are currently "un-marketed" – those operating in the second economy. While there is evidence of such an emerging market at various places, it is very far from its potential and it is highly unlikely that the market will achieve its full potential without a concerted effort. If one only focuses on energy, water and carbon, it is clear that the potential market size is substantial, as can be seen in Table I. We focus on energy, water and carbon

since they could be considered umbrella services. They are easily understood, in high demand, does have market prices associated with them, and by effectively managing them one is likely to address a range of other conservation and economic objectives simultaneously.

Table I: Summary: potential size of the energy, water and carbon markets

	Market size: Rmillion/year ⁷	Number of person-years
Energy: Biomass gasification ¹	3,550	42,000–50,000
Energy: Biogas: LPG replacement ²	1,182	45,000
Energy: Biogas: Fuelwood replacement ³	325	31,000
Water: At current levels of infestation ⁴	526–2,594	The same as for biomass gasification
Water: At future levels of infestation ⁵	1,953–9,626	
Carbon sequestration ⁶	8,978	240,634

Notes:

1 Refers to the process whereby all forms of woody biomass are being gasified in a biomass gasifier. The gas produced is then used to generate electricity using a generator.

2 Most organic material such as manures and agriculture residuals can, once placed in a digester, produce biogas which can be used as an energy source to replace, among other things, the need for liquid petroleum gas (LPG), a high-value commercial energy carrier.

3 Biogas can also successfully be used to replace the need for firewood and reduce the rate of reforestation, as well as the time spent on collecting firewood. Biogas is also a much clearer and healthier energy carrier than wood.

4 Refers to the value of the water consumed by invasive alien plant species at current rates of infestation. By value is meant the economic value, i.e. the value of the water through the economic value chain and not the price of water.

5 Refers to the value of water consumed by invasive alien plant species in future if left uncontrolled at today's economic values.

6 Refers to the potential value of degraded and intact natural capital to sequester carbon. Varying sequestration rates for both the level of degradation and the vegetation type has been used.

7 For an explanation how these numbers were derived, please consider the main text.

The most challenging component concerning the development of this market is not to prove value, nor to convince the people to participate, but it will be and is an institutional issue. We suggest the development of a payment for ecosystem services facilitation agent, as a private sector entity, but in close conjunction with government. Such a relationship could be, but is not limited to, one that constitutes a public-private partnership. Important, however, is that the agency will have to liaise with local communities, through existing structures such as the Community Works Programme or others, the government and the buyers of the services. This is done to bundle the services together and in so-doing reduce the transaction cost of the trade.

GLOSSARY

Alien species: Fungi, plants or animals that is not native to the country or region in which they are introduced or naturalized. See also invasive alien plant.

Biodiversity: The diversity of life at genetic, species, community, ecosystem and biome levels.

Bush encroachment: Indigenous woody plant species that invades the territory of other species or that are becoming denser not allowing other species to co-exist.

Carbon sequestration: A concept that refers to capturing carbon and keeping it from entering the atmosphere for some period under a greenhouse gas reduction program. Carbon is sequestered in carbon sinks such as forests, soils or oceans.

Cost-benefit analysis: An economic technique applied to public decision-making that attempts to quantify, in monetary terms, the advantages (benefits) and disadvantages (costs) associated with a particular policy in a comparative way.

Cost-benefit ratio : A discounted measure of project worth which implies the present worth of the cost stream divided by the present worth of the benefit stream. When the cost-benefit ratio is used, the selection criterion is to accept all independent projects with a ratio of 1 or less when discounted at a suitable discount rate, most often the opportunity cost of capital (see opportunity cost).

Degradation: A persistent loss in the capacity of ecosystems to deliver ecosystem goods and services.

Direct use value: The direct or extractive and consumptive use of natural biota includes wood for construction and timber as well as for energy purposes, medicinal products, edible fruit, herbs and vegetables as well as thatch and the value of livestock and the hunting of game.

Discount rate: The interest rate at which an agent discounts future events, preferably in a multi-period model. Often denoted as “*r*”. A present-oriented (or short-term orientated) agent discounts the future heavily, yielding a high discount rate.

Discounting: A method used to determine the monetary value today of a project’s future costs and benefits by weighting monetary values that occur in the future by a value less than 1 (the discount rate).

Disturbance: Natural or anthropogenic events or activities that significantly change the structure, content and/or function of ecosystems. Can lead to degradation.

Ecology: The study of factors determining the abundance and distribution of plant, animal, fungal and microbial species, including the interaction of all such organisms with one another and with their physical environment.

Ecosystem goods and services: The conditions and processes through which natural ecosystems sustain and fulfil human and other forms of life. Examples include the delivery of fuelwood (goods), the provisioning of clean water, climate maintenance (carbon sequestration), crop pollination, and fulfilment of human cultural, spiritual, and intellectual needs (services). Also known as Environmental services.

Ecosystem: The complex of living organisms, and their associated non-living environment, interacting as an ecological unit.

Gross Domestic Product (GDP): The value of the flow of domestic goods and services produced by an economy over a period of time, e.g., one year.

Invasive alien plant: Invasive plants are non-indigenous (introduced) naturalized plant species that produce reproductive offspring in very large numbers and thus have the potential to spread over a large area and to disrupt processes of native ecosystems.

Macroeconomics: The branch of economic theory concerned with the economy as a whole. It deals with large aggregates such as total output, rather than with the behaviour of individual consumers and firms.

Marginal analysis: An analytical technique that focuses on incremental changes in total values, such as the last unit of a good consumed, or the increase in total cost.

Marginal benefit: The increase in total benefit consequential to a one-unit increase in the production of a good.

Marginal cost: The increase in total cost consequential to a one-unit increase in the production of a good.

Market failure: A situation in which the behaviour of optimising agents in a market would not produce optimal allocation due to market inadequacies. Sources of market failures are, among others, monopolies or oligopolies, producers that have incentives to under-produce and to price above marginal cost, which then provides consumers with incentives to buy less than the optimal allocation and externalities.

Natural capital: The stock of physical and biological natural resources that consist of renewable natural capital (living species and ecosystems), non-renewable natural capital (sub-soil assets, e.g., petroleum, coal, diamonds, etc.), replenishable natural capital (e.g., the atmosphere, potable water, fertile soils), and cultivated natural capital (e.g., crops and forest plantations).

OVERVIEW OF RESEARCH

The review of second economy programmes: An overview for the Presidency's fifteen year review – Kate Philip and E Hassen

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Inequality, unemployment and poverty in South Africa – Fiona Tregenna and Mfanafuthi Tsela

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Rural sector

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Strategies to support South African smallholders as a contribution to government's second economy strategy Volume 2: Case studies – PLAAS

Review of the Eastern Cape's Siyakhula/Massive maize project – Norma Tregurtha

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How tenure security can increase access to economic opportunities for poor people – Lauren Royston (for Urban LandMark)

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Governance and governability: What are the challenges for an inclusive city – Monty Narsoo (for Urban Landmark)

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