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WORKING TOGETHER FOR A
SUSTAINABLE FUTURE HERITAGE

STELLENBOSCH IDP/SDF DISCUSSION DOCUMENT

Prepared by Dennis Moss

Thought leader for e'BOSCH on
the Environment and the Cape
Winelands Biosphere Reserve

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*Culture ...
is who we are
shapes our identity
is a means of fostering respect and tolerance among people
is a way to create jobs and improve people's lives
is a way to include others and understand them
helps preserve our heritage and make sense of our future
empowers people
.... works for development.¹*

*Irina Bokova
UNESCO Director-General*

¹ Irina Bokova, UNESCO Director-General, and Helen Clark, UNDP Administrator, "Let's put culture on the agenda now". 2013

SYNOPSIS

Stellenbosch Municipality is in the process of preparing an Integrated Development Plan (IDP) and a Spatial Development Framework (SDF) for the Greater Stellenbosch. At the request of the executive committee of e'Bosch, this report was prepared by the undersigned in consultation with e'Bosch as a contribution to the public discussions that are taking place during the preparation of the IDP/SDF process and with due regard for the commitments e'Bosch have made in the joint endorsement of the Declaration of Intent between Stellenbosch Municipality and the University of Stellenbosch on 12 July 2012. At the heart of this commitment is to promote a mutual culture (a way of life), which could be handed down to future generations. e'Bosch views this culture as synonymous with a sustainability culture that arises from a sustainable development process. In democratic South Africa, a culture of the above kind commenced with Mr. Mandela's release from prison in 1990, that introduced a culture of cooperation and nation building and is consistent with the Bill of Rights of South Africa's Constitution.

In 2001 Stellenbosch Municipality was established in its current form and in 2007 its area of jurisdiction was included by UNESCO (United Nations Educational, Scientific and Cultural Organization) in the World Network of Biosphere Reserves in terms of its Man and the Biosphere (MaB) Programme. With the listing of the Cape Winelands Biosphere Reserve (that includes parts of the mountain range along its eastern boundary of Stellenbosch as World Heritage Sites) the Greater Stellenbosch was recognised as an international environmental asset of significance.

Since 2001 Stellenbosch has prepared a number of cycles of IDP's (Integrated Development Plans) and SDF's (Spatial Development Frameworks) that served as roadmaps for the Greater Stellenbosch. The revision and updating of the Stellenbosch IDP/SDF are once again underway. The review of the IDP/SDF is, for the first time, being prepared in accordance with legislation that had been aligned with the Constitution. A public participation process is underway to enable the public to contribute to its making.

This document is premised on the principle that, sustainable development has sustainability as its ultimate goal. e'Bosch is of the view that the promotion of a mutual culture, seen in this

context, is a way of life that drives behaviour and decision-making that promotes sustainability in practice. In this regard reference is, amongst other considerations made to the policy decision taken by the 3rd Congress of the UCLG (United Cities and Local Government) that recognised culture as the fourth pillar of sustainable development, the other three being environmental, social and economic.

The powerful role that culture can play in promoting sustainable development and long-term sustainability does not feature strongly in mainstream planning and governance and often does not take centre stage in decision-making pertaining to the preparation of IDP/SDF's. Ultimately, culture drives sustainable development and underpins long-term sustainability and would therefore shape the future heritage of the Greater Stellenbosch. In this regard it is accepted that, without an inclusive culture of sustainability, that is imbedded in the conscience of humankind, it will not be possible for humans to overcome the current threats to its existence, posed by climate change, pollution of the seas and the devastation of the natural integrity of the biosphere. Imbedded in the concept of culture is creativity that is a springboard required to unlock human capital that has to be employed synergistically together with monetary, environmental, infrastructural and social capital to enable sustainable development and sustainability. From a practical perspective, the spatial organizational and managerial portal through which a mutual culture of excellence and sustainability can be promoted in the Greater Stellenbosch is the Cape Winelands Biosphere Reserve in context of the Stellenbosch IDP/SDF. This also provides the route through which global partnerships could be forged, having regard for the principal objectives of UNESCO pertaining to education, science and culture.

e'Bosch recognises that culture and creativity are inextricably integrated and supports the principle that culture plays a decisive role in the promotion of the Creative Economy¹. The Creative Economy includes the Cultural Economy that has both consumer-demands and symbolic value characteristics (UNESCO/UNDP). These concepts should also be considered in context of the views of UNESCO/UNDP that "there is no such thing as *"the economy"*, but rather that all human-beings are caught up in rhythms, movements, relationships and exchanges of resources. These phenomena are grounded, lived, and guided by cultural norms and predilections" (UNESCO:UNDP 2013:24/25). In essence, this has to be translated into the

¹ Creative Economy Report UNESCO:UNDP 2013: Widening Local Development Pathways..

practical and implementable language of an IDP/SDF strategically, spatially and three-dimensionally as required in planning law policy and best practice.

This document provides a perspective of the role Stellenbosch could play in promoting sustainable development and sustainability in the preparation of the IDP/SDF with due regard for the Declaration of Intent of 12 July 2012. It starts by summarizing the background that had given rise to the current opportunities and the events relating to spatial and environmental planning and design that took place in the period 1990 – 2001 when Stellenbosch Municipality was formally established. A brief overview is provided of the history of the establishment of the Cape Winelands Biosphere Reserve and its current and future value. The nature and value of the Declaration of Intent is explained in context of the Constitutional principles relating to sustainable development, the legislative/policy framework and best practice required to make this explicit. This includes a motivation for recognising the imperative that spatial planning and design decisions have to be informed by a multi-scalar and normative decision-making process to ensure that optimal integration of decisions and concomitant actions would be achieved. In this regard best practice and spatial planning and design practices are highlighted and demonstrated in this document. The need for promoting a mutual culture of sustainability, to be considered in context of the spatial economy, the creative economy and the cultural economy, is briefly addressed. It is within this context that short-term IDP/SDF cycles are to be considered in medium-term (30 years) and long-term (50 years and more) planning horizon.

It emphasized that the establishment of partnerships on all scales is a critical success factor and that Stellenbosch University and the Municipality are the principal institutional role players in achieving this optimally, as is contemplated in the Declaration of Intent. The Cape Winelands Biosphere Reserve and its concomitant World Network of Biosphere Reserves provide a unique portal through which this can be optimally promoted and practically achieved.



DF MOSS

Thought leader of e'Bosch on the
Environment and the Cape Winelands Biosphere Reserve

EXECUTIVE SUMMARY

Stellenbosch Municipality is in the process of preparing an Integrated Development Plan (IDP) and a Spatial Development Framework (SDF) for the Greater Stellenbosch. As a contribution to the process, this report was prepared by Dennis Moss in consultation with e'Bosch, in context of the Declaration of Intent of Stellenbosch Municipality, Stellenbosch University and e'Bosch on 12 July 2012.

In essence, the 2012 declaration has committed the parties to create a mutual culture (a way of life) for the people of Greater Stellenbosch that could be handed down to future generations. To do this, the parties agreed that the voluntary participation of every Stellenbosch resident would be needed. During the past eight years the objective to promote a mutual culture has been advanced by e'Bosch through the implementation of projects that included organizing workshops with local communities on a range of subjects of community and general interest, organizing and staging local cultural events, festivals, leadership courses, heritage projects, sports events, environmental education, training relating to arts and crafts practice, music performances, etc.

All these projects promote inclusivity, participation, an enabling socio-economic environment¹ and an improved understanding of the natural environment and the responsibility to extend, enhance and to take care of it.

Specific efforts have been made by e'Bosch to involve people in the towns of the Greater Stellenbosch, rural areas, and hamlets (dorpies such as Vlotenburg, Lyndoch etc.) as well as historically disadvantaged neighbourhoods (Kayamandi, Cloetesville etc.).

The recognition by e'Bosch of the achievements of individuals, groups, teams, schools etc. is celebrated in an event hosted annually by the Mayor of Stellenbosch and the Rector of the University – this has grown into a significant inclusive opportunity to celebrate the achievements in advancing a mutual culture by the communities of Stellenbosch over the past seven years.

¹ "environment." means the surroundings within which humans exist and that are made up of—

(i) the land, water and atmosphere of the earth:

(ii) micro-organisms, plant and animal life:

(iii) any part or combination of (i) and (ii) and the interrelationships among and between them: and

(iv) the physical, chemical, aesthetic and cultural properties and conditions

of the foregoing that influence human health and well-being (National Environmental Management Act (NEMA))



STELLENBOSCH
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MUNICIPALITY • UMASIPALA • MUNISIPALITEIT



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

Verklaring van Voorneme

Die Erfenisprojek van Stellenbosch is daarop gemik om die mense van Stellenbosch saam te snoer; om 'n gemeenskap tot stand te bring wat

- mekaar ken
- mekaar waardeer
- mekaar respekteer

Die doelstelling van die projek is om Stellenbosch 'n dorp te maak waar ons mekaar en besoekers welkom, tuis en geborge laat voel. Die droom is dat alle Stellenbossers die vryheid van die dorp kan geniet en dat elkeen soos 'n ereburger sal voel met die lewensruimte en geleenthede om te floreer.

Om hierdie droom te verwesenlik wil ons as Stellenbossers 'n gemeenskaplike kultuur skep in samehang met bestaande kultuurtradisies. Die strewe is dat die gemeenskaplike kultuur deur die hele gemeenskap opgeneem sal word as 'n lewenswyse wat aan toekomstige geslagte oorgedra kan word. Hiervoor is elke Stellenbosser se vrywillige deelname nodig.

Declaration of Intent

The Stellenbosch Heritage Project seeks to unite the people of Stellenbosch; to create a community who

- knows one another
- appreciates one another
- respects one another

The project aims to turn Stellenbosch into a town where both residents and visitors are made to feel welcome, at home and secure. The dream is for every Stellenbosch resident to enjoy the freedom of the town and to feel like an honorary citizen, with the space and opportunities to flourish.

To realise this dream, we as the people of Stellenbosch want to create a mutual culture alongside existing cultural traditions. The aim is for the entire community to accept this mutual culture as a way of life, which could be handed down to future generations. To achieve this, every Stellenbosch resident's voluntary participation is needed.

Ukuwakalisa Ukuzibophelela

IPhulo lezelifa lezemveli laseStellenbosch lisebenzela ukumanya abantu baseStellenbosch ukudala uluntu oluza

- kwazana
- kubukana luthandane
- kuhloniphana

Injongo yeli phulo kukwakha idolophu apho abahlali neendwendwe ziya kwamkeleka; zizive zikhuselekile zisekhaya. Iphupha kukuba ummi ngamnye waseStellenbosch uya kuthatyathwa njengommi owongekileyo alifumane ilungelo lokukhululeka kule dolophu apho indawo evulekileyo namathuba aya kuvunyelwa akhule.

Ukufikelela kweli phupha thina singabantu baseStellenbosch masizame ukwakha inkcubeko efanayo ehamba kunye nezithethe zethu ezahlukeneyo. Ukufikelela kweli phupha lenkcubeko efanayo nokunikezela indlela yokuphila kwizizukulwana ezizayo kufuneka inkxaso yoluntu lonke. Ngako oko ukuthatha inxaxheba ngokuzithandela kommi ngamnye waseStellenbosch kuya kunceda ekufikeleleni kweli phupha likhulu.

Verklaring van Voorneme Declaration of Intent Ukuwakalisa Ukuzibophelela

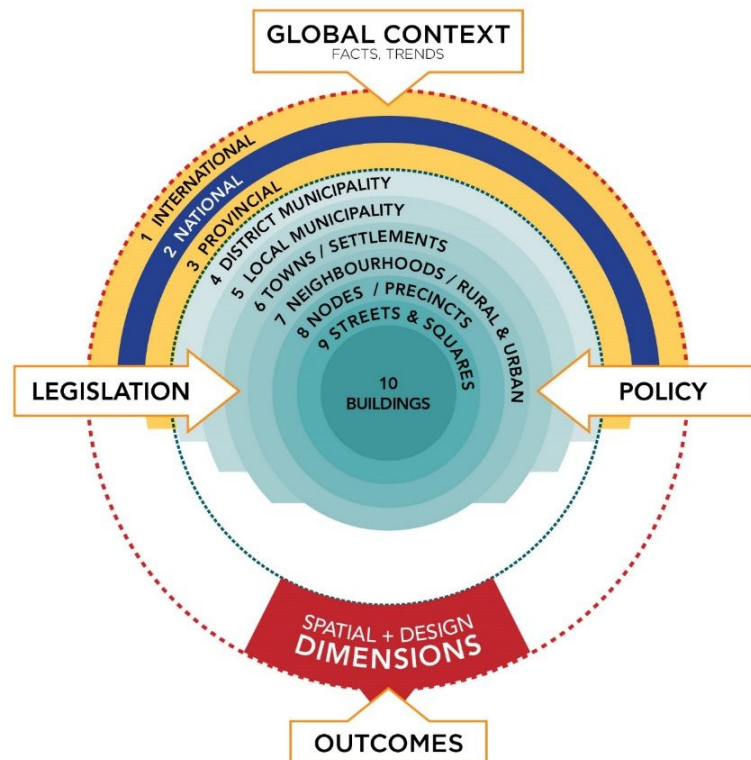
An IDP must be prepared in terms of the Municipal Systems Act (MSA) of 2000 that, amongst other requirements, must reflect the municipal council’s vision for the long-term development of the municipality and must include a spatial development framework (SDF) that should include basic guidelines for a land use management system for the municipality. In terms of the MSA, a municipality must establish a performance management system that should promote a culture of performance. A municipality must, in terms of the MSA, exercise their executive and legislative authority within the constitutional system of cooperative government.

Furthermore, the Constitution requires that international treaties, entered into or endorsed by the national executive, should be viewed as part of South African law and policy and should be respected (Section 231 of the Constitution). It is also to be noted that since 2016 an SDF must comply with the National Spatial Land Use Management Act (SPLUMA) and the Land Use Planning Act (LUPA) of the Western Cape that has been aligned with the Constitution of South Africa that came into effect in 2016. Furthermore, South Africa was a signatory to both the UN Agenda 2030 and the Paris Agreement on Climate Change (that also came into effect in 2016). Stellenbosch Municipality endorsed a national agreement with UNESCO in support of the establishment of the Cape Winelands Biosphere Reserve and the promotion of UNESCO’S Man and the Biosphere (MaB) Programme in 2007. The Cape Winelands Biosphere Reserve has been included in the World Network of Biosphere Reserves (one of 686 biosphere reserves) and incorporates a number of World Heritage Sites that are included in the Stellenbosch municipal area. It is an unique South African asset, recognised as an area of extraordinary value globally.

In the first addition of the National Development Plan (NDP) in 2012, it was stated that South Africa needs to “showcase its excellence”. Ultimately, the excellence of the municipal sphere of government would be measured by the degree to which a municipality and its people give practical effect to the vision and objectives of its IDP/SDF that would, in turn, demonstrate excellence in promoting sustainable development and long-term sustainability, as contemplated in the Constitution. This is a shared responsibility between a governing municipal council, every staff member of the municipality and the people of the greater Stellenbosch.

Given the progress that had been made during the enfolding democratization of local government during the past thirty years and the recent commitment to the UN Agenda 2030 on Sustainable Development and the Paris Agreement on Climate Change, the people of Stellenbosch have been enabled to undertake land use planning, design and the management of resources in the Greater

Stellenbosch in a globally integrated manner. It is therefore of particular importance that the IDP/SDF should be founded on the principle of sustainable development and long-term sustainability considered in a global context. The diagramme below illustrates an integrated planning approach, where decisions would be informed by legislation and policy on all scales, from the international to the local scale.



Multi-scalar integrated planning/design approach and the principal decision-making informants

(Source: Dennis Moss Partnership)

The Constitution requires decision-making pertaining to sustainable development (that includes the promotion of human well-being and the protection of the integrity of the natural environment) to be normatively informed. In this regard, the principles of the National Land Use Management Act (SPLUMA, that is a framework act) and the Land Use Planning Act (LUPA) of the Western Cape, that is a governing act, must inform decision-making pertaining to the preparation of IDP's and SDF's. These are:

- Spatial justice,
- Spatial efficiency,
- Sustainability,
- Resilience and,
- Good administration

Legislation and best practice also require spatial planning (that includes design and management) to be considered on all scales in an integrated manner. For example, the planning of towns and settlements (Scale 6 on the diagramme above) should be considered with due regard for Scales 1-6 and 7-10.

In terms of legislation, these principles should be made explicit on all scales. Having regard for the fact that any one of the scales illustrated above, inform decisions that affect the other scales, it has to be recognised that places are always contained by other places and that the origin of places, their history, culture and the aspirations of people living in these places most often differ and are both place-specific and general in nature. Planning and design of places should therefore ideally be considered in context of place-specific informant and must be informed by other applicable legislation, policy and best practice. In this regard it must, amongst other considerations, be noted that the National Environmental Management Act (NEMA) advocates a risk averse and cautious approach to be followed in the preparation of development proposals and the assessment of environmental impacts. This should take into account the limits of current knowledge about the consequences of decisions and actions.

This cautious approach should apply to the preparation of the five-year cycles of municipal IDP's and SDF's as they are to be prepared with due regard for medium-term planning (30 years) and with due regard for the long-term (50+ years) planning horizons. Ideally municipalities should therefore prepare bespoke SDF's for the medium term in order to make informed contextual short-term decisions. In this regard, it is recognised that Stellenbosch Municipality has already undertaken significant medium and long-term planning during the past number of decades. Specific reference is made to the endorsement of UNESCO's Man and the Biosphere (MaB) Programme in 2007 and its concomitant Development Framework of 2009, as well as a range of current plans, including its recent Stellenbosch Heritage Inventory and Management Plan² of 28 May 2018, the Nature area plan for the Paradyskloof³ area of 2018 and the overarching Stellenbosch Environmental Management Framework⁴ (SEMF) of 2019.

² Cape Winelands Professional Practices in Association (Pty) Ltd (Fabio Todeschini and Liana Jansen). Stellenbosch Heritage Inventory and Management Plan. May 2018

³ Consultative Draft. Stellenbosch Municipality. Paradyskloof Nature Area Environmental Management Plan. September 2018

⁴ Stellenbosch Municipality 2019. Stellenbosch Environmental Management Framework

For e’ Bosch to consider its participation in the current SDF review process, it would therefore be of value to consider the role that Stellenbosch had played during the past 30 years in context of medium and long-term planning of the Cape Town metropolitan region and the Winelands district.

In this regard, it is an imperative to consider Stellenbosch in global context and the fact that the world is at the cusp of a technological revolution that is set to change the world as we know it fundamentally. In this regard, global trends are important considerations that would affect medium term local planning. Whilst there is a general perception that everything in the world is getting worse, global facts and trends, in many respects, indicate the opposite (Rosling⁵). He demonstrates that the rate of human population growth is slowing, and that poverty, inequality, health and well-being are improving globally. He argues that, *“it is easy to be aware of all the bad things happening in the world. It’s harder to know about the good things: billions of improvements are never recorded”* (Rosling 2018:51). Furthermore, he argues that *“in order for this planet to have financial stability, peace, and protected natural resources, there’s one thing we can’t do without, and that is international collaboration, based on shared fact-based understanding of the world. The current lack of knowledge about the world is therefore the most concerning problem of all”* (Rosling 2018:49 – emphasis added).

There is an important message in this statement for Stellenbosch, in that we are in an era where globalization opens up opportunities and competitive advantages. Stellenbosch needs to build upon these advantages and the IDP/SDF is the collective instrument to facilitate this.

It is also of decisive importance to recognise that, whilst progress is driving global civilization, a cloud hangs over it (literally). The world is heading towards potentially shocking consequences with the acceleration of global warming and the deterioration of natural ecological systems. It is for this reason that the Paris Agreement on Climate Change forms part of the UN 2030 Agenda for Sustainable Development. The success of the waves of progress since the industrial revolution in the late 1700’s had come at a huge cost (refer Chapter 6 below).

The scale of this problem was recently explained by Al Core⁶ during a recent interview pertaining to global warming at the Davos World Economic Forum where he, amongst other indicators, stated that the extra heat energy released in the earth’s natural system every day is equivalent to what would be released by 500 000 Hiroshima class atomic bombs exploding on the surface of the earth every 24 hours. Whilst a target of maximum 1.5°C warming of the atmosphere has been set, it seems unlikely

⁵ Rosling: 2018 Factfulness. Factfulness AB. New York.

⁶ Environmentalist who served as the 45th Vice President of the United States from 1993 to 2001.

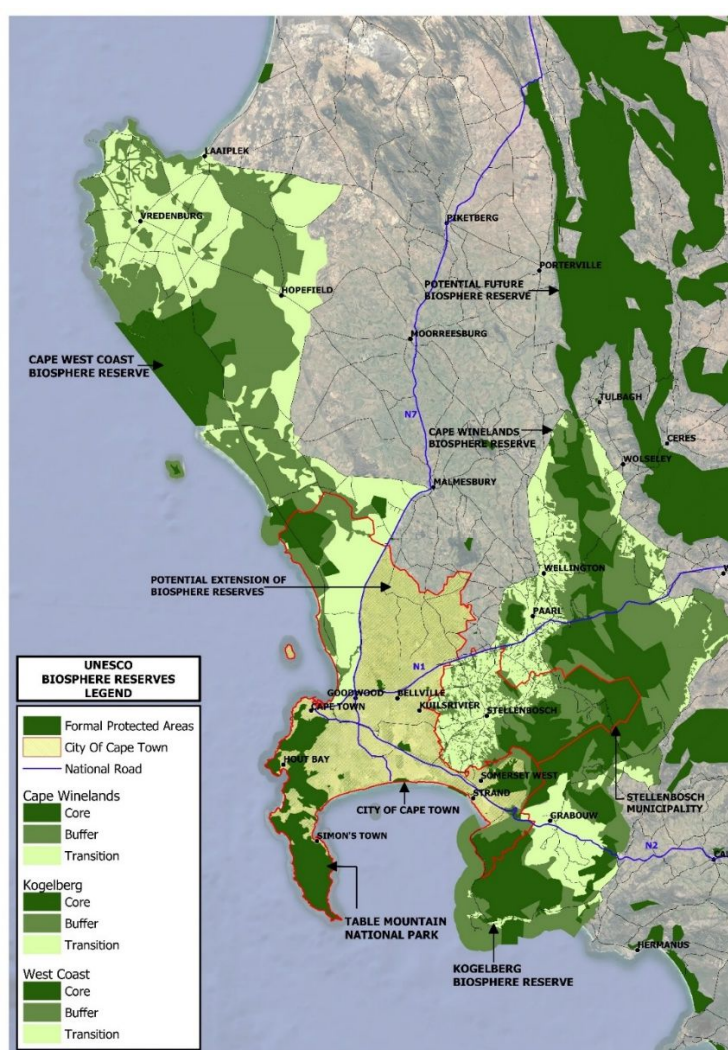
to be achieved. To this must be added the extreme deterioration of life in the biosphere⁷. Of great concern is ecological threats to biodiversity on land and in the sea. In many parts of the world insect populations on which the global ecological system depends, are dropping at alarming rates decade after decade and the extinction of species in many regions is becoming common place. Climate Change is accelerating fast, and scientists predict that the point of no return is less than 20 years away. It is clear that time is of the essence!

When all is said and done, the deterioration of the natural habitat of the world is the work of humankind, driven by a global culture (way of life) that is unsustainable. The current prospect is that past and present generations would have created a world where future generations will be trapped in a degraded environment from which they cannot escape. The successful implementation of the integrated sustainable development programmes, as provided for in the UN 2030 Agenda on Sustainable Development and the Paris Agreement on Climate Change, are imperatives if the drastic deterioration of the natural environment that life on earth depends, is to be avoided. The statutory framework, that governs development and conservation in South Africa, read together with the UN 2030 Agenda for Sustainable Development, Paris Agreement and other UN programmes, has provided a roadmap for long-term sustainability and these international programmes should be principal informants for IDP/SDF decision-making.

Global sustainable development is dependent on the implementation of bespoke local sustainable development programmes and projects. The portal through which this can be achieved in the Greater Stellenbosch is the UNESCO approved Cape Winelands Biosphere Reserve considered in context of South African's legislative and policy directives and informed by the above-mentioned international agreements. Much of what is needed to address these global and local developmental challenges on the local scale is in place. Being part of the World Network of Biosphere Reserves, Stellenbosch can play a leading role to demonstrate how, on local authority scale, this global challenge can be addressed locally to help humanity to attain a state of sustainability. A principal instrument to achieve this on the local scale is the IDP/SDF of Stellenbosch. The terms of the formal agreements between South Africa and UNESCO and the endorsement thereof by Stellenbosch Municipality in 2007, should ideally be incorporated as foundational principles of the IDP/SDF that should be inextricably linked to practical conservation development plans and action.

⁷ The thin layer of 500m below sea level and 12km into the sky where all life occurs. This is equivalent to a distance between Stellenbosch and Somerset West. 80% of life occurs in half this space.

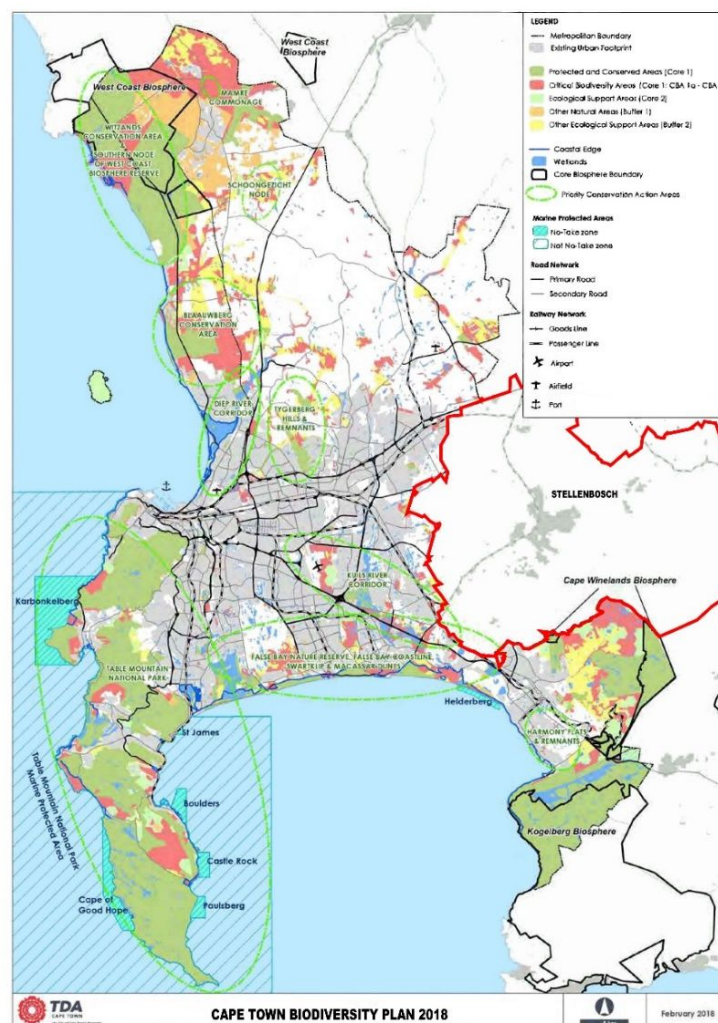
The Cape Winelands Biosphere Reserve, the Kogelberg and West Coast Biosphere Reserves together with the Cape Town Bioregional and Biodiversity plans (that include the Table Mountain National Park), form the core component of one of the most significant bioregions in the world (illustrated by the plan below). The commitments made in this area have created an extraordinary framework within which sub-regional sustainable development planning can be undertaken within the framework of bioregional planning⁸. Considering the Stellenbosch IDP/SDF within this context provides a completely different perspective on medium and long-term planning and having regard for the international commitments made, should inform short- and medium-term planning of the Stellenbosch IDP/SDF cycles.



The three biospheres east and west of Cape Town. West coast and Kogelberg are partially included in Cape Town City.

⁸ Bioregional planning takes place on the sub-regional level and its boundaries are defined by watersheds, vegetation types, biodiversity considerations and human settlement patterns. It provides a bespoke context within which administrative boundaries are to be considered.

The sum total of the aims of municipal legislation and policy read together with UNESCO's MaB Programme is to promote a culture of sustainability, locally and globally. Furthermore, it is to be noted that the UN has identified the MaB Programme as a principal instrument to demonstrate practically how the 17 Sustainable Development Goals (SDG's) of the UN 2030 Agenda for Sustainable Development could be given effect. In this regard, UNESCO has, in a UNESCO publication "Culture and Agenda 2030", provided guidance on how culture can contribute to the promotion of sustainable development through the implementation of the 17 Sustainable Development Goals (SDG's) of the UN 2030 Agenda for Sustainable Development (Chapter 4 below). Having regard for the latter it would be desirable to, on the bioregional scale, prepare a biodiversity plan for the Greater Stellenbosch, similar to the Cape Town Biodiversity Plan (refer to the plan below). It would also add great value if the Drakenstein Municipality and the Saldanha Bay Municipality would consider doing the same. This will establish a foundation for the planning/integration between the three biosphere reserves across the area of jurisdiction of Cape Town as well as the Drakenstein and Stellenbosch Municipalities.



The Declaration of Intent between Stellenbosch Municipality, Stellenbosch University and e'Bosch on 25 July 2012 resonates with both the UN Agenda 2030 Goals and targets, as well as with the MaB Programme and with the Paris Agreement on Climate Change and is consistent with the Constitution and the legislation and policies that circumscribe the preparation of Stellenbosch IDP/SDF. The central objective of the 2012 declaration was to *“Create a mutual culture alongside existing cultural traditions. The aim is for the entire community to accept this mutual culture as a way of life, which could be handed down to future generations. To achieve this, every Stellenbosch residents’ voluntary participation is needed”*. The IDP/SDF of Stellenbosch is an instrument that can be employed to achieve this most optimally.

It is within this context that the challenges facing Stellenbosch can be addressed. The most acute challenge is to address the pace and extent of the rapid urbanization that Stellenbosch has experienced over the past number of decades that has, in the view of many people, become overwhelming. To this challenge must be added the need to address the legacy of historic injustices that has manifested itself in rising crime, violence, concomitant urban decay in some areas, inequality, lack of affordability of decent housing and poverty. These are huge challenges that have to be overcome and that would require responses that would measure up to the scale of the challenges. The framework within which this has to be addressed is the IDP/SDF that should enable the implementation of an optimal sustainable development process to be implemented over the short and medium term in context of long-term planning criteria.

Having regard for the commitment to the UN Agenda 2030, the Sustainable Development Goal (SDG) No. 11 that addresses community and urban development (one of the 17 UN SDG's) should ideally inform IDP/SDF decision-making. In the latter regard, reference is also made to UN Habitats recommendation to, *first identify the key principles and objectives that are to be achieved and then to demonstrate how to give effect to these*⁹. In this regard, differentiation should ideally be made between short (5 years) and medium term (30 years).

Urban development and concomitant conservation challenges sit at the heart of the SDF. These are complex matters that have to be expressed spatially and the question arises how this has to be done on the settlement scale? It would be safe to say that the starting point should be the Constitution and the bespoke laws that govern spatial planning and sustainable development. The Constitution

⁹ UN Habitat Planning for Climate Change: A Strategic value-based approach for Urban Planners 2010

requires normative decision-making to guide spatial and development planning and design. In essence, good settlements are to be pursued.

It is recommended that an appropriate starting point would be to employ the methodology developed by Lynch in his seminal work – “*A Normative Theory of Good City Form*”. As mentioned above, SPLUMA and LUPA require five principles to inform decision-making: *spatial justice, spatial efficiency, sustainability, resilience and good administration*. The first two of these are efficiency and justice that Lynch¹⁰ refers to as meta-criteria, “**which are always appended to any list of good things**” (Lynch 1998:118). According to Lynch, Efficiency is the cost, in terms of other valued things, of creating and maintaining the settlement, for any given level of attainment and Justice is the way in which environmental benefits and costs are distributed among persons according to some particular principle such as equity, need, intrinsic worth, ability to pay, effort expended contribution or power. Justice is the criterion which balances the gains among persons, while Efficiency balances the gains among different values (Chapter 4.1 below).

In considering the plans, strategies and actions to advance good settlement form, it would be an imperative to answer the question of how efficiency and justice would be served in any proposal made! Lynch provides guidance on this. From a spatial planning and development perspective he has identified five performance criteria (dimensions) that can be measured solely by reference to the spatial form of the settlement – these are *vitality, sense, fit, access* and *control*. To each of these five performance criteria, the two meta criteria, efficiency and justice should be appended.

In the allocation of resources in the IDP/SDF spatial planning process, one should therefore ask,

- What is the cost (in terms of anything else we choose to value) of achieving the desired degree of vitality, sense, fit, access and control in the settlement as a whole? and,
- Who is getting how much of it? (refer Chapter 4.1 below).

It is an imperative to recognise the role that a qualitative built environment and cultural landscapes play in the long-term sustainability of Stellenbosch. This heritage should include an understanding of place as an art form that had developed over centuries. This art form has to be viewed in a multi-scalar perspective that starts with the building scale. Buildings are literally the building blocks of all settlements, the way buildings are designed (their aesthetical appearance), the way they are located on the land to create spaces and places that have meaning for those that live in the settlement, have to be guided by design principles and criteria provided in the SDF, “*every community needs a symbol*

¹⁰ Lynch, K, 1998. Good City Form. MIT Press (Originally published as, A Normative Theory of Good City Form in 1981 by MIT Press).

of its existence and ... much of community frustrations has come into being because the visual reason for its life is missing “ (Sitte¹¹ p viii). Creativity in the design of the built and landscape environment should be inextricably linked to spatial planning.

The promotion of qualitative development has been recognised as a priority in the planning policy of the Greater Stellenbosch for decades. A rule of thumb guideline that is proposed in the 2000 Winelands Integrated Development Plan (WIDF) and in the 2003 Bioregional Planning Policy of the Western Cape Province is to promote and maintain a: *sense of place, history, nature, craft and limits* in project planning and design decision-making and development.

The work done by e'Bosch across Stellenbosch is cross-cutting in nature, it strengthens a culture of inclusivity and promotes the advancement of mutual values upon which optimal integrated decision-making and actions depend. If the plans and activities of e'Bosch are aligned with the IDP/SDF and if the latter is aligned with the UNESCO's MaB Programme, sustainable development efficiency and justice would be increased. SDG 17 of the UN 2030 Agenda specifically focuses on the critical role that partnerships play in optimizing sustainable development. Integrated partnerships across the board hold tremendous promise for the successful advancement of sustainable development. e'Bosch, Stellenbosch Municipality and Stellenbosch University have, in the spirit of the 2012 Declaration of Intent, played a constructive role in laying the foundations for such partnerships and could contribute towards partnerships in general to become a feature of the culture of sustainability of Stellenbosch. The IDP/SDF are the principal instruments to strengthen this. It is imperative to recognize that the values upon which sustainable development are built are, in essence, ethical. The MaB Programme subscribes to the notion that ethical values form the basis of decision-making and action in accordance with an ideal accepted in a given moral system. It is accepted that what makes ethical values different from all other values, is their overriding character. They articulate an imperative, or a 'must', that cannot be escaped by anyone who subscribes to them and they are converted into practice through principles and rules. The pillars of sustainable development i.e. the promotion of human well-being and the enhancement of the integrity of the natural environment, are founded on ethical values. The principles through which these values should be given effect, include the just and efficient use of resources (capital) in accordance with legislative and official policy frameworks. The ethical domain is therefore the principal framework for sustainable development. *“Ethical values form the basis of decision-making and action in a given moral system. It is accepted*

¹¹ Sitte Camillo. The Art of Building Cities. Martino Publishing. Mansfield Centre, CT, 2013.

*that, what makes ethical values different from all other values is their overriding character. They articulate an imperative or a 'must', that cannot be escaped by anyone who subscribes to them and they are converted into practice through principles and rules". If the imperative or 'must do' that flows from an ethical value is denied, then that value and its importance itself is denied. Such a denial is therefore not a matter of arbitrary choice - the ethical domain is circumscribed not only by the value choices made by humans, but also by the critical weighing of the expected consequences of their choices"*¹²

In the 2012 NDP document, a call was made for a new way of thinking. With South Africa's formal commitment to the UN 2030 Agenda for Sustainable Development, the Paris Agreement and UNESCO's MaB Programme, the doors have opened for South Africa to do so as an international partner. The preparation of the IDP and the SDF for Stellenbosch creates an opportunity for these documents to be pioneering global projects, having regard for the fact that the Greater Stellenbosch is entirely located in the Cape Winelands Biosphere, that forms part of the 686 strong World Network of Biosphere Reserves. At bottom, the challenge is to create a mutual culture for the Greater Stellenbosch as is contemplated in the Declaration of Intent of 2012 that would promote long-term sustainability. The SDF/IDP review that is, for the first time in the history of Stellenbosch, to be aligned with the Constitution in accordance with constitutionally aligned legislation and policy, provides the portal through which sustainable development can be promoted and provides a roadmap for long-term sustainability to be facilitated in global context. The MaB Programme is an instrument to promote integrated multi-scalar participation for institutions, business, NGO's, communities and individuals to work together to promote this culture and to advance practical implementation in an integrated multi-scalar manner.

Sustainability could be optimized through multi-scalar partnerships as is contemplated in the Declaration of Intent and promoted in context of UNESCO's MaB Programme. In this regard, it would be of value to place the promotion of a sustainability culture centre stage and to have regard for the potential to advance the Creative Economy and the Cultural Economy, as advised in the UNESCO and the UNDP Creative Economy Report and having regard for the spatial economy that is a principal dimension of the Stellenbosch IDP/SDF (refer Chapter 5.3 below).

◦ ----- ◦

¹² UNESCO, 2010: The Ethical Implications of Global Climate Change. COMSET. SHS-2010/WS/1. France. Paris

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e'BOSCH
10 DORPIES

WORKING TOGETHER FOR A
SUSTAINABLE FUTURE HERITAGE

*There is an urgent need to find
new development pathways
that encourage creativity
and innovation in the
pursuit of inclusive,
equitable and sustainable
growth and development.*

UNESCO UNDP
Creative Economic Report
(2013)

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LIST OF ABBREVIATIONS

DMA	Density Mix Access
IDP	Integrated Development Plan
IPCC	Intergovernmental Panel on Climate Change
LED	Local Economic Development
LUPA	Land Use Planning Act (Western Cape)
MaB	Man and the Biosphere
MSA	Municipal Systems Act
MSDF	Metropolitan Spatial Development Framework
NEMA	National Environmental Management Act
NDP	National Development Plan
NGO	Non-Governmental Organisation
SDF	Spatial Development Framework
SDG's	Sustainable Development Goals
SEMF	Stellenbosch Environmental Management Framework
SPLUMA	Spatial Planning and Land Use Management Act
TOD	Transit Oriented Development
UCLG	United Cities and Local Government
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WIDF	Winelands Integrated Development Framework
WNBR	World Network of Biosphere Reserves

1. INTRODUCTION: TOWARDS SUSTAINABLE DEVELOPMENT

The development of a culture of sustainability that embraces the improvement of the state of the world by improving environmental and development conditions is a relatively recent global phenomenon. In the late 1960's, scientists warned against the overheating of the globe and climate change. This contributed directly to UNESCO launching its Man and the Biosphere (MaB) Programme in 1971. In the following decade the Brundtland Commission (1987), for the first time in history, defined sustainable development as: *"the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*.

These early steps gave rise to the first international UN conference on sustainable development in Rio de Janeiro in 1992. In 1995 a seminal conference was held by UNESCO where the Seville Strategy on Biosphere Reserves was adopted that serves as the foundation of the Man and the Biosphere Programme to this day.

During 2015 both the UN Agenda 2030 on Sustainable Development and the Paris Agreement on Climate Change were adopted and endorsed by all the nation states who are members of the UN. These came into effect during 2016 and, for the first time in history, the world placed sustainable development at the centre of international cooperation and agreement.

2. LOCAL PROGRESS: THE PAST THIRTY YEARS

2.1. PERIOD: 1990-1996

Mr. Mandela's release from prison in 1990 paved the way for South Africa to align itself to an emerging global culture of sustainability and South Africans looked forward to a future where the country could play an important role in realizing this in practice.

Working towards such a goal became part of a culture that shaped South Africa and, in the field of urban and regional planning, significant milestones were achieved.

During the 1990's a process commenced to develop a vision for Cape Town and its region in an inclusive manner. This vision took place against the background of an initiative taken by Cape Nature Conservation in 1990 to promote the international policies and principles aimed at giving practical effect to sustainable development. Of particular significance was the environmental programmes of the UN (that had been suspended since 1974 due to apartheid). A strategy to achieve this was to

adopt the conservation and development principles of UNESCO's Man and the Biosphere (MaB) Programme in land-use planning, conservation and development in the Cape Floral Region (Fynbos Biome). This vision is spatially illustrated by Figure 1 below.

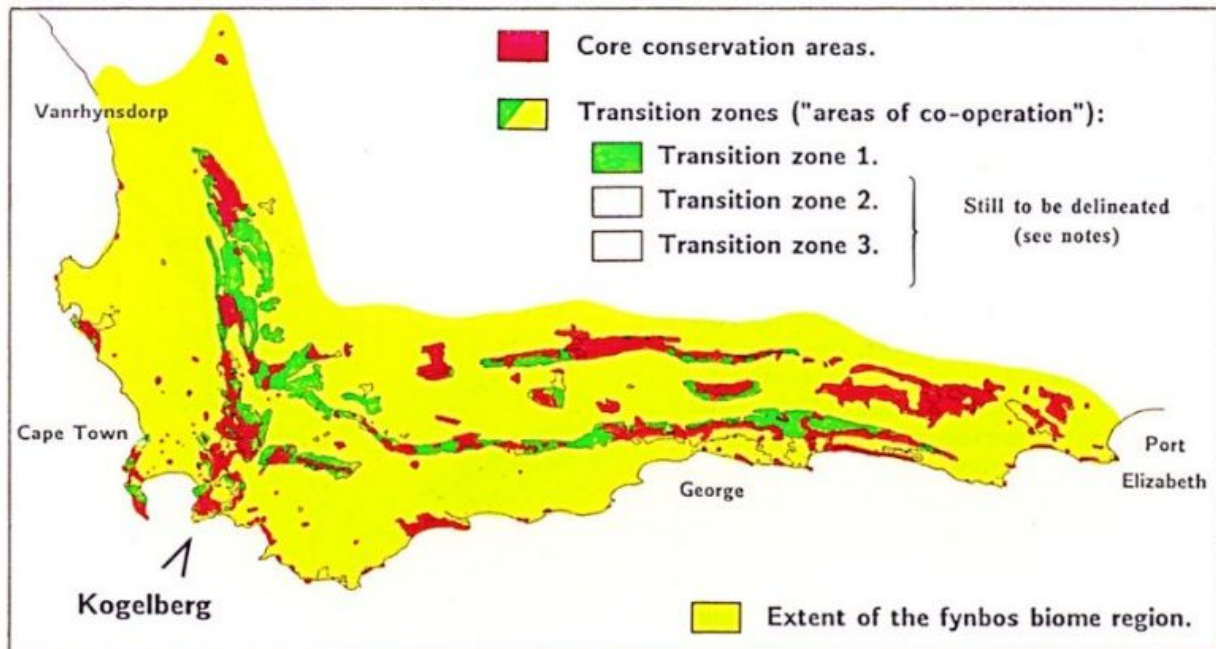


Figure 1: Vision for the implementation of the UNESCO MaB Programme in the Fynbos Biome (Cape Nature: 1990)

UNESCO's MaB Programme evolved as the principal informant for the adoption of a bioregional planning¹ approach for the Fynbos biome. This became the backbone of spatial planning in the Cape region for close on 30 years thereafter. The democratic elections of April 1994 created the platform to take the work in progress forward on the sub-regional planning scale. The early sub-regional master planning of the Cape area resulted in the preparation of a draft Metropolitan Spatial Development Framework (MSDF) in 1995. This was a product jointly created by provincial government, the Cape Town and Stellenbosch Divisional Councils, Cape Town Municipality and all the municipalities in the area, including Stellenbosch Municipality. This introduced a multi-scale co-operation on the sub-regional level and an introduction to adopting a bioregional planning approach that was later to provide key informants for the demarcation of Stellenbosch Municipality in its existing form.

¹ Bioregional planning takes place on the sub-regional level and its boundaries are defined by watersheds, vegetation types, biodiversity considerations and human settlement patterns. It provides a bespoke context within which administrative boundaries are to be considered.

2.2. PERIOD: 1997-2000: AN INTRODUCTION

The UNESCO MaB Programme and bioregional planning principles served as informants for the demarcation of the municipal boundaries in the Cape sub-region, that was undertaken in accordance with the Municipal Structures Act during this time. The Demarcation Board followed an inclusive democratic participatory process that included representatives of all municipalities, political parties, professional and academic experts, sectoral organizations including labour, agriculture, nature conservation, NGO's, communities and the general public.

The current demarcation of local authorities in the region came into effect in 2001. The rationale for the demarcation of municipal boundaries and their categorization into their current form was, to a significant degree, informed by the values, principles and norms that guided decision-making in the previous ten years. The above matters are addressed in more detail under Chapter 3.3 below.

2.3. PERIOD: 2001 – 2009

Stellenbosch Municipality played a leading role in taking bioregional planning principles of the MaB programme, that contributed to the demarcation of the local municipal areas in the region, forward. The historic settlement patterns and landscape character of both the built and natural environment, that had been recognised as unique characteristics of the Cape sub-region, became the principal informants for the first SDF's that were prepared for Category B (Local Municipalities) and Category C (District Municipalities) in the region. In essence, the locality of the Greater Stellenbosch (Category B Municipality) that shared a common boundary with Cape Town (Category A Municipality) and the maintenance and integrity of this settlement pattern of Stellenbosch, was considered an imperative for the long-term maintenance of the integrity of these two municipal neighbours. The enhancement of the cultural and natural landscape of the Stellenbosch Municipal Area, that is characterised by a nodal settlement pattern, with strictly enforced urban boundaries, was recognised by Cape Town and all the surrounding municipalities, provincial and national government as critical for its long-term sustainability and the maintenance of the character of the cultural and natural landscapes of the Winelands.

The planning and development principles and strategies that informed a vision for Stellenbosch in context of a future bioregion for the area, were based on the policies and guidelines of the Department of Environmental Affairs at the time. Of particular importance was the 2005 Strategic

Environmental Assessment Guidelines, focussed on the implementation of the concept of sustainable development to promote an integrated system of planning that incorporates sustainability objectives into the planning process.

Following on motivations submitted to the Department of Environmental Affairs by the Western Cape Government, the Winelands District Municipality was mandated to prepare an application to UNESCO in collaboration with Stellenbosch, Drakenstein, Breede River and Witzenberg Municipalities to have a portion of the district (Category C Municipality) listed as a Biosphere Reserve in terms of UNESCO's MaB Programme. This was a practical step to promote the early vision of the 1990's to have the Cape bioregion recognised as a unique area of global value. The Cape Winelands Biosphere Reserve (Figure 2 below) was formally listed on 18 September 2007 as part of UNESCO's World Network of Biosphere Reserves. In accordance with the agreement reached between the Department of Environmental Affairs and UNESCO, that was endorsed by the provincial government and all the municipalities in the Biosphere Reserve, a Framework Plan was prepared and approved in December 2009. This framework plan had the status of a Spatial Development Plan that was synonymous with an SDF in today's terms.

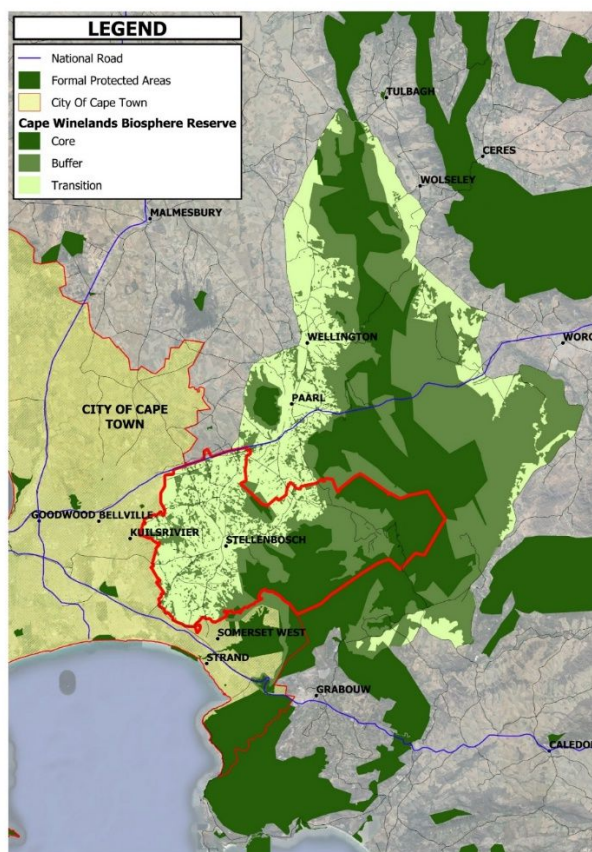


Figure 2: Cape Winelands Biosphere Reserve and the Greater Stellenbosch

2.4. PERIOD: 2009 - 2019

The Cape Winelands, Kogelberg and Cape West Coast Biosphere Reserves and Cape Town's Bioregional Plan that provides for an integrated system of conservation areas (including the Table Mountain National Park and a number of World Heritage Sites along the mountain ranges in the sub-region) represent the centre of the "hottest hotspot" of the Cape Floristic Region which is one of the six floral kingdoms in the world.

Stellenbosch Municipality played a leading role in establishing the Cape Winelands Biosphere Reserve and has endorsed the application for its listing and its Spatial Development Plan. Stellenbosch is both the curator of the maintenance of the principles upon which its demarcation of this stand-alone municipality was founded and a partner to help give effect to the internationally agreed-to cooperation to promote sustainable development and long-term sustainability of this unique region of the world.

UNESCO's MAB Programme is considered by the UN as a principal instrument to promote and give effect to the UN's 2030 Agenda for Sustainable Development (both endorsed by South Africa) and therefore a major instrument to promote sustainable development and to combat Climate Change as defined by the UN's Intergovernmental Panel on Climate Change (IPCC).

South Africa's Constitution requires international treaties to be regarded as part of South African law and it follows that Stellenbosch Municipality is committed to the MaB Programme and the implementation of its principles and objectives. In this regard it is also to be noted that the procedure recommended by UN Habitat² for planning projects of this nature is to "first identify and record the key principles and objectives and then demonstrate how to achieve them in practice". This should be the starting point for public participation in the IDP/SDF review process.

3. e'BOSCH THE DECLARATION OF INTENT AND SUSTAINABLE DEVELOPMENT

3.1. BACKGROUND

The principal aim of the Declaration of Intent was to promote a mutual culture for Stellenbosch alongside existing cultural traditions and to promote the acceptance of this mutual culture as a way

² UN Habitat Planning for Climate Change: A Strategic value-based approach for Urban Planners 2010

of life which could be handed down to future generations, whilst culture³ is the behavioural or characteristics of a particular group of people of a particular time, the mutual culture that is referred to in the Declaration of Intent should (having regard for the institutional status of the Municipality and the University, and the aim of its Declaration of Intent) be viewed as the promotion of a way of life that promotes the ideals of democratic South Africa and is therefore an inclusive concept. Consistent with the Constitution these would, amongst other objectives, include the promotion of equality, human dignity, prosperity and an understanding of the responsibility of society to protect the environment for the benefit of present and future generations. This has been a work in progress in Democratic South Africa since 1994.

The nature and character of a mutual culture specifically resonates with Section 24 of the Constitution that states that ... *“everyone has the right to have the environment protected for the benefits of present and future generations, through reasonable legislative and other measures that serve ecological sustainable development and the use of natural resources, while promoting justifiable, economic and social development”*.

A mutual culture should therefore be viewed as one that would be circumscribed by values, principles and standards in support of sustainable development and long-term sustainability – this is the kind of culture that, in terms of the Declaration of Intent, should be handed down from generation to generation. A mutual culture is therefore not transient and is considered to be the essence of enabling long-term sustainability (environmental, social and economic).

Sustainable development is the process that would lead to long-term sustainability. This requires a systems approach as proposed by the Department of Environmental Affairs (Figure 3).

3.2. SUSTAINABLE DEVELOPMENT AND LEGISLATION

Planning for and implementing sustainable development requires a systems approach. “Sustainable development is the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission 1987) – this is to be achieved in practice by promoting human well-being and the integrity of the environment by the just and efficient employment of capital (resources). Differentiation has to be made between

³ Culture can be defined as “the way of life, especially the general customs and beliefs of a particular group of people at a particular time” – Cambridge Dictionary.

environmental, monetary, infrastructural, social and human capital. In order to promote an optimal sustainable development process, these forms of capital have to be synergistically employed to enable the whole to be greater than the sum of its parts (NEMA).

Bespoke legislation and policies in South Africa, aligned with the Constitution, are in place to plan for and implement sustainable development. These are, most notably, the Spatial Planning and Land Use Management Act (SPLUMA), the Land Use Planning Act of the Western Cape (LUPA), the National Environmental Management Act (NEMA), the Intergovernmental Framework Act, the Subdivision of Agricultural Land Act and the Conservation of Agricultural Resources Act. SPLUMA is a framework act nationally and LUPA is a governing act of the Western Cape. Legislation requires capital to be employed synergistically to optimise sustainable development. Such forms of capital include Monetary, Environmental, Infrastructure, Social and Human Capital. The desired outcome of the efficient and just employment of capital should be that “the whole should be greater than the sum of its parts” (NEMA).



Figure 3: The Sustainable Development System

The fact that the above legislation and policies have sustainable development and long-term sustainability as their central goal and that the Constitution requires South Africa to, as a member state of the UN, cooperate globally to realize sustainability in practice, testifies to the imperative that values, inculcated in a mutual culture of sustainability, are shared globally.

3.3. GLOBAL CULTURE OF SUSTAINABILITY

It was only recently (especially after World War II) that a common (mutual) global sustainability culture emerged, based on the promotion of a way of life, characterised by shared values and a global cooperation. Since the 1960's an awareness emerged for the fragile nature of global ecological systems and the need to promote a way of life that respects the limits of the carrying capacity of the

earth. During the past 40 years a global culture of sustainability emerged and grew steadily. Landmark agreements in this regard were the;

- global adoption of the definition of sustainable development by the Brundtland Commission in 1987, as mentioned above;
- first world summit on sustainable development that took place in Rio de Janeiro in 1992;
- the seminal Seville MaB Conference that took place in 1995;
- UN's 2030 Agenda for Sustainable Development of 2015 and the;
- Paris Agreement on Climate Change that was also adopted in 2015.

A global culture of sustainability is destined to remain a distant prospect unless it is inculcated in the hearts and minds of individuals, small groups, communities and society at large to the extent that it truly becomes a way of life (culture) on all scales, from the local to the global scale.

As mentioned above, this is the principal aim of e'Bosch in the Stellenbosch municipal area, having regard for its commitments to the promotion of a mutual culture, as is contemplated internationally. In this regard it is recognised that human decision-making and behaviour are primarily influenced by culture. The global consumer culture, modern agriculture, car culture etc. are mainstream forces that place stress on global sustainability. A global culture founded on respect for the limits of the carrying capacity of the earth's finite resources (measured in terms of consumption and waste) is globally considered as the only way the ideals of long-term global sustainability can be achieved. A mutual culture can therefore be considered to be synonymous with a sustainability culture. The latter is to be promoted and achieved through a sustainable development process.

As mentioned, in the Western Cape the promotion of a culture of sustainability took a major step forward in the early 1990's when the then Cape Nature Conservation initiated and mobilized regional cooperation to employ the principles of UNESCO's Man and the Biosphere Reserve (MaB) in decision-making on the Cape Floristic regional scale (macro-bioregion). It was not until post 1994 that these principles could gain traction. Following on the seminal UNESCO conference on the MaB programme in 1995 in Seville Spain (to which South Africa was invited), the adoption of bioregional planning principles and the establishment of biosphere reserves in South Africa were formally committed to by the Western Cape Province in terms of its Bioregional Planning Policy (2001) and Manual (2003). The Bioregional Planning Policy and Manual of the Western Cape served as a first-order decision-making planning informants and provided the context for the preparation for IDP's and SDF's at the

time. The values, principles and strategies of this provincial policy and manual were principally informed by UNESCO's MaB Programme.

3.4. A RULE OF THUMB GUIDELINE FOR DECISION-MAKING

The rule of thumb guidelines for decision-making illustrated by Figure 4 below could be of value for e'Bosch members in their participation in the IDP/SDF process. It would also be a valuable informant in considering the programmes and projects that e'Bosch is planning for 2019 in terms of its commitment to implement the Declaration of Intent.

Since 1994 strategic planning and management were undertaken in terms of the emerging integrated development policies and principles and a number of IDP/SDF were accordingly prepared in the Cape region including those for Stellenbosch during the past 25 years. As from July 2016 integrated development planning had to be consistent with bespoke legislation that had to be aligned with the Constitution and in accordance with international treaties that South Africa was committed to.

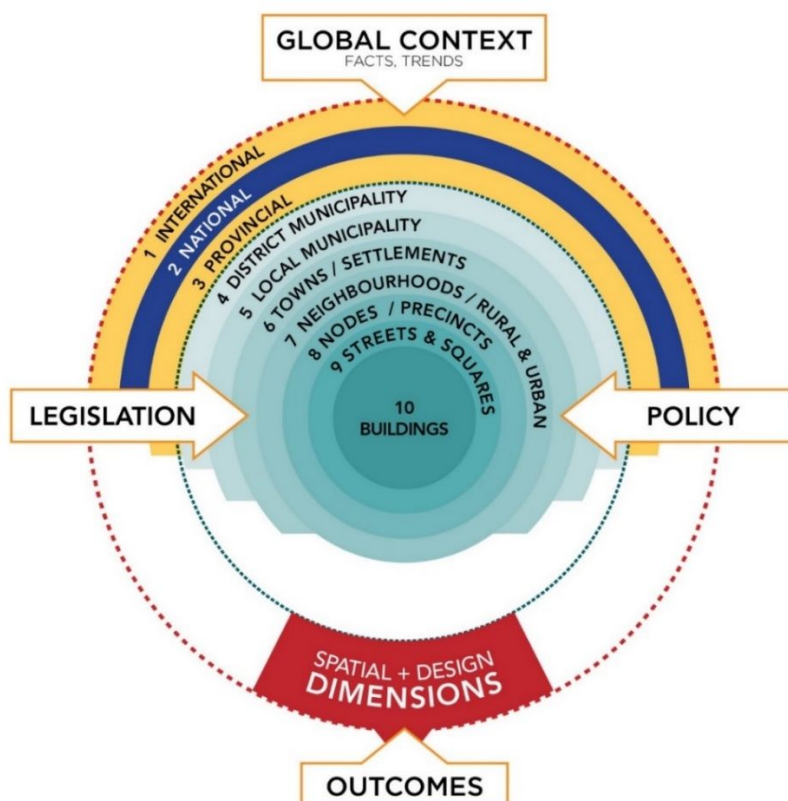


Figure 4: Multi-scalar integrated planning/design approach and the principal decision-making informants (Source: Dennis Moss Partnership)

4. UN AGENDA 2030 ON SUSTAINABLE DEVELOPMENT

The adoption of the UN 2030 Agenda for Sustainable Development and the Paris Agreement in 2015 presents a watershed along civilizations journey towards long-term sustainability. The structures to optimize international collaboration to achieve this in practice are now, for the first time in human history, in place and it is an imperative for the review of the IDP/SDF to be seen through this lens.

South Africa is a signatory of the UN 2030 Agenda for Sustainable Development, the UN supported Paris Accord on Climate Change and UNESCO's Man and the Biosphere (MaB) Programme. As mentioned, the latter is regarded by the UN as one of the principal global instruments to

promote and give practical effect to the UN 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDG's). The SDG's are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity. As is stated in the UN 2030 Agenda for Sustainable Development documentation, these goals are interconnected – often the key to success of one will involve tackling issues more commonly associated with another.



Figure 5: Sustainable Development Goals (SDG's) adopted by the United Nations on 25 September 2015.

In practice, this would require giving effect to the SDG's through the 169 targets (also referred to as indicators) of the SDG's by aligning the SDG's and applicable targets with the IDP/SDF strategically and spatially. Progress should ideally be measured in terms of bespoke methodologies aligned with municipal performance management systems.

4.1. PLANNING AND DESIGN OF THE RURAL AND URBAN ENVIRONMENT

The cultural and urban environment of the Greater Stellenbosch reflects a history of 340 years, spanning across the archaeological remains of the pre-colonial settlement in this area, its colonial past to the recent period of segregation and the current impact of the high levels of migration to the Greater Stellenbosch and the Cape Metropolitan region.

Making the Constitution explicit across the cultural and urban landscape is the central challenge facing all who live in this area. Constitutionally this has to be done by promoting sustainable development that should be guided by legislation and policy and that requires the employment of resources, efficiently and justly.

Much has been written about the uniqueness of the built and cultural environment of the Greater Stellenbosch. Plans and strategies to protect and enhance this heritage are addressed to a significant degree in previous and current municipal SDF's. Given the current legislation, policies and priorities, the focus of the SDF review process has to, in terms of legislation and policy, fall on how to enable sustainable development that is inclusive and that responds appropriately to a multi-scalar approach illustrated by Figure 4 above.

The single greatest challenge is how to address the rapid urbanization that the Greater Stellenbosch is facing and, in context of the latter to enable the Greater Stellenbosch to maintain its unique qualities and its global competitive advantages. For the past number of decades, a policy has been pursued to concentrate development in a hierarchy of nodal settlements with Stellenbosch, Franschhoek and Klapmuts as the principal centres. Klapmuts has been considered as the area with the greatest growth potential, being well connected with both Stellenbosch and Franschhoek and other smaller nodes, as well as with the N1. It is potentially a sub-regional centre if it were to be expanded northwards. It is the only node that has significant potential in Greater Stellenbosch for urban expansion and with space available for commercial and industrial development that the Greater Stellenbosch requires.

In the Greater Stellenbosch there are a number of informal settlement areas that require urgent and special planning attention and bespoke strategies for action. Integrated plans and strategies would have to be prepared that would optimize resource use. Innovative design and capacity building are required to enable sustainable development in these areas optimally. In particular, unconventional synergistic employment of capital (monetary, environmental, infrastructural, social and human) should ideally become the norm in addressing these challenges efficiently and justly. Furthermore, one of the most critical interventions is to generate renewable energy (electricity) for individual households, in a manner that would not add costs to the household expenditure. Energy supplied in this manner should also unlock additional multipliers through access to the internet and educational programmes that would improve human well-being. Multipliers should be scalable from the household, community, cooperatives to the neighbourhood scale (for example refer to www.inovasure.com).

From a design, construction and development perspective, new ways of thinking (as contemplated in the NDP) would be required to enable individuals, families and communities to be successful participants in shaping the places where they live in a manner that would resonate with the unique qualities of the Greater Stellenbosch. This will require innovative approaches that are currently under consideration by the SDF planning team. For example, approaches such as those advocated in the publication *Making Massive Small Change*⁴ that demonstrates how huge urban challenges can be successfully overcome by small actions. “*Harnessing the collective power of many small ideas and actions to make a big difference*” (Campbell 2018:12).

In addition to the rapid urbanization of the informal sector, the urban areas of the Greater Stellenbosch have consistently experienced high growth rates that put pressure on the urban and natural systems of the municipal area as a whole. The latter must be considered in context of the rapid urbanization in parallel to market related property development demand and supply forces experienced in Cape Town, Drakenstein and Greater Stellenbosch and *vice versa*. Space to accommodate the rapid urbanization, market related housing and commercial and industrial development in Stellenbosch is limited (with the exception of Klipmuts that was identified as a growth point for Stellenbosch decades ago). Innovative planning and design solutions would have to be agreed to in this regard. This should include qualitative densification of existing urban areas and the identification of new areas for expansion for subsidized, affordable and market related housing

⁴ Campbell Kelvin: 2018. *Making Massive Small Change*. Chelsea Green Publishing, White River Junction, Vermont London, UK

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and mix-use development. Of decisive importance is to pursue balanced solutions within context of the socio-economic and biophysical carrying capacity of the Greater Stellenbosch and the maintenance and enhancement of the qualities of its landscapes. A sense of limits will have to be recognised as imperative in this regard.

The preparation of an IDP/SDF is a complex matter and the question that can rightfully be asked is where one should begin. The objective is to prepare an SDF that would respond appropriately to the applicable constitutional imperatives on all scales, from the international to the local scale and that will have to be informed by constitutional norms and principles. It is also of importance not to consider the product of an SDF in spatial terms only. The human habitat is a lived-in three-dimensional space (social construction) with specific character and meaning. Traditional settlements (such as historic Stellenbosch) are good examples of such social constructions and demonstrate how their form and structure were determined by the culture of those who lived there. Whilst the remnants of traditional place-making principles are, to a degree, still found in new developments, modern settlement-form is largely determined by pre-established spatial subdivision patterns and development rules and financial/market forces that dictate development outcomes relating to density, building heights, building lines, total floor area etc. The form and character of settlement in modern times are at present predominantly the products of zoning schemes, planning by-laws and the commercial market.

SPLUMA/LUPA requires an SDF to provide guidance on the form and structure of settlements and to inform the preparation of planning schemes and by-laws, in terms of the principles ***of efficiency, justice, sustainability, resilience and good administration***. Municipal zoning schemes and planning by-laws should enable these principles to be translated into two-dimensional physical spatial planning and into three-dimensional physical form and structure, that would create character and atmosphere of a settlement that resonates with the unique sense of place of the Greater Stellenbosch (landscaping should form part of this).

In the period 1998 – 2000 the Winelands District Municipality prepared the Winelands Integrated Development Framework (WIDF). The WIDF area approximately corresponded to the area of jurisdiction of the current Stellenbosch and Drakenstein Municipalities (the area of the Cape Winelands Biosphere Reserve west of the Hottentots Holland/Drakenstein Mountain range). The WIDF was adopted by Stellenbosch Municipality in 2001. A volume entitled “Guiding Principles” was dedicated to the philosophy and good practice that should be considered in planning/design decision-

making in historical cultural landscapes and settlements that are located in unique natural landscapes. The WIDF was prepared in parallel to the Bioregional Planning Policy of the Western Cape that was, in turn, informed by the principles of UNESCO's MaB Programme (refer Chapter 5.3 below). The WIDF therefore addressed sustainable development consistent with current legislation and policy at the time. A strategy that was incorporated in the WIDF documentation was to demarcate neighbourhood areas across the WIDF area to serve as building blocks for integrated "wall to wall" neighbourhood planning. It was during this time that the concept of a hierarchical nodal settlement pattern was incorporated into the formal planning process of Stellenbosch and the principles of bioregional planning and critical regionalism were adopted on both a provincial and the Winelands district scales. The concept of critical regionalism generally implies to unique areas (for example the Provence region in France, the Cotswold region in England, Tuscany in Italy – and the Greater Stellenbosch etc.). Such areas are recognised for both their global cultural landscape and settlement, qualities reflected on the district, farm, town neighbourhood and building scales.

Accordingly, five tenets identified by Kelbaugh⁵, to give practical effect to the promotion of the essential qualities of historical regions were adopted for the Winelands in the WIDF. These are, *sense of place, history, nature, crafts and limits*. The following extracts from Lynch⁶ and Kelbaugh provide a synoptic introduction to the subject.

- **Sense of Place**

This is the degree to which a place can be clearly perceived and mentally differentiated and structured in time and space by its residents. Identity is the degree to which a person can recognise a place being distinctive from other places and having a character of its own – a convenient peg to hang personal memories, feelings and values on (Lynch – Good City Form: Chapter 8).

- **Sense of History**

History is a rich archive for planners and designers. Traditional architecture language can evolve much as the spoken language does. New places that rhymes with familiar imagery is as naturally pleasing to the eye as it is to the ear (Kelbaugh 1999: 78).

⁵ Kelbaugh Douglas 1999. Common Place: Towards Neighborhood and Regional Design. University of Washington Press.

⁶ Lynch, K., 1998: Good City Form MIT Press.

- **Sense of Nature**

Nature is a good model for design as it holds the key to vitality and sustainability-working together designers, developers and owners can fulfil an ecological role to protect and preserve ecosystems, natural cycle chains and the symbioses between organisms and their environment (Kelbaugh 1999: 75).

- **Sense of Craft**

The construction of buildings and structures have become lighter and even junkier over time and do not age well ... notwithstanding these realities craft need to be promoted (Kelbaugh 1999: 79)

- **Sense of Limits**

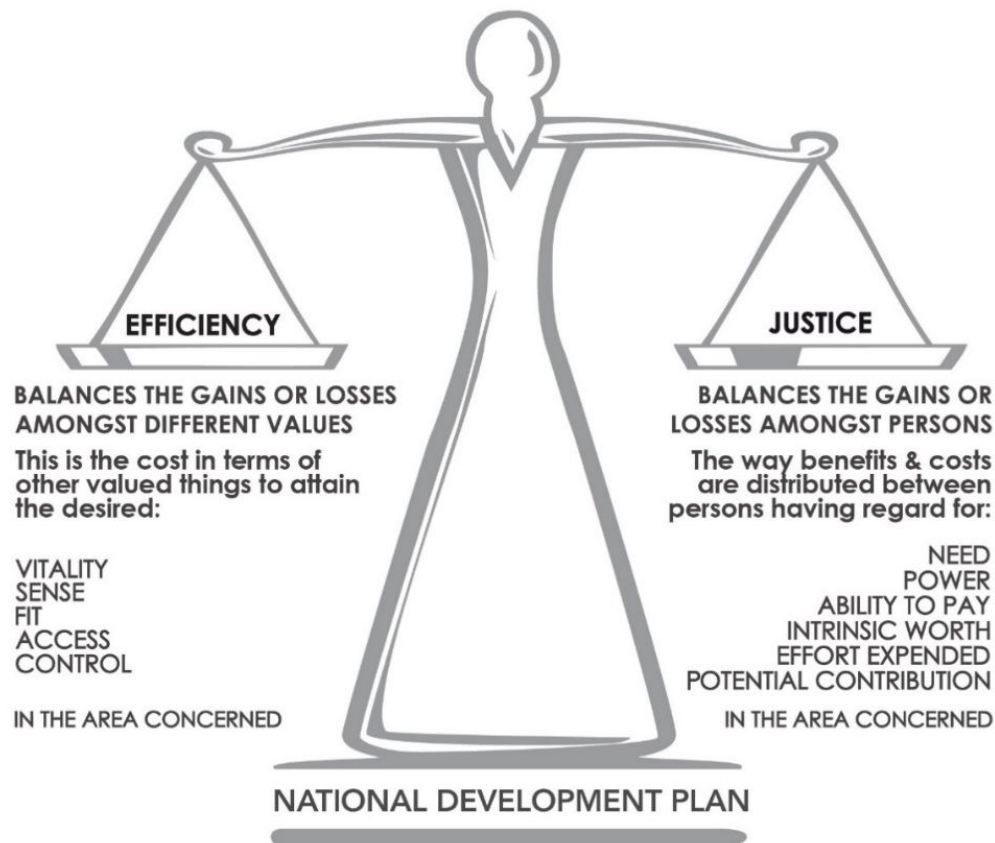
Sense of limits is a world view in which it is accepted that “we can’t have it all, in which there is tragedy as well as happiness, in which there are finite resources and a limited number of times we can get it rightThe classical point of view favours harmony and balance, rather than originality and freedom. Convention takes on as much or more importance as invention. Tradition is valued as much or more than innovation (Kelbaugh 1997: 89).

In the WIDF, the overarching question of how good settlements are to be achieved, in context of agreed to norms, principles and values (that should inform decision-making) was addressed with reference to the seminal work of Lynch: 1998. His normative model for good city form (that was developed by Lynch in 1981) was adopted in the preparation of the WIDF (constitutionally relevant to this day if considered in context of SPLUMA and LUPA). The starting point of Lynch’s theory is that good settlement form has to be determined by measuring its performance in terms of specific normative criteria. The criteria identified by him were, first of all vitality (the biological health of the system) followed by sense (the quality of place), fit (how the parts fit together), access (how do people get around) and control (how the settlement system is controlled, and who takes responsibility for it).

Lynch demonstrated that the values, **efficiency** and **justice** (the first two SPLUMA/LUPA principles) should always be appended to any list of good things. As a starting point, one should define these terms. Efficiency balances gains and losses amongst different values whilst, Justice balances the gains

and losses amongst persons. Efficiency is the cost in terms of other values things to attain the desired vitality, sense, fit, access and control in the area concerned. Justice is the way benefits and costs are distributed between persons.

The figure below illustrates the above normative model.



NORMATIVE DECISION-MAKING FOR GOOD CITY FORM

Figure 6: Norms and Urban Form (Source: Dennis Moss Partnership)

In the WIDF planners, designers and participants in the planning process were encouraged to, in planning for the future, consider these principles in the planning and design of new settlements and to have regard for these principles in allocating resources and measuring the performance of settlements.

It is to be noted that, promoting the sense of place qualities was second only to vitality in Lynch's model. In the WIDF much effort had gone into promoting the recognition of traditional and artistic fundamentals in settlement planning and design. In an SDF, the foundations should ideally be laid to recover this art. It is therefore of importance to enable planning by-laws to give effect to the

traditional place-making qualities of the Greater Stellenbosch in practice. In so doing, the active participation of the authorities, design professionals, property developers and the public to develop a culture that appreciates traditional place-making qualities in the built and landscapes of the Greater Stellenbosch will be rekindled.

These matters were extensively addressed in the WIDF, from both a philosophical and a strategical/practical perspective. The former was described and demonstrated with reference to the seminal work of Norberg Schulz *Genius Loci*⁷ and the *Concept of Dwellings*⁸ and the latter with reference to the work of Roger Trancik⁹ "Finding Lost Space". Schulz applied the phenomenological method of inquiry to describe reality as is perceived and understood by human consciousness, as opposed to relying on technical, scientific description or data only. Trancik demonstrates how to recover the qualities of traditional urban space that had been lost as a consequence of the implementation of the philosophies of the modern movement in architecture.

These concepts and theories were extensively discussed and demonstrated during the preparation of the WIDF to help enrich public debate and participation. The current IDP/SDF could benefit from the work that had been done twenty years ago.

Having considered urban form and quality, informed by normative decision-making, and having regard for past policies adopted by Stellenbosch Municipality relating to traditional place-making philosophies and principles (that formed the foundation of the traditional settlements of the Winelands), it would be necessary to consider current best practice approaches for the fast pace development that settlements in the Greater Stellenbosch are experiencing.

In this regard it is recommended that the recent work of Dovey¹⁰ be considered. He points out that his book was written primarily to demonstrate the application of particular ways of thinking rather than the exposition of theory. He regards theory as a toolkit – the means rather than the end.

He argues that ultimately theory must be judged by its usefulness and introduces the concept of the Urban DMA (that resonates with the biological DNA). This is an alliance of Density, Mix and Access, as is illustrated by Figure 7 below that demonstrates the synergy between the way's cities

⁷ Norberg-Schultz, C., 1984: *Genius Loci, Towards a Phenomenology of Architecture*: Rizzoli International Publications.

⁸ Norberg-Schultz, C., 1985: *The Concept of Dwelling*: Rizzoli International Publications.

⁹ Trancik, R., 1986: *Finding Lost Space: Theories of Urban Design*. John Wiley and Sons.

¹⁰ Dovey Kim 2016: *Urban Design Thinking* Bloomsbury

(settlements and towns) “concentrate people and buildings, the ways they mix differences together and the networks we use to get around the city”.

Dovey’s DMA should also be considered in context of the promotion of the Smart City philosophy, (that, in short, translates into the connected city) that already forms part of Stellenbosch Municipal Planning policy.

In this regard, Stellenbosch Municipality has taken steps to establish a TOD hub at the corner of Adam Tas and Merriman Road. Future sustainable development planning would be greatly enhanced if the principles of the ‘1km walkable city’ would be incorporated into the Stellenbosch SDF in all nodal settlements and adjoining neighbourhoods. This principle is illustrated by Figure 8 below and also serves to demonstrate the importance of recognising scale in the planning and design process, starting from the 10m (face-face) scale.

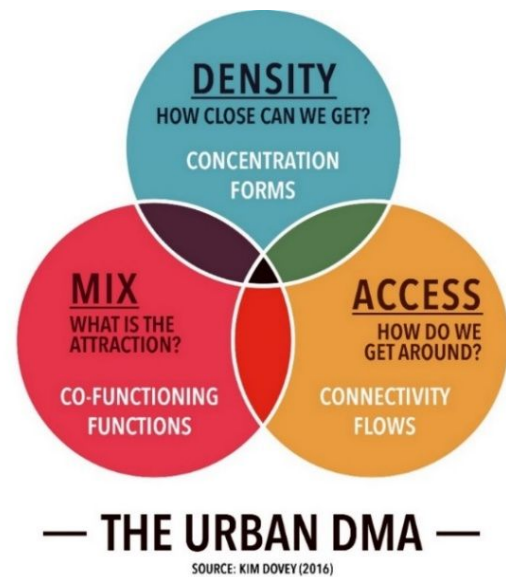


Figure 7: The Urban DMA

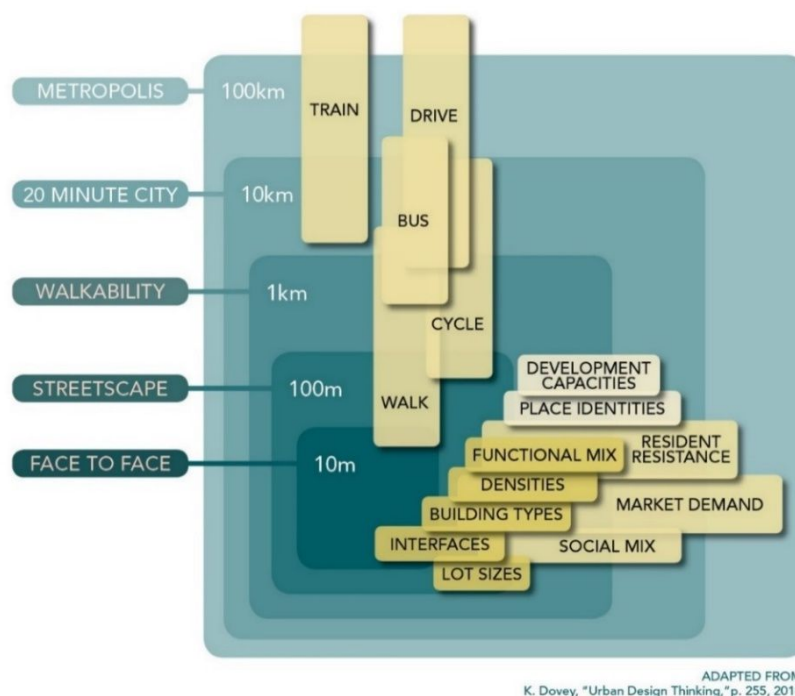


Figure 8: Multi-scale thinking linkages, modes of transport and land-use mix (Dovey. 2016: p 255)

Furthermore, it is an imperative to recognise that good urban areas cannot be achieved by spatial thinking only – these systems are multi-dimensional. In this regard, it is recommended that the substantive urban design dimensions, identified by Carmona *et al*¹¹, be consulted and considered in the participation process as substantive dimensions of urban design (Figure 9). This approach is critical if the requirement of NEMA that the “whole should be greater than the sum of its parts” is to be met.

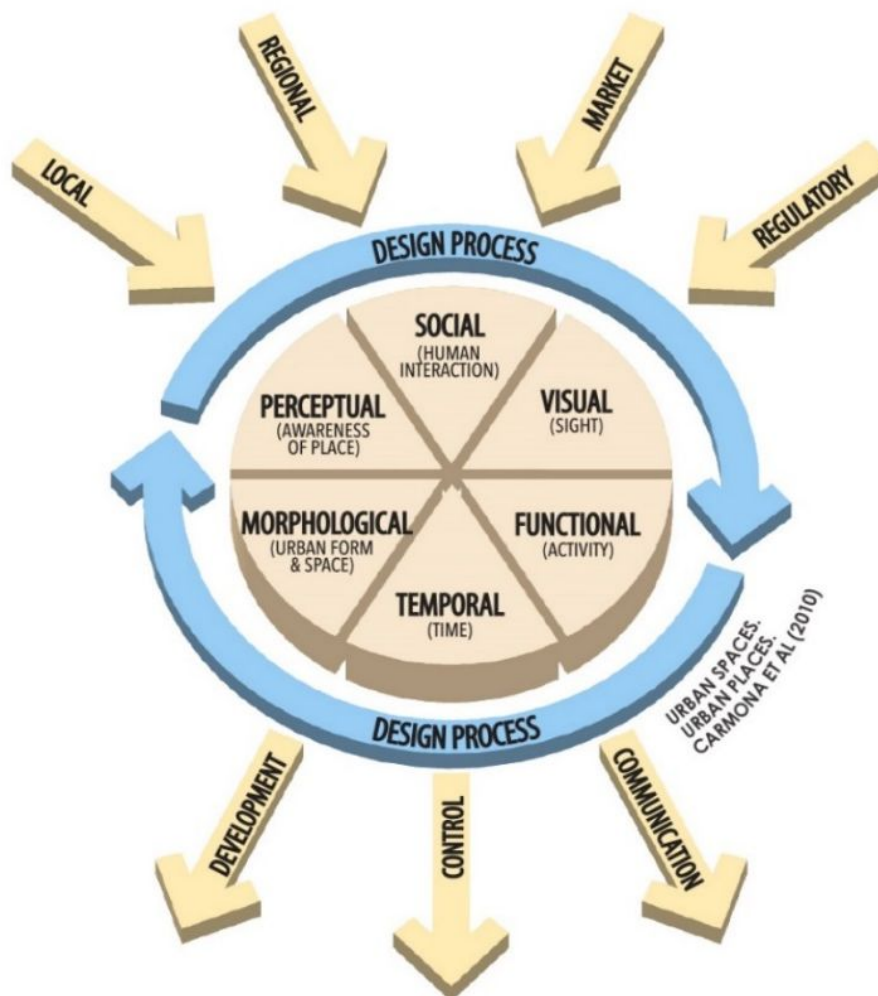


Figure 9: Six Dimensions of Urban Design

With regard to the IDP/SDF of Stellenbosch, value would be added if the review is considered in context of the matters raised in this document pertaining to the global sustainable development programmes that Stellenbosch is committed to and the critical role of qualitative place-making in

¹¹ Carmona *et al*, 2010. Public Places, Urban Spaces. The Dimensions of Urban Design.

context of the traditional socio-economic and cultural constructs of the built and cultural rural environment that has provided Stellenbosch with its uniqueness.

Of decisive significance is the preparation of the IDP/SDF plans and strategies to address the development challenges facing the Greater Stellenbosch in partnership with Stellenbosch University.

The traditional “town and gown” concept is one of the unique comparative and competitive advantages that the Greater Stellenbosch has internationally in which the university plays a principal role. Having regard for the wealth of knowledge, skills and competencies of the university and the speed at which innovation and technology would be advanced in the near future, the strengthening of the existing partnership between the municipality and the university would contribute decisively to the creation of a sustainable development trajectory for the Greater Stellenbosch that would be exemplary locally, nationally and internationally. In the latter regard it is to be noted that the Sustainability Institute of the University and a range of specialist departments, management entities and individuals have vast knowledge and expertise in matters relating to urban, socio-economic, cultural and environmental challenges that are directly of relevance to sustainable development. A significant number of university departments, management entities and individuals are already in partnership with the municipality and these relationships could be strengthened in context of the implementation of new legislation and the constitutional imperatives of the UN 2030 Agenda and the Paris Agreement. The IDP/SDF can strengthen these partnerships and serve as a bridge to NGO's, communities and the general public.

5. PROGRAMMES IN SUPPORT OF THE UN 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

5.1. MAN AND THE BIOSPHERE PROGRAMME (MaB)

The **Man and the Biosphere Programme (MaB)** was launched in 1971 by UNESCO, as a global programme of international scientific co-operation dealing with people-environment interactions over the entire realm of bioclimatic and geographic situations of the biosphere.

The MaB program is implemented through the establishment of Biosphere Reserves throughout the world which collectively form the World Network of Biosphere Reserves. At present there are 686 Biosphere Reserves in the World Network.

A Biosphere Reserve is defined as an **area of terrestrial and coastal/marine ecosystems, or a combination thereof, which is internationally recognised within the framework of UNESCO's MAB**

Programme. A primary purpose of biosphere reserves is that they serve as mechanisms for reconciling and integrating the conflicting interests and pressures that characterise land use planning. On the global scale, each biosphere reserve is intended to fulfil three complementary functions namely **Conservation, Development and Logistic Support**. The concept is based on a structure of three *interrelated zones* covering the entire planning area with specific conservation status and land use(s) assigned to each area.

- a) The **Core Area (or areas)** is a statutory protected site designated for conserving biodiversity, monitoring ecosystems, and non-disruptive, non-consumptive land-uses, such as outdoor recreation, bench-mark research, and environmental education.
- b) The **Buffer zone** usually surrounds or adjoins the core area. This area 'protects' the core area against consumptive human activity and is used for co-operative non-consumptive activities, including environmental education, eco-tourism, benchmark research, and specific sustainable agricultural activities.
- c) The **Transition Area**, or 'area of co-operation', accommodates a variety of non-consumptive and consumptive activities, such as agriculture, settlements and other disruptive land-uses. In this area communities, management agencies, scientists, NGOs, cultural groups, economic interest groups and other stakeholders work together to manage and develop the area's resources in a sustainable manner.

Public-private cooperation is managed by bespoke structures (usually a Section 21 non-profit companies in South Africa). The Cape Winelands Biosphere Reserve falls within the area of the Cape Winelands District Municipality. Having regard for the prominent role that biosphere reserves can play in promoting sustainable development in terms of Agenda 2030, it would be advisable to reconsider the organizational relationship between local municipalities, district municipalities and the provincial authorities in the Cape Winelands Biosphere to increase integration and efficiency. A critical consideration is to improve the alignment of biosphere reserve planning and the integration with the functions of IDP's/SDF's in accordance within the UN Agenda 2030 and the Paris Agreement and, to strengthen their development functions. At the 4th World Congress of Biosphere Reserves held in Lima, Peru during 2016, UNESCO's MaB World Network members formulated "A New Roadmap for the Man and the Biosphere (MAB) Programme and its World Network of Biosphere Reserves" comprising the **MAB Strategy (2015-2025)**, the **Lima Action Plan (2016-2025)** and the **Lima Declaration**. The support for the UN 2030 Agenda for Sustainable Development Goals was recognised

and supported as one of the core objectives of the “New Roadmap” as summarised in the Preamble (P.11) to the MaB Strategy ¹² which states that:

*As the MaB Programme has evolved, biosphere reserves have become its principal means of implementation. The biosphere reserve concept has proved its value beyond the protected areas that each biosphere reserve contains, and is increasingly embraced by scientists, planners, policy-makers, businesses and local communities to bring diverse knowledge, scientific investigations and experiences to link biodiversity conservation and socio-economic development for human well-being. To understand and address the key challenges facing our world – poverty, climate change, water and food security, loss of biological and cultural diversity, rapid urbanization and desertification – the MAB Programme, through its World Network of Biosphere Reserves (WNBR) and its regional and thematic networks, **will strategically address the Sustainable Development Goals (SDGs)** through sustainable development actions in biosphere reserves, carried out in partnership with all sectors of society, to ensure the wellbeing of people and their environment.*

The experience of the WNBR, MAB Networks and interdisciplinary approaches will be used to develop and test policies and practices that address issues affecting different ecosystems and ensure the delivery of the goods and services they provide.

The MAB Programme is an important means to mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their vital interlinkages, in order to achieve sustainable development in all its dimensions.

The importance of the MaB Programme and the World Network of Biosphere Reserves to support the UN SDG’s is illustrated in the report by the Swedish Environmental Protection Agency’s. *Swedish Biosphere Reserves as Arenas for Implementing the UN 2030 Agenda for Sustainable Development (2017)*. This should be read together with the three functions of Biosphere Reserves namely Conservation (i.e. the environment/biosphere which supports life on earth), Development (i.e. Society and Economy) and Logistic Support.

¹² UN MaB Strategy (2015-2025). 2016. UNESCO, Paris



Figure 10: The Biosphere as foundation of support for the SDG's (Stockholm Environmental Protection Agency ¹³)

5.2. CONSERVANCIES AS THE BUILDING BLOCKS OF BIOSPHERE RESERVES

A conservancy is established on the basis of a voluntary agreement between landowners in a specified area to promote the conservation of the environment in an integrated manner across their combined properties. In the Western Cape this is undertaken with the recognition and support of the provincial conservation and provincial and national agricultural departments.

On a local municipal scale, **Conservancies** are principal spatial building blocks of Biosphere Reserves as they represent clearly defined areas where local farm owners and communities work together to promote sustainable development through the implementation of conservation and socio-economic and development projects.

Within the Cape Winelands Biosphere Reserve there are a number of established conservancies. Three are located in Stellenbosch namely, Bottelary Hills Conservancy, Simonsberg Conservancy and the Klapmuts Conservancy (the latter two are managed as a single entity).

¹³ Swedish Biosphere Reserves as Arenas for Implementing the 2030 Agenda. 2017. Swedish Environmental Protection Agency. Stockholm, Sweden

In the Winelands Integrated Development Framework (WIDF): Spatial Plan of 2000, it was envisaged that a system of wall-to-wall conservancies could be established across the biosphere reserves that could give practical effect to the objectives of the MaB program in the Stellenbosch Municipal area.

Bottelary Hills Conservancy, that was established 20 years ago, has submitted a formal proposal for participation in the preparation of Stellenbosch SDF during 2017. In the latter proposal it was envisaged that a partnership strategy could be implemented to establish a conservation corridor between Cape Town's eastern boundary across the Bottelary Hills up to Simonsberg that would include re-establishing the natural Renosterveld conservation cover and to work in partnership with the municipality on sustainable development projects.

It is envisaged that the Bottelary/Simonsberg corridor could serve as a model to demonstrate an exemplary partnership cooperation that would demonstrate how long-term sustainability could be promoted on the municipal neighbourhood scale and beyond, within context of the MaB principles and the IDP/SDF.

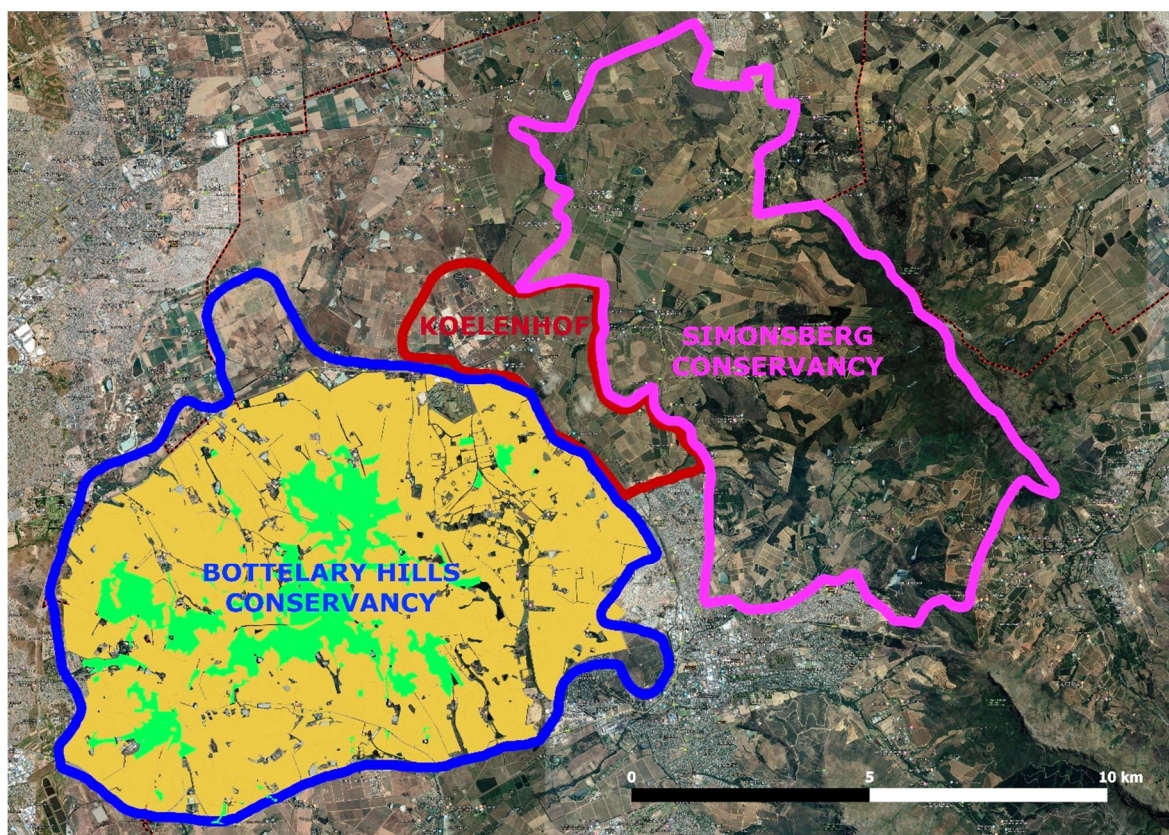


Figure 11: The approximate geographical extent of the three areas that could be included in a planning precinct provisionally referred to as the Bottelary–Simonsberg Corridor.

A critical aspect that has to be addressed in an IDP/SDF, is the challenge to enable agricultural landowners to employ their environmental capital synergistically, together with monetary, infrastructural, social and human capital, in order for them to unlock an optimal sustainable development process. The maintenance of the unique agricultural landscapes of the Greater Stellenbosch is much appreciated by all. Their maintenance and enhancement are however dependent on the ability of farmers to use their land in a manner that is economically viable. If farmers are economically compelled to employ alternative agricultural practices, such as agricultural netting and/or plastic tunnels, the essence of the historical agricultural landscapes would be threatened and could be lost. This tendency has already emerged and if this is up-scaled, it would destroy the very essence of what makes the Greater Stellenbosch unique (refer Figures 12 and 13 below). Incentives are therefore required to help farmers to maintain the cultural landscape of the Greater Stellenbosch in a way that will be sustainable. This problem has occurred in many historic/rural agricultural landscapes, such as in Italy, France, Portugal, Spain, etc. and elsewhere¹⁴.

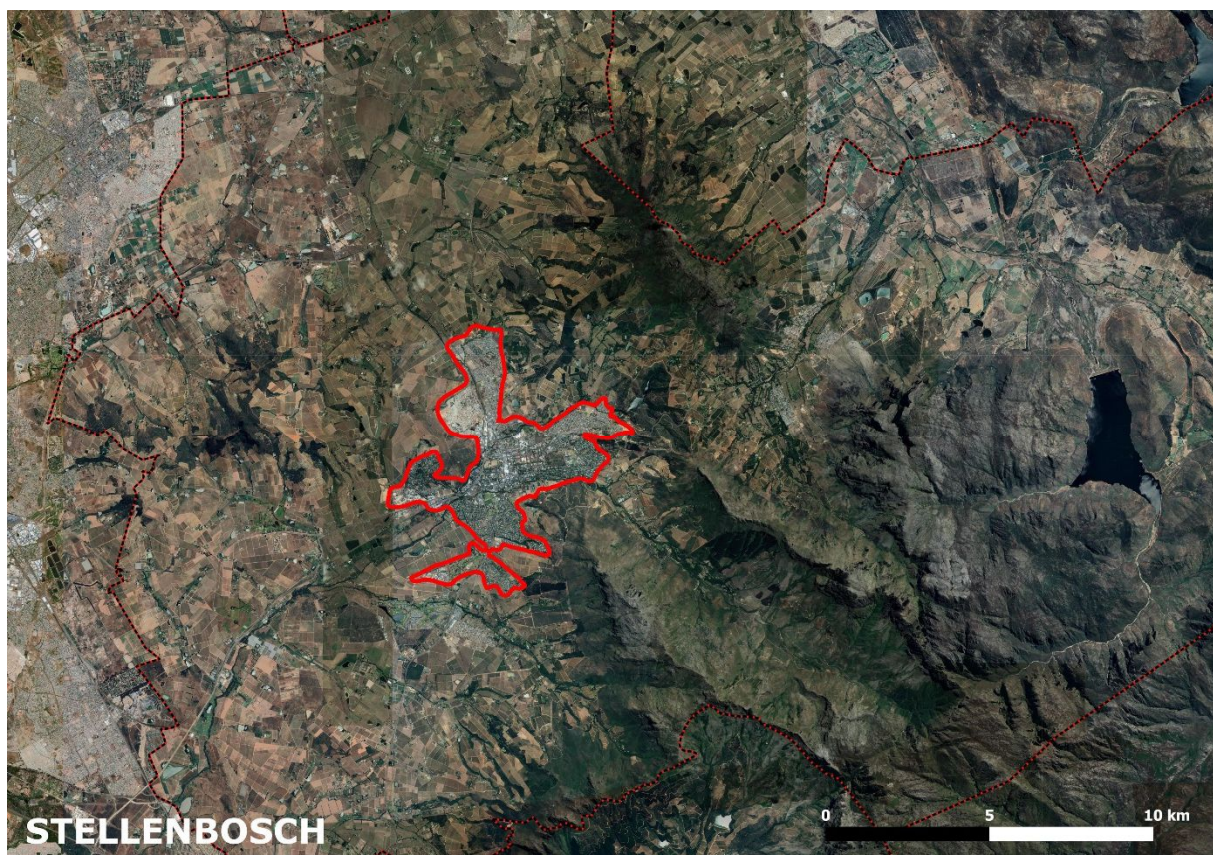


Figure 12: The cultural landscape of the Greater Stellenbosch

¹⁴ Landscape and Urban Planning. Paul Gobster: International Journal of Landscape Ecology Planning and Design.



Figure 13: The plastic agricultural landscape of El Ejido in Portugal showing the outline of Stellenbosch to demonstrate scale

5.3. UNESCO PROGRAMMES ON CULTURE AND THE UN 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

UNESCO is of the view that no development is sustainable without considering culture. It therefore regards the relevance of culture to the 2030 Agenda as paramount. In the introduction to a new 2018 UNESCO policy document “**Culture for the 2030 Agenda**” it is stated that “*The 2030 Agenda has opened up new avenues to integrate culture into policies for social and economic inclusion and environmental sustainability with innovation solutions that are state owned*”! This means harnessing the



power of culture to envisage and shape a more inclusive, just and equitable world. Culture as a resource and a transversal tool, is crucial to achieving this transformative vision”.

UNESCO defines culture as **“that complex whole which includes knowledge, beliefs, art, morals, laws, customs and any other capabilities and habits acquired by a person within a larger dominant culture. It states that, culture is who we are and what shapes our identity. No development can be sustainable without including culture”**. Accordingly, UNESCO has aligned its work in culture to better address sustainable development challenges and opportunities and has enabled culture-driven initiatives.

In the UNESCO’s “Culture for the 2030 Agenda” publication, UNESCO provides an overview of the initiatives it has taken to promote culture’s contribution to sustainable urban development, specifically throughout the New Urban Agenda and the UN 2030 Agenda’s SDG 11 (Sustainable Cities and Communities). UNESCO’s view is that culture, including tangible and intangible heritage and the cultural and creative activities, is a sector in its own right, while also contributing transversally to sustainable development across the three pillars of sustainable development – social, economic and environmental. It views culture as both a means and an end to sustainable development. UNESCO is the only UN Agency with a mandate in the field of culture and proposes ways to recognise, harness and enhance the role of culture in the implementation of the UN 2030 Agenda for Sustainable Development. UNESCO furthermore argues that, as an enabler of sustainable development, culture ensures the effectiveness of action in other sectors and policy areas. It goes on to state that culture-engaged actions, that prioritize participatory processes and local solutions, foster community ownership (and pride). This contributes indirectly to broader aspirations for peace and social inclusion, fundamental freedoms and cultural diversity.

As mentioned, the MaB Programme of UNESCO is a portal to a range of associated international programmes, policies and projects relating to culture, sustainable development and sustainability in partnership with other UN agencies such as the United Nations Development Programme (UNDP).

In context of the above, the mutual culture that e’Bosch promotes should be viewed as the kind of culture (way of life) that promotes environmental, social and economic sustainability (three pillars of sustainable development). In a policy statement adopted by the 3rd World Congress of UCLG (United Cities and Local Government) in 2010, Culture was recognised as the fourth pillar of sustainable development. This demonstrates an international recognition for the approach adopted by e’Bosch to its work.

In addition to the matters addressed above, significant comparative and competitive sectoral economic advantages of the Greater Stellenbosch (that were, advanced by Stellenbosch Municipality, the University and the private sector over the past decades) relate to the creative arts, advancement of cultural goods (wine, culinary, etc.), protection and enhancement of historic buildings and landscapes, tourism programmes, etc. These types of cultural activities and goods are those that UNESCO describe as belonging to the “Creative Economy”. Urban planning and design that forms the foundation of an SDF are also creative activities and belong to the creative economy. In the introduction to their creative Economy Report¹⁵, it is stated that the creative economy has become a powerful transformative force in the world – it is vast and is waiting to be unlocked. It is further stated that **“There is an urgent need to find new development pathways that encourage creativity and innovation in the pursuit of inclusive, equitable and sustainable growth and development”**... *“next frontier of knowledge generation rests on understanding interactions, specificities and policies at local levels, and how the creative economy might be practically promoted in communities, cities and regions across the developing world”*.

Under Chapter 1.1.4 of the report, it is stated that the term creativity and culture goods and services tend to get blurred. It is recognised in the report that there is little agreement as to its nature. It is however apparent that cultural and creative industries not only drive growth through the creation of value, but have also become key elements of the innovation system of the entire economy. It is therefore suggested that the creative economy should be considered as a “complex system that derives its economic value from the facilitation of economic evolution – a system that manufactures attention, complexity, identity and adaption through the primary resource of creativity” (Creativity Economy Report: 2013).

Accordingly, it is argued that all aspects of economic, social or political creativity are generated uniquely – or even principally by cultural and creative industry processes. For this reason, the term Creative Economy is considered in the report to include cultural creativity and/or innovation. Of importance is that there is a “need to uncover the increasingly symbiotic relationships between culture, economy and place. Spatially the creative economy generally constitutes clusters of activity that achieve higher levels of innovation and competitiveness. Networks of clusters foster a rise in labour markets, marked by particular traditions, sensibilities and norms that constitute the local atmosphere, which becomes a source of comparative advantages. Networking and labour market

¹⁵ UNESCO/UNDP 2013: Creative Economy Report. Widening Local Development Pathways

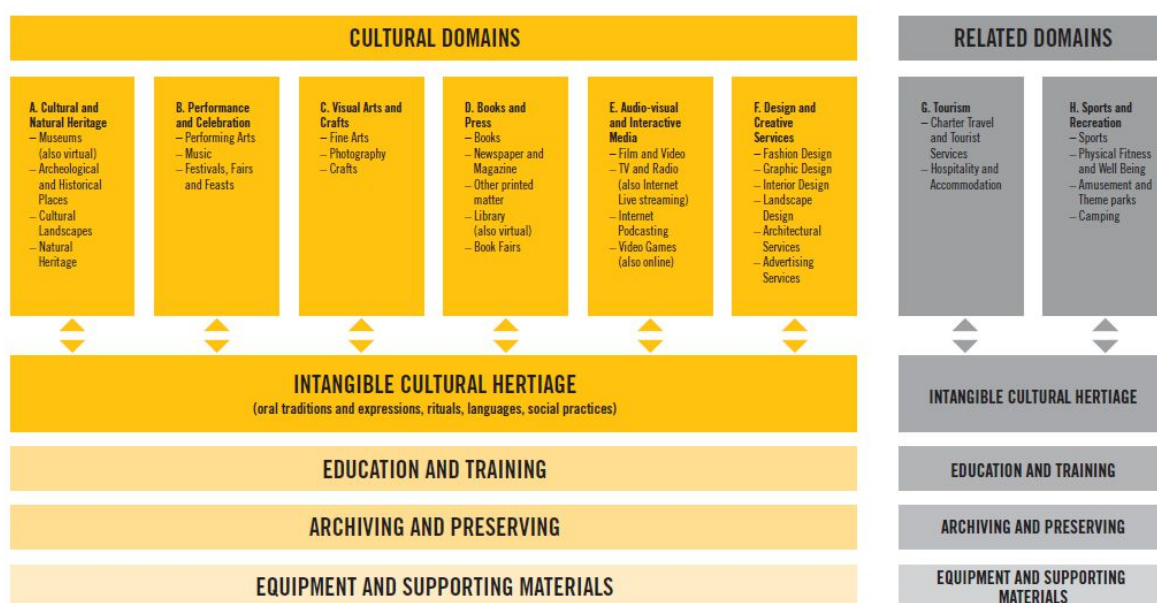
processes coalesce to generate strong creative fields. These processes in turn generate agglomeration economies that are important for the creative economy”. It is furthermore stated that, “clustering is seen as a means of equipping industries or regions to exploit their natural advantages in ways that enable them to achieve higher levels of innovation and competitiveness. As the notion was originally described for the industry as a whole, a “cluster” is a local concentration of firms producing a particular product or service. The proximity of these firms results in vigorous competition, spurs innovation, increases opportunities to share information, augments aggregate demand for particular inputs, and reduces transaction costs” (Creative Economy Report, 2013:16).

Stellenbosch Municipality has promoted the town as an innovative centre in the past and, as far is known, this is still considered a priority. In the new IDP/SDF, this initiative could be reassessed by considering it from a cultural perspective and spatially (amongst other considerations) in terms of the principle of clustering in the identified urban nodes as well as in agricultural areas and in nature areas.

Figure 14 illustrates the Cultural Domains identified in the UNESCO/UNDP report as well as RELATED DOMAINS and their links with the Intangible Cultural Heritage.

The Cultural Economy

Based on UNESCO’S Framework for Cultural Statistics



Source: 2009 UNESCO Framework for Cultural Statistics, p. 24.

Figure 14: UNESCO Framework for Cultural Statistics Domains

Promoting a culture of sustainability is aligned with the principal objectives of sustainable development, as is contemplated in the Constitution of South Africa. Such a view resonates with South Africa's international commitments to the UN 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change and other related UN programmes such as UNESCO's MaB Programme. In practice, such a culture would be most efficiently achieved by promoting the implementation of the 17 UN 2030 SDG's in the Cape Winelands Biosphere Reserve in accordance with UNESCO's MaB Programme in a spirit of partnership as is contemplated in SDG 17 of the UN Agenda 2030.

The IDP/SDF is a principal conduit through which the above principles and objectives could be made explicit on the municipal scale. The IDP/SDF review for the next five years for Stellenbosch should ideally be informed by the values, principles and management strategies that Stellenbosch Municipality has endorsed in 2007 in support of the listing of the Cape Winelands Biosphere Reserve as part of the World Network of Biosphere Reserves and its 2009 SDP. It would be of value if the provision would be made for a bespoke medium-term (30 years) plan for the Greater Stellenbosch.

In the latter regard, it would also be of value if the Stellenbosch component of the Biosphere Reserve Framework Plan of 2009 would be updated, refined and aligned with Stellenbosch Municipality's IDP/SDF, its Heritage Inventory and Management Plan (May 2018), the Stellenbosch Environmental Management Plan and the municipal plans relating to the establishment of new nature reserves, such as the proposed Paradyskloof Nature Reserve. From an e'Bosch perspective, the UNESCO MaB Programme could also serve as a framework for planning, funding and implementation of e'Bosch projects.

6. THE UNKNOWN FUTURE, FACTS AND TRENDS

The most fundamental purpose of an IDP/SDF is to promote and give practical effect to sustainable development in the Greater Stellenbosch in context of all the scales illustrated by Figure 4 above. Strategies and plans are to be prepared demonstrating how ecological sustainability would be achieved, how the desired future spatial development patterns, urban form, structure, qualities of settlements would be addressed and how implementation would take place. An IDP/SDF, as mentioned, addresses short-term future (5 years) within context of the medium-term (30 years) with due regard for long-term trends. To understand global and local trends, one has to be mindful of

historic trends. In this regard, it is to be taken into consideration that the globe is currently experiencing the 6th wave of innovation as is illustrated by Figure 15 below.

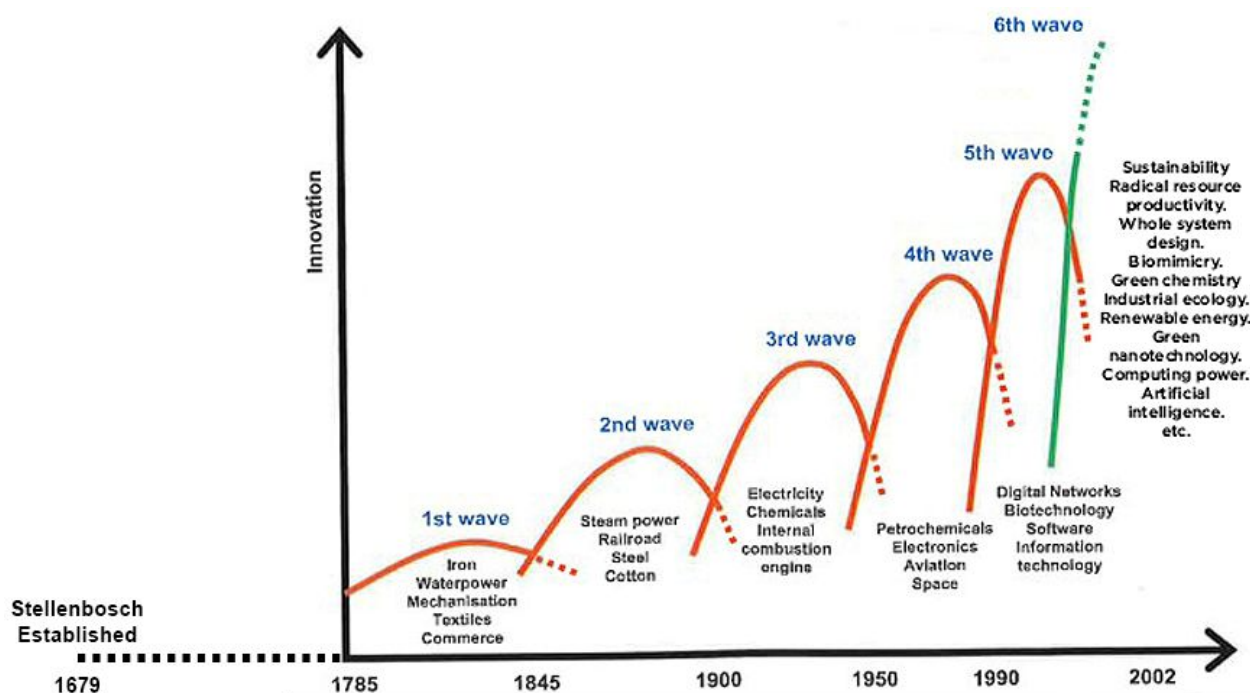


Figure 15: The six waves of Innovation ¹⁶

More recently, public reference is made to the current period as the 4th Industrial Revolution. The first being *mechanization, water power and steam power*, the second *mass production assembly line and electricity*, the third revolution was *computer and automation power* and the fourth *cyber and physical systems*.

In the promotion of the MaB Programme, in determining future IDP/SDF spatial requirements and preparing IDP development strategies and budgets for the future, a range of assumptions and estimations must be made. Some of these have medium and long-term implications. Regard must therefore be had for current realities and future trends. Care needs to be taken that project planning and development would not compromise the integrity of the natural and cultural landscapes of Stellenbosch in the long-term. Infrastructural development planning based on short-term forecasts and knowledge may be obsolete in the medium-term (30 years) and in the long-term due to changing technology. Transportation and infrastructure planning are typical examples where new technologies could fundamentally change the manner in which these services would be provided in the medium

¹⁶ Hargroves, K., and Smith, M.H. (eds), (2005): *The Natural Advantage of Nations: Business Opportunities, Innovation and Governance in the 21st Century*. Earthscan, London.

to long-term future. Technology will, within the foreseeable future, impact hugely on travel demand and modes of travel. Self-drive vehicles, smaller motorcars (printed vehicles etc.) and diminishing personal vehicular ownership would fundamentally change logistical supply and demand patterns in all fields.

Technologies are currently being developed (nanotechnology for example) that would drastically increase the decentralization of infrastructure such as sewage, water, purification and electricity systems. Sewage treatment and potable water could, in the medium-term, be centralised on the household scale (in a small water purifier the size of a bar fridge). Commercial systems are already in place to promote electrical infrastructure on the individual informal housing scale on a cooperative basis. 3D printing of consumer products on the local scale, self-drive vehicles and a major reduction in car ownership and an increase in new modes of transport would become commonplace in the medium-term with huge reductions of current type of logistical transportation systems.

These developments would fundamentally change infrastructural provision and the nature of the construction industry and the transportation systems with profound socio-economic changes as a consequence.

7. RISK AVERSE AND CAUTIOUS APPROACH

When considering an application for development where the rezoning of land is required and/or where special consent should be given, a municipal tribunal is, in terms of SPLUMA/LUPA, obliged to ensure that an application is consistent with an SDF. A development application, that requires authorization, may generally not be approved unless it is consistent with the SDF of a municipality.

Having regard for this, a municipality needs to take care that its SDF proposals would stand the test of the standards and policies of integrated environmental management principles, as contemplated in NEMA. In this regard it would be of value, when considering or evaluating SDF proposals during an IDP/SDF review process, to consider the consistency of such proposals with the Department of Environmental Affairs Guidelines for Need and Desirability as contemplated in NEMA. Of particular importance is that NEMA requires that a risk averse and cautious approach should apply in the assessment of need and desirability (that is also a fundamental principle to adhere to in the IDP/SDF review process). The matters raised under par.6 above should therefore be considered. For example,

investments into major expansion of infrastructure such as new roads, should be considered in context of medium-term development scenarios.

For ease of reference this approach, advocated in the NEMA Guideline document is included below.

<i>A risk averse and cautious approach</i>
<p>A risk averse and cautious approach (the precautionary principle) in the context of the protection of environmental rights is essentially about the assessment and management of risk.</p> <p>South Africa has given effect to the precautionary principle in the NEMA. The NEMA in section 2 contains a principle that development must be socially, environmentally and economically sustainable, and requires the consideration of all relevant factors including that:</p> <p><i>“a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions”</i></p> <p>Section 2(4)(a)(vii) of NEMA applies to any organ of state that takes a decision in terms of a statutory provision connected to the protection of the environment. It must apply a risk-averse and cautious approach that takes into account the limits of current knowledge about the consequences of decisions and actions. It appears that international jurisprudence is increasingly being persuaded to accept the precautionary principle as a means of dealing with scientific uncertainty in environmental disputes.</p> <p>The application of the precautionary principle and the associated need to take precautionary measures are triggered by the satisfaction of two conditions precedent or thresholds:</p> <ul style="list-style-type: none"> • a threat of serious or irreversible environmental damage; and • scientific uncertainty as to the nature and scope of the threat of environmental damage. <p>If either of the conditions is not met, then there will be no basis upon which the precautionary principle can operate.</p>

8. THE 2009 BIOSPHERE RESERVE FRAMEWORK PLAN

In 2009 a Framework Plan was prepared for the Cape Winelands Biosphere Reserve as required in the MaB statutes. The status of the Framework Plan was that of a Spatial Development Plan (similar to an SDF) as contemplated in the policy and legislation at the time. This SDF was to be read together with the application for nomination of the Cape Winelands Biosphere Reserve of May 2007 and the provincial manual for the Application of Bioregional Planning in the Western Cape Province (2003). The 2009 Biosphere Reserve Framework Plan should ideally serve as an informant of the current IDP/SDF review. As a general guideline its principal objectives are provided below.

The purpose and standards of this SDP was to:

- Indicate, in a detailed manner, the spatial implications of the Biosphere Reserve.
- Provide a detailed land use plan that will provide a basis for giving effect to the key objectives of the Biosphere Reserve, namely ‘development’, ‘conservation’ and ‘logistical support’.

- c) Serve as a spatial and strategic plan that would support Local Economic Development (LED) in the Biosphere Reserve.
- d) Lay down strategies, proposals and guidelines for the future spatial development in the Biosphere Reserve, with specific reference to:
 - (i) Development objectives.
 - (ii) Proposals for land reform.
 - (iii) Urban renewal.
 - (iv) Social integration.
 - (v) Environmental planning and management.
 - (vi) Urban design.
- e) Provide a framework for:
 - (i) The establishment of a dedicated and autonomous management entity for the Biosphere Reserve
 - (ii) The preparation of a dedicated management plan for the Biosphere Reserve and in terms of the Seville Strategy on Biosphere Reserves and the Madrid Action Plan and the latest MaB Strategy 2015-2025 and the Lima Action Plan 2016-2025 and the Lima Declaration.
- f) The SDP is to facilitate international recognition and support for the Biosphere Reserve as a macro terrestrial ecosystem that is of global importance.
- g) The SDP is to facilitate coherent planning and land-use management with specific reference to the following:
 - (i) Alignment of the existing land-use planning guidelines with the biosphere zoning principles and to promote the adoption of these throughout the Biosphere Reserve.
 - (ii) Facilitate cross-boundary co-operation and co-ordination between the municipalities that form part of the Biosphere Reserve with regard to issues that are of mutual interest (refer to *inter alia* land-use management, biodiversity conservation, and resource utilization).
 - (iii) Provide a coherent framework for the sustainable use of natural resources (including productive agricultural soils, water, biodiversity products, etc.) in order

to enhance the key economic sectors of the district, in particular, agriculture, development and tourism, as such, promoting the comparative and the competitive economic advantages of the area.

- (iv) Provide a basis for the eradication of poverty and inequality as the core obstacle to a stable and prosperous future in the various areas.

9. THE IMPERATIVE FOR INTEGRATED PLANNING

The Constitution of South Africa requires an integrated multi-scalar normative decision-making process to guide sustainable development towards long-term sustainability. An important informant for sound decision-making in the IDP/SDF review process lies in the commitments and agreements upon which the Cape Winelands Biosphere Reserve had been founded.

In the 1995 UNESCO Seville Strategy on Biosphere Reserves it is stated that biosphere reserves can *“become theatres for reconciling people and nature, they can bring knowledge of the past to the needs of the future, they can demonstrate how to overcome the problems of the sectoral nature of our institutions”*. This is the company that the Greater Stellenbosch keeps by having endorsed the listing of the Cape Winelands Biosphere Reserves and by being a member of 686 strong World Network of Biosphere Reserves.

The Constitution and the relevant statutory frameworks require decisions to be informed by norms, values and principles and not by rules and/or regulations that had not been informed by norms or that are inconsistent with the country's Constitution. Therefore, when considering the desirability of official planning proposals or the position of e'Bosch pertaining to socio-economic, development in context of the promotion of a mutual culture in Stellenbosch, regard should ideally be had for the matters raised above.

The principles that should inform decision-making pertaining to spatial planning and management are described in SPLUMA/LUPA. These are *spatial justice, spatial efficiency, sustainability, resilience* and *good administration*. It is important for e'Bosch to recognise that Stellenbosch Municipal IDP/SDF decision-making is integrated and that the rationale of its proposals (in context of the legislative and policy framework) should be motivated with due regard for context on all geographical scales. A local authority IDP/SDF should be consistent with all other larger SDF's on the district, provincial and national scales. An SDF provides for bespoke sectoral local SDF's to be prepared for

specific local areas within a municipality (for the e'Bosch 10 dorpsies for example) – such local SDF's should also be consistent with the Municipal SDF. Figure 4 above demonstrates the principle. Global context, facts and trends provide the overarching context whilst legislation and policy (including best practice) serve as principal informants.

10. CONCLUSION

The purpose of this document was to provide an overarching perspective on the potential participation of e'Bosch and its members relating to its core objective to promote a mutual culture for the people of Stellenbosch alongside other cultural traditions that can be handed down to future generations. Accordingly, the main focus of the report was on the Greater Stellenbosch in context of planning integration, from the local municipality scale to the international scale (Scales 1-5 of Figure 4). It is an IDP/SDF requirement that the values, principles, objectives and strategies, that are addressed above, should also apply to Scales 5-10.

The review of the Stellenbosch IDP/SDF, that is undertaken with due regard for a multi-scalar approach in context of the international commitments of Stellenbosch to integrate local planning with global commitments, would enhance the sustainable development value chain greatly.

Of particular significance is the preparation of a bespoke medium-term SDF (30 years) for the Greater Stellenbosch as the latter would help develop a greater understanding of the context within which the five-year IDP/SDF cycles should be considered.

Having regard for the 2012 Declaration of Intent, it follows that such a plan should ideally be prepared by Stellenbosch Municipality in collaboration with Stellenbosch University in a spirit of partnership with civil society.



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