



Rethinking the bioeconomy in the biodiverse global South

Presentation to the Sustainable Biotech
Innovation Symposium, Somerset West

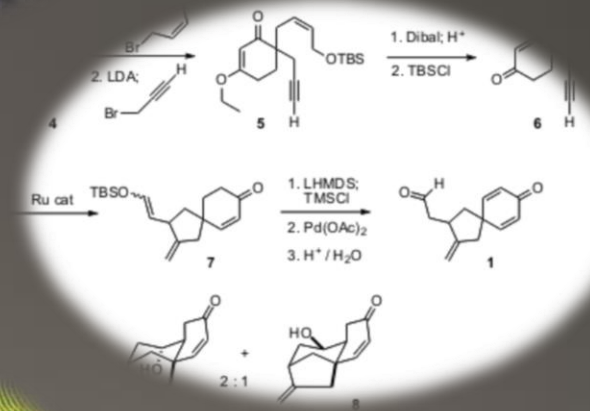
2 March 2020

RACHEL WYNBERG

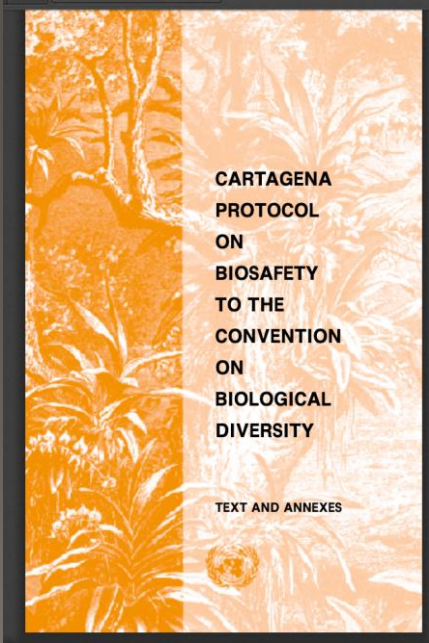
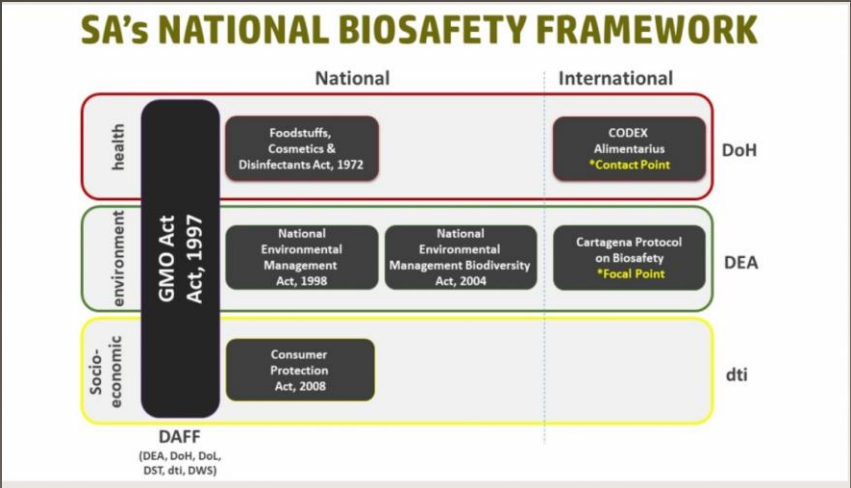
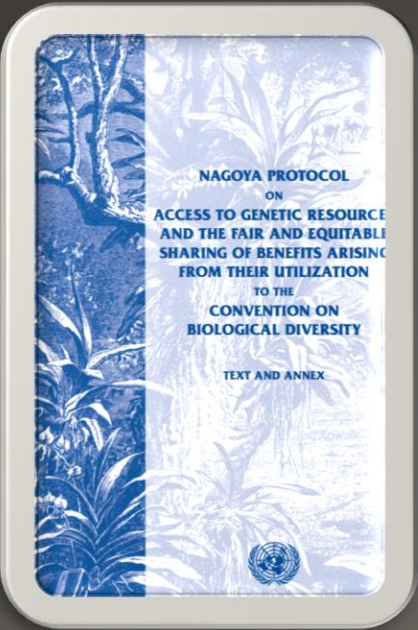
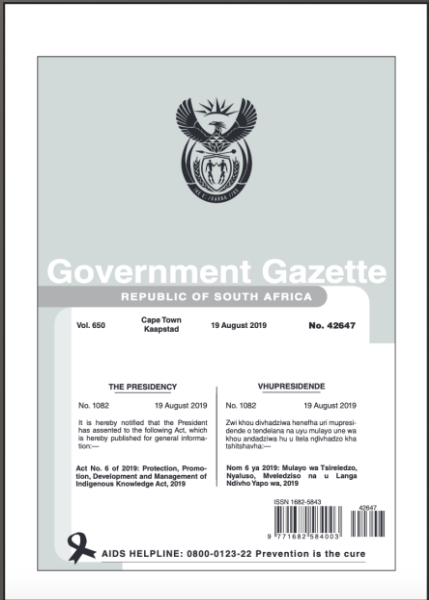
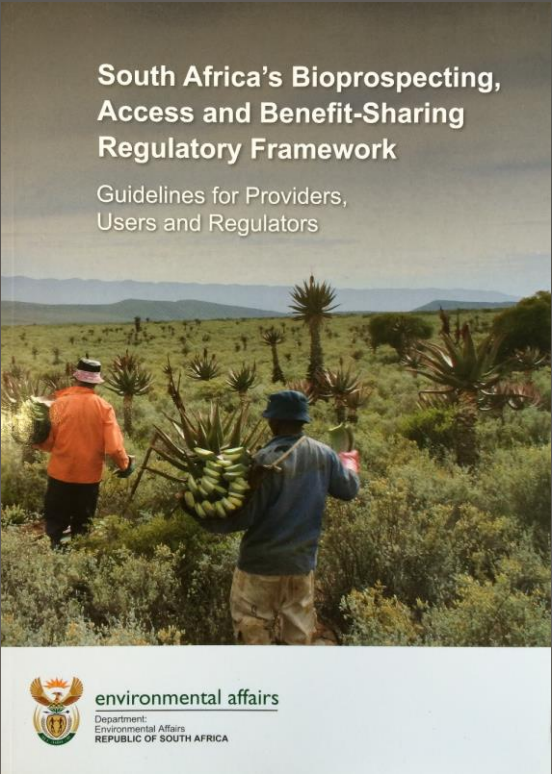
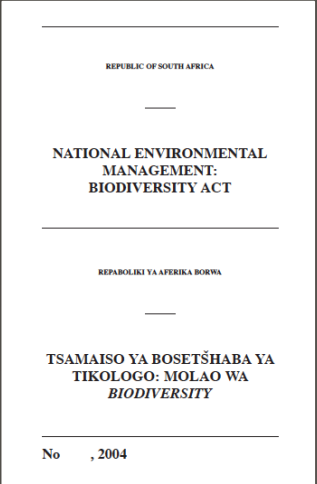
DSI/NRF SARCHI CHAIR: ENVIRONMENTAL AND SOCIAL
DIMENSIONS OF THE BIOECONOMY

UNIVERSITY OF CAPE TOWN, SOUTH AFRICA

Biodiversity is used in vastly different ways



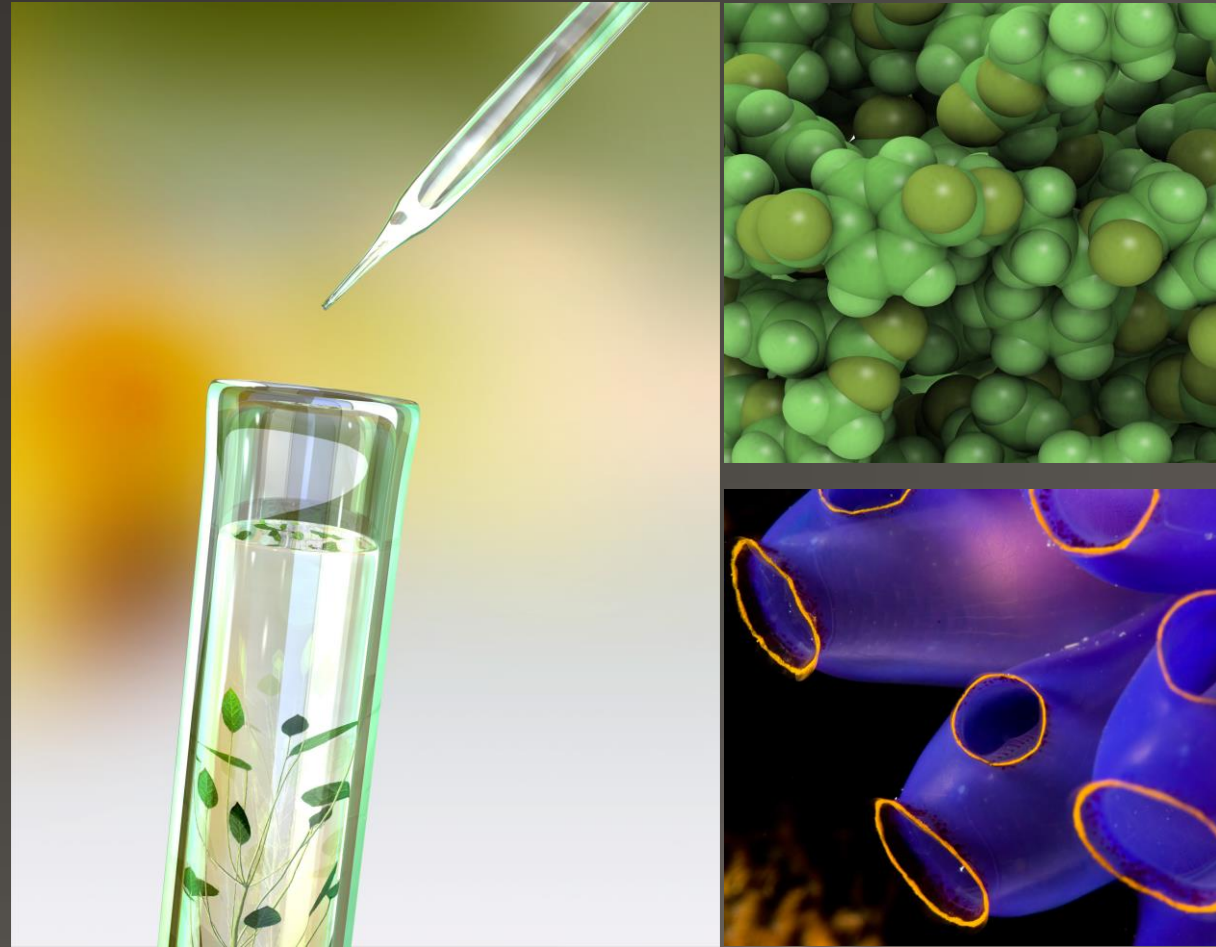
And regulated in very different ways



Dual economies, diverse histories, different drivers

- Non-timber forest products – long history of subsistence use. Critical for livelihoods. Typically regulated through traditional and customary systems of governance. Critical strategy for rural livelihoods (more than 12 million people). Basic needs the key driver.
- Increased commercial use of NTFPs – largely through biotrade, sometimes for biotech application. Often linked to consumer drive for natural products (eg baobab, Aloe).
- Biotechnology - strongly promoted by government as a development strategy (eg first African adopter of GM crops) with a genetics and molecular focus R&D intensive. Life science industries strong driver.
- Dualism in many components of the bioeconomy – eg uptake of subsistence resources and TK in global commodity chains; formal/informal economies

WHAT IS THE BIO-ECONOMY?



- European Commission: “.... the production of renewable biological resources and the conversion of these resources and waste streams into value-added products, such as food, feed, bio-based products and bioenergy.”
- OECD: “A world where biotechnology contributes to a significant share of economic output which needs to be contextualized within a Green Economy”.
- US: “Economic activity that is fueled by research and innovation in the biological sciences “(2012 National Bio-Economy Blueprint)



SOUTH AFRICAN DEFINITION (BIOECONOMY STRATEGY)

Activities that make use of bio-innovations, based on biological sources, materials and processes to generate sustainable economic, social and environmental development.

WHAT IS THE BIO-ECONOMY?

Biotechnology
Vision



Bioresource
Vision



Emerging ...?
'Agro/Bio-
ecology/Justice
Vision'



What technopolitical choices are made?

By whom and for whom?

What societal visions do they convey as
“imaginaries”?

Hausknost et al, 2017

How do these imaginaries unfold in the
biodiverse Global South?



Commodifying
world view
contested

Biotech emphasis
contested: GE
risks?

Who benefits and
how?

Can IKS really
deliver
economic
benefits?

ABS laws?

Rights and
ethics?

Responsible
innovation and
social impacts?

The Biodiversity-Based Economy



National Biodiversity Economy Strategy

NATIONAL BIODIVERSITY ECONOMY STRATEGY (NBES)



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

March 2016



“... encompasses the businesses and economic activities that either directly depend on biodiversity for their core business or that contribute to conservation of biodiversity through their activities.” Includes bioprospecting and its application in a wide range of applications, as well as traditional knowledge.

Corporate Model Value Chain 2002

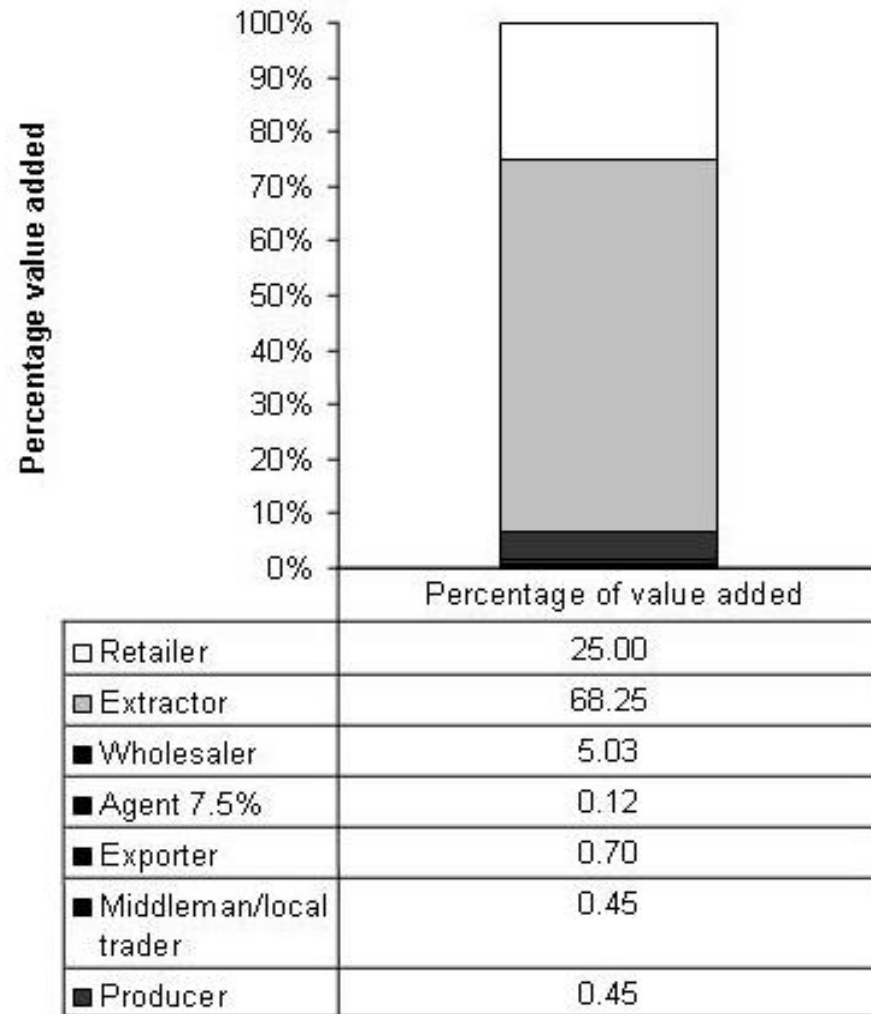


Photo: David Cole

National Department of Agriculture

NATIONAL STRATEGY ON AGRO-ECOLOGY

8th Draft

SEPTEMBER 2013



Discourses in South Africa

- *Death (2014) commenting on the Green Economy in South Africa. Four overlapping and sometimes competing discourses:*
- (1) **"Green Revolution"**: a radical, revolutionary transformation of the economy, society and relationships
- (2) **"Green Transformation"**: cf Brundtland – economic growth the driver through capitalism, Working for Water
- (3) **"Green Growth"**: green markets as an economic opportunity, expansionist vision, focus on technological solutions, commodification of ecosystem 'services'
- (4) **"Green Resilience"**: reactionary, cautious, protect the status quo

Questions for Discussion

What is the influence of external and global driven agendas on South Africa's Bioeconomy vision?

How can we develop transformative visions for more just and rights-based approaches for biodiversity-based livelihoods?

What participatory processes should be pursued to ensure that choices made are truly representative of wider society?

In light of these questions – how do we respond to the increasing move towards 'intangibles' – and the use of new genetic technologies