

SADC INDUSTRIALIZATION STRATEGY AND ROADMAP

2015 - 2063

Approved by Summit in Harare on 29 April 2015





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ACRONYMS

AGOA Africa Growth and Opportunity Act

AIDA The Plan of Action for Accelerated Industrial Development

AMV African Mining Vision

AU African Union

AUC African Union Commission

BIAT Boosting Intra-African Trade Initiative

CCBG Committee of Central Bank Governors

CFTA Continental Free Trade Area

COMESA Common Market for Eastern and Southern Africa

EAC East African Community

ECCAS Economic Community of Central African States

EU European Union

EPA Economic Partnership Agreements

FDI Foreign Direct Investment

FTA Free Trade Area

GVC Global Value Chains

GDP Gross Domestic Product

ICT Information and Communication Technologies

IDPF SADC Industrial Development Policy Framework

IMF International Monetary Fund

IOC Indian Ocean Commission

IUMP SADC Industrial Upgrading and Modernization Programme

LDCs Least Developed Countries

MVA Manufacturing Value Added

OECD Organization for Economic Corporation and Development

PIDA Programme for Infrastructure Development

PPP Public-Private Partnership

RISDP SADC Regional Indicative Strategic Development Plan

R&D Research and Development

RVC Regional Value Chains

SADC Southern African Development Community

SACU Southern African Customs Union

SEZ Special Economic Zones

SMEs Small and Medium Enterprises

SQAM Standardization, Quality Assurance, Accreditation and Metrology

STEM Science, Technology, Engineering and Mathematics

SWOT Strengths, Weaknesses, Opportunity and Threats Analysis

TFP Total Factor Productivity

TFTA Tripartite Free Trade Area

TIVA Trade in Value Added

TRIPS Agreement on Trade Related Aspects of Intellectual Property Rights

UNCTAD United Nations Conference on Trade and Development

UNECA United Nations Economic Commission for Africa

UNIDO United Nations Industrial Development Organization

VAX Ratio Ratio of Value-Added Exports to total Exports

WTO World Trade Organization



FOREWORD FROM THE SADC CHAIRPERSON

In August 2014, SADC Heads of State and Government considered and endorsed the Summit Theme: "SADC Strategy for Economic Transformation: Leveraging the Region's Diverse Resources for Sustainable Economic and Social Development through Beneficiation and Value Addition". The Theme reflects the urgent need for the region to leverage its abundant and diverse resources, especially in agriculture and mining, to accelerate industrialization through beneficiation and value addition. To operationalize the Theme in the SADC regional integration agenda, Summit resolved to develop a SADC Industrialization Strategy and Roadmap.

I am pleased to present the SADC Industrialization Strategy and Roadmap, 2015-2063, which was approved by the Extra-Ordinary Summit in Harare, Zimbabwe, in April 2015. This is a historic achievement we should build on and use to transform our economies, to enhance economic growth, and create empowerment.

Despite persistent efforts to boost trade within the region through the SADC Free Trade Area, the value of intra-SADC trade has remained very low, at only 17% of total SADC trade. Exports from the region are dominated by unprocessed or minimally processed products mainly from the agricultural and mineral sectors, thus providing very low value returns. Such low level of intra-regional trade clearly shows that the great emphasis placed on tariff elimination, has not brought about the intended socio-economic development, nor the enhancement of quality of life and the well-being of our people. To address this challenge, we have agreed to act collectively, as a Region, to implement effective strategies that boost the productive capacity of our industries, develop infrastructure that leverages industrialization, and promotes technological advancement.

While SADC is endowed with abundant and diverse natural resources, our productive sectors do not practice value addition. In agriculture, SADC countries continue to export unprocessed agricultural produce, earning approximately 10% of the potential value of the products. The Industrialization Strategy aims at reversing this trend, in order to achieve self-sustaining development for our countries. This can be achieved through value addition to our products which in turn would increase returns from the export of our natural resources. In this context, we need to forge a strong partnership between Governments and the private sector.

Since one of the major challenges that has retarded the implementation of existing programmes on industrialization is inadequate funding, it is important for SADC region to consider innovative ways of

financing industrialization. This includes urgently formalising and operationalizing the Regional Development Fund, promoting public-private-partnerships, and ensuring that the private sector plays a pivotal role in the implementation of the Strategy. Our engagement with International Cooperating Partners should be guided by our Strategy and Roadmap 2015-2063, so as to complement SADC initiatives on industrialization.

I would like to commend all who contributed to the development of the Industrialization Strategy and Roadmap including SADC Member States, the Secretariat and International Cooperating Partners.

R.G. Mugabe

President of the Republic of Zimbabwe and SADC Chairperson



FROM THE EXECUTIVE SECRETARY

The SADC Industrialization Strategy and Roadmap 2015 - 2063 is the first of its kind. It has a long term perspective, and is aligned to national, regional, continental and international dimensions. The Strategy recognizes that for trade liberalization to contribute to sustainable and equitable development, and thus to poverty reduction, it must be complimented by the requisite capacities to produce, and to trade effectively and efficiently.

The primary orientation of the Strategy is the importance of technological and economic transformation of the SADC region through industrialization, modernization, skills development, science and technology, financial strengthening and deeper regional integration. The Strategy is anchored on three pillars namely; industrialization as champion of economic and technological transformation; competitiveness as an active process to move from comparative advantage to competitive advantage; and regional integration and geography as the context for industrial development and economic prosperity.

The Strategy's long term vision is aligned to the African Union Agenda 2063, covering the period 2015-2063. During this period, SADC economies seek to overcome their development constraints, and progressively move from factor-driven; to investment-driven, then to efficiency-driven; and ultimately to the high growth trajectory driven by knowledge, innovation and business sophistication. It is envisioned that by 2063, the SADC region will be fully transformed and will be an important player in the continental and global landscape, premised on the three growth phases:

- (a) Phase I: covers 2015 to 2020. This period constitutes a period of active frontloading of the Industrial Development and Market Integration and related infrastructure and services support to industrialization, with interventions to strengthen integration and competitiveness. During this phase, SADC countries should target per capita income growth of about 6 percent annually to achieve the lower income band of the factor-driven stage of US\$ 2000.
- (b) Phase II: covers the period 2021 to 2050, will focus on diversification and enhancement of productivity and competitiveness. During this period, SADC aims to achieve the targeted GDP per capita of US\$ 9000 by 2050 and a per capita growth rate of 8 per cent annually from 2020 onwards.
- (c) Phase III: covers 2051 2063, during which SADC economies would move into the innovation-driven stage, characterized by advanced technologies and increased business sophistication. To achieve that status, GDP per capita would need to rise from US\$ 9000 in 2050 to US\$ 17000 by 2063,

with an annual income growth of about 5 per cent.

On behalf of the SADC Secretariat, I wish to express our gratitude to SADC Heads of State and Government, under the Chairmanship of H.E. Robert Gabriel Mugabe, for their vision and leadership, and commend and thank all stakeholders who contributed to this noble course.

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Dr. Stergomena L.Tax **EXECUTIVE SECRETARY**

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First and foremost, our special gratitude goes to the SADC Heads of State and Government, under the chairmanship of His Excellency, Robert Gabriel Mugabe, President of the Republic of Zimbabwe, for their vision and leadership in the formulation of the Strategy. We also highly appreciate the support provided by Member States throughout the process of developing the Strategy.

Recognition also goes to Professor Samuel Mwita Wangwe, the Chief Executive Officer, Research on Poverty Alleviation (REPOA) Tanzania, and Dr. Angelo Mondlane, Director, Policy Planning and Resource Mobilization for their critical role in developing the concept paper that stimulated decisive engagement on the development of the SADC Industrialization Strategy during the 34th Victoria Falls August 2014 Summit.

The development of the SADC Industrialization Strategy and Roadmap 2015-2063 was an inclusive process involving SADC Member States, Strategic Partners, notably, the United Nations Economic Commission for Africa (UNECA), World Bank, United Nations Industrial Development Organization (UNIDO) and GIZ; the private sector and non-state actors. Fifteen national reports on industrial policies, strategies and programmes, as well as priorities of SADC Member States informed the Industrialization Strategy and Roadmap. Special recognition goes to UNECA, under the leadership of Dr. Carlos Lopes, Executive Secretary, and United Nations Economic Commission for Africa, supported by Prof. Said Adejumobi, Director, Sub-Regional Office for Southern Africa. The development of this Strategy and Roadmap would not have been possible without strategic financial support from UNECA.

Appreciation should also go to SADC staff for their dedication and effective coordination which enabled the preparation of the Strategy in record time. Membership of the core team of the Secretariat included Dr. Stergomena L.Tax, the Executive Secretary of SADC who provided outstanding oversight, supported by Dr. Thembinkosi Mhlongo, Deputy Executive Secretary - Regional Integration, and Ms Boitumelo Sendy Gofhamodimo, Director for Trade, Industry, Finance and Investment, who was responsible for coordinating the assignment. Other members of the Team include Dr Angelo Mondlane, Director, Policy Planning and Resource Mobilization, Mr. Remigious Makumbe, Director, Infrastructure and Services, Mr. Stephen Sianga, Director for Social Human Development and Special Programmes, and Mrs Margaret Nyirenda, Director, Food, Agriculture and Natural Resources.

We are equally indebted to the team of three Regional Experts, availed by UNECA namely, Dr. Yousif Suliman-Team Leader, Professor Anthony Hawkins and Seth Akweshie, members of the team, who were responsible for putting together the Strategy and Roadmap. Their work was complemented by that of the following national experts: António Henriques da Silva, Malekantwa Mmapatsi, Tshikuku Kabeya, Peete Molapo, Richard Rakotoniaina, Dr Hudson Mtegha, Mrinalsing Ramhit, Dr Peter Coughlin, Errolice Tjipura, the late Kamalandua Winnie Sibongile, Dr Moses Tekere, Allan Kilindo, Professor Samuel Mwita Wangwe, William S. Mbuta, Dr Eli Mtetwa and Saul Levin and Sithembiso Mtanga from Trade and Industrial Policy Strategies (TIPS).

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I. INTRODUCTION

The primary orientation of the strategy is the necessity for the structural transformation of the SADC region by way of industrialization, modernization, upgrading and closer regional integration.

....but the strategic thrust must shift from reliance on resources and low cost labour to increased investment and enhanced productivity of both labour and capital.

The SADC Industrialization Strategy and Roadmap is formulated in the context of existing national and regional policies and specifically the August 2014 Summit at Victoria Falls, Zimbabwe, which was held under the theme: "SADC Strategy for Economic Transformation: Leveraging the Region's Diverse Resources for Sustainable Economic and Social Development through Beneficiation and Value Addition". Summit directed that industrialization takes centre stage in SADC's regional integration Agenda. To this end, Summit mandated the Ministerial Task Force on Regional Economic Integration to develop a strategy and roadmap for industrialization of the Region.

Within this context, Summit also "requested the Committee of Ministers of Trade, assisted by the Secretariat, to review Priority A in the draft Revised Regional Indicative Strategic Development Plan (RISDP), 2015-2020, particularly the sequencing of targeted outputs on Industrial Development and Trade Liberalisation in order to ensure that, at the current stage of integration in SADC, industrialization is prioritized".

Council also directed the Secretariat to finalise the revised RISDP by frontloading industrialization in its implementation plan and to mainstream the theme in the revised RISDP.

The Strategy is premised on the conviction that regional integration will promote industrialization. It recognizes that industrial policy and implementation will be largely undertaken at the national level and that its success depends on forging a compact for industry consisting of the government, the private sector, civil society, labour and the development partners.

The SADC Industrialization Strategy and Roadmap seeks to engender a major economic and technological transformation at the national and regional levels within the context of deeper regional integration. It also aims at accelerating the growth momentum and enhancing the comparative and competitive advantage of the economies of the region.

This entails the pursuit of a focussed programme for the accumulation and deployment of knowledge, modern physical assets and human capital, particularly the youth as well as other capabilities. A transformed economy has greater promise for substantially raising living standards, generating employment, alleviating poverty and mitigating external shocks.

The Strategy is designed as a modernization scheme, and is predicated on maximum exploitation of comparative advantage and creating enduring conditions for competitive advantage at enterprise level. The latter thrust requires earnest efforts aimed at enhancing technological setups and readiness, changes in the way of doing business, scaling-up productive capacity and enhancing economic interlinkages to unlock regional potential in general. Sustainability of the process would thus require turning the economies into knowledge-based and competitive structures. Such efforts, while requiring quality changes in a wide range of policies and actions, indeed recognize, and build on, the efforts already made nationally and regionally.

The Regional Strategy is driven by national development strategies, visions and plans and primarily by the SADC Treaty, the RISDP, SADC protocols and specifically by the Industrial Development Policy Framework (IDPF). It is also informed by African Union's Accelerated Industrial Development of Africa and Agenda 2063.

Given the initial development conditions in the majority of SADC countries, the transformation drive should effectively target higher levels of growth and deeper structural change. This requires deliberate and induced interventions to enhance factor accumulation (labour, capital and technology) to substantially raise total and factor productivity. This implies the (direct or induced) shift of resources to more dynamic higher productivity uses, which fundamentally means manufacturing, broadly defined to include agro-processing and minerals beneficiation as well as some development and business enabling services.

In the 21st century, SADC economies can no longer rely on rich resources or low-cost labour as a platform for industrialization and modernization. The strategic thrust must shift from factor accumulation growth – employing more labour and investing more capital – to total factor productivity, which is the efficiency with which resources are deployed in the production process. Catching up is dependent on narrowing productivity gaps both between sectors within SADC economies and with more advanced economies, necessitating a focus on advanced skills and state-of-the-art technologies. The fact that 60 per cent of world trade is in intermediate products strengthens the case for value-addition in SADC economies and value-chain participation.

Industrial policy must be crafted within the context of a country's competitive advantage, including future or nascent advantage. The essence of transformation is diversification via upgrading and climbing the technology ladder. Successful industrialization will be achieved not just by doing things better – though that is a key factor – but also by doing different things, implying industrialization is achieved through diversification.

The primary orientation of the Strategy is the necessity for the structural transformation of the SADC region by way of industrialization, modernization, upgrading and closer regional integration. Industrialization should be seen as a long-term process of structural transformation and enhanced competitiveness of the entire SADC region. The SADC region is in catch-up mode and needs to run faster than other emerging economies to converge with upper middle-income and high-income countries.

2. STRATEGIC OBJECTIVES, GUIDING PRINCIPLES AND CORE PILLARS OF THE STRATEGY

2.1 Strategic Goals

Strategic goals are both qualitative and quantitative.

(a) Quantitative

The Strategy envisages substantial quantitative shifts in industrial structure, manufacturing, production, exports, particularly those in the medium- and high-technology categories, while doubling industrial employment.

The quantitative goals and growth targets are aspirational in the context of long-term transformation of the SADC economy and creating the knowledge economy of the future. They are also informed by the strategic desirability of converging SADC economies as a group and within the context of the continental development agenda 2063. They are also guided by the historical performance and the potentialities associated with the transformational programme incorporated in the Strategy. The

quantitative goals include the following:

- (i) To lift the regional growth rate of real GDP from 4 percent annually (since 2000) to a minimum of 7 percent a year.
- (ii) To double the share of manufacturing value added (MVA) in GDP to 30 percent by 2030 and to 40 percent by 2050, including the share of industry-related services.
- (iii) To increase the share of medium-and-high-technology production in total MVA from less than 15 percent at present to 30 percent by 2030 and 50 percent by 2050.
- (iv) To increase manufactured exports to at least 50 percent of total exports by 2030 from less than 20 percent at present.
- (v) To build market share in the global market for the export of intermediate products to East Asian levels of around 60 per cent of total manufactured exports.
- (vi) To increase the share of industrial employment to 40 percent of total employment by 2030.

(b) Qualitative

The Strategy is transformational in terms of socio-economic transformation nationally and regionally.

The qualitative goals seek to:

- (i) Achieve a major socio-economic transformation at the national and regional levels.
- (ii) Accelerate the growth momentum and enhance the comparative and competitive advantage of the economies of the region.
- (iii) Diversify and broaden the industrial base and interdependences.
- (iv) Enhance the productive capacity, productivity and competitiveness of SADC economies.
- (v) Provide a framework for technological and industrial catch-up, export diversification, natural resources beneficiation, enhanced value-addition and increased regional trade and employment generation.
- (vi) Develop viable regional value chains capable of interacting with global value chains and identify areas where the SADC region can have the greatest success in capturing high opportunities based on present and future strengths and capabilities.
- (vii) Build a collaborative but challenging strategic partnership between governments, the private sector, the civil society and the development partners as a compact for industrialization.
- (viii) Ultimately, build firm and enduring foundations for a modernized SADC economy.

2.2 Essential Elements for Industrialization

The SADC Industrialization Strategy emphasises the following 14 essential elements/prerequisites for industrialization:

- (i) Industrialization is a key for transformation and strengthening inter-industrial links.
- (ii) Factor productivity as a fundamental metric of development and transformation processes.
- (iii) Technological upgrading and innovation as enablers and creators of employment and competitiveness.
- (iv) Geography and natural resources as crucial factors in establishing national and regional economic clusters to support diversification and interlinkages.
- (v) The recognition of possible impact of the emerging global technological evolutions on trade patterns.
- (vi) The crucial role of the government as a developmental agent in perceiving, developing, promoting and implementing industrial development and creating the requisite environments.
- (vii) The importance of establishing a compact for industrialization and development, consisting of the government, private sector, civil society, development partners and prospective investors.
- (viii) The central role of the private sector as the driver of industrialization and in particular the contribution of small, medium enterprises (SMEs) to employment growth and national development.
- (ix) The acceleration of the tempo of SADC's integration programme and promoting the complementarities of national and regional efforts on industrial development issues and leveraging the positive aspects of the various regional and global agreements of which SADC is party.
- (x) Creation of a stable macroeconomic environment and strong microeconomic foundations for the development and growth of the private sector and promotion of regional economic interdependence.
- (xi) The critical importance of coordination and interfacing of the industrial development efforts nationally and regionally to ensure maximization of gains and avoidance of harmful competition.
- (xii) The importance of ensuring environmental and social sustainability, taking into consideration envisaged impacts of industrialization on climate change and the adoption of technologies and modalities that enhance resource efficiency and reduced waste.
- (xiii) The importance of accelerating empowerment of youth and women to enable them to participate fully in economic development.
- (xiv) The recognition of the role of ICT as an enabler as well as a catalyst to industrialization and the need for mainstreaming ICT in the socio-economic transformation process.

2.3 Three core pillars of the Industrialization Strategy

The Strategy is anchored on three pillars:

- (i) Industrialization as champion of economic and technological transformation.
- (ii) Competitiveness (at the firm/industry, country and regional level) as an active process to move from comparative advantage to competitive advantage.
- (iii) Regional integration and geography as the context for industrial development and economic prosperity.

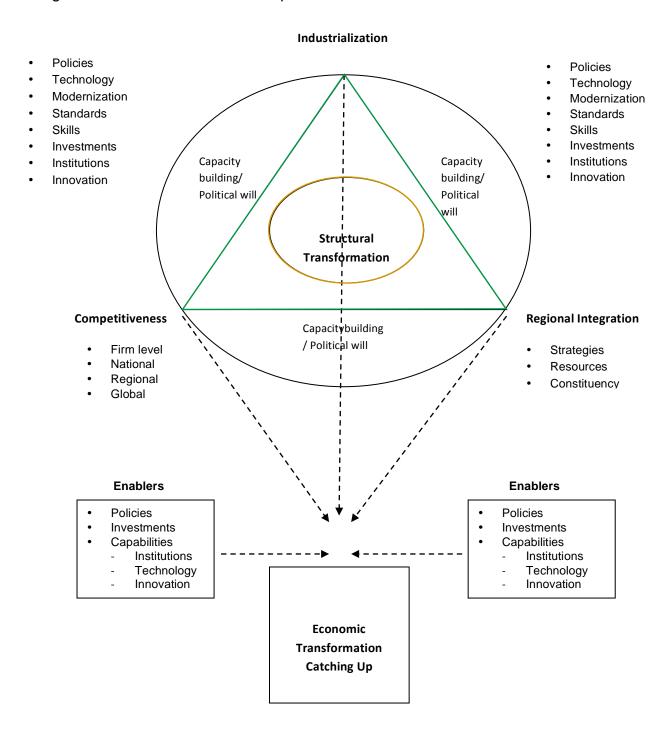
The long-term transformation of the SADC economies requires focused qualitative and quantitative shifts in industrial structure, its enabling environment and the interdependence with other sectors to maximize the direct and indirect value addition in the industrial sector broadly defined to include related support services. In so doing, industrialization will need to be situated within the global dynamics of competitiveness, quality of products as well as flexibility to respond to internal and external demand dynamics. The positive spill-overs from industrialization will stimulate employment and substantially raise income levels. A sustainable industrial sector of the future should be resilient and with high propensity for continuous modernization.

SADC countries are equally challenged to substantially enhance their competitiveness to supplement their inherited comparative advantage in natural resource-based production and exports. Action should therefore target the competitiveness of firms as well as the economies at large.

Deeper regional integration reinforced by industrialization and enhanced competitiveness should provide the context for the region's development. Enabling the productive and distribution capacities of the process will help remove structural impediments and enhance factor productivity.

The pillars are interdependent: Each is uniquely important, but only when they are pursued together will they satisfy the requirement of maximum effectiveness (Figure 1).

Figure 1: Transformational Interdependences



3. STRATEGIC INTERVENTIONS

The strategic interventions cascade down from those influencing economic growth to those specific for accelerated industrial growth and the reversal of de-industrialization. In this context, while taking on board the strategic goals, particular attention is given to front-loading industrialization within the framework of regional integration. Major strategic actions will need to be reinforced in order to achieve the overarching objectives of the Industrialization Strategy. These will include strategic policies and prioritization of policy interventions.

3.1 Macroeconomic Framework

SADC countries should target macroeconomic stability within a developmental state with a specific focus on inclusive growth, economic diversification, enhanced competitiveness and deeper regional integration.

SADC countries need to establish and maintain a stable and conducive macroeconomic environment to enhance growth and support regional integration industrialization and competitiveness. To this end, in addition to the macroeconomic convergence efforts of the Committee of Central Bank Governors (CCBG), SADC countries should use macro-economic policies to foster accelerated industrialization within a developmental state. Appropriate integration and industrial enhancement policies should strike a balance between achieving development goals within a regime of fiscal and monetary prudence. In particular, there should be close consultation between ministries responsible for trade and industry and the relevant fiscal and monetary authorities on the use of macro-economic instruments to facilitate accelerated industrial development. This would require greater fiscal discipline and enhanced capacity for timely implementation of the development programmes. Pacing and sequencing of the policies should be seen as part of the greater transformation of the region and evolution of its societies throughout the long term growth paths of the SADC region through to the year 2063, where it will converge with the continental developmental targets.

The input of the private sector and other stakeholders should be taken into account in the process of macroeconomic policy formulation. The policy should envisage a greater role for this sector in shouldering its share in the cost of development endeavours. An enhanced role for the sector, coupled with deepening capital markets, would greatly enhance opportunities for joint national-foreign partnerships and create growth dynamics that would contribute to the widening of the tax base.

- (i) The macroeconomic framework should focus on catalyzing the transformation of production, ensuring the attainment of elevated levels of competitiveness and meeting the macroeconomic convergence requirements for the region as a whole.
- (ii) To ensure sustainability, the developmental macroeconomic policy regime should aim at achieving:
 - inclusive quality growth;
 - economic diversification and competitiveness;
 - deeper regional integration; and
 - macroeconomic policy convergence.

3.2 Revitalizing Regional Integration

Frontloading industrialization will be promoted by the implementation of a conscious strategy of developmental regionalism – sequencing trade liberalisation alongside policy actions to build productive capacity, primarily in the private sector.

Regional integration is one of the three cornerstones of the SADC Industrialization Strategy. Deeper regional integration is a sine qua non for collective development. To that end, Member States should accelerate implementation of SADC policies, protocols and agreements. Collective development requires complementarity of production and trade structures and policy convergence over time.

The Strategy recognizes that the frontloading of industrialization will be promoted through the adoption of a strategy of developmental regionalism. This implies sequencing trade liberalization alongside conscious policy actions to build productive capacity in Member States, predominantly in the private sector.

- (i) In pursuit of accelerated regional industrialization, national governments should re-align and interface their policies and plans in line with SADC's regional industrial priorities.
- (ii) Regional programmes and initiatives should be re-focused to give added impetus to regional industrial development. Of particular importance in this regard would be the immediate implementation of industrial development pillar of the Tripartite once it has been approved.
- (iii) International development partners are urged to recognize the centrality of regional industrialization and reflect that in their financial and technical support to the region and to Member States.
- (iv) Economic space in SADC will be significantly expanded as a result of the Tripartite and the Continental Free Trade Areas. To maximize the benefits of these arrangements, it will be important to rationalize existing Rules of Origin systems to support industrialization.
- (v) In the context of regional integration, Member States in their policy formulation should take into account the impact of their policies on other SADC members.
- (vi) SADC states should commit to coordination of industrial policies towards convergence over the medium-to-long-term to ensure that all Member States benefit from SADC membership.
- (vii) A strengthened constituency for regional integration is a critical necessity as part of the process of deeper integration. To that end, Member States should improve the dissemination of information on the implementation of programmes, protocols and projects.
- (viii) It is essential that Member States embrace and internalize the spirit and letter of FTA rules in their trade and industrial policies.

- (ix) Policymakers at both the national and regional levels should give careful consideration to the necessity of matching further trade liberalization especially with third parties, with the envisaged acceleration and front-loading of industrialization.
- (x) A widened economic space would require significant enhancements of the regional infrastructure, including financial institutions and arrangements as well as overall mac roeconomic policy convergence.

3.3 Removing Binding Constraints

Accelerated industrialization is being hampered by three binding constraints - inadequate and poor quality infrastructure, a severe deficit of the skills needed for industrial development and insufficient finance.

The country reports show very clearly that three main obstacles stand in the way of accelerated industrialization in SADC – the infrastructure deficit, the scarcity of skills, especially those essential to progression up the technology ladder, and financing. None of these is susceptible to short-term, quick-fix solutions. It is also evident that there is a need for greater participation by the private and joint action with the public sector to achieve the strategic goals.

A. Infrastructure

Efficient and affordable infrastructural services (consisting of transport, communications, ICT, energy and water supply) are critical inputs for reducing transaction costs for industry and trade, as well as for enhancing the economic and social wellbeing of society at large. Effective implementation of the SADC Industrialization Strategy would indeed require the building and/or close coordination of these services in a timely and optimal manner. To this effect, the Strategy calls for:

- Enhanced access to quality infrastructure;
- Timely and locational availability of services to reduce input and transaction costs;
- Addressing the infrastructural deficits at the national and regional levels;
- Provision of quality and climate resilient infrastructure for the implementation of the Industrial Upgrading and Modernization Programme; and
- Upgrading the transport, energy, ICT and water supply infrastructure.

Increased investment in new infrastructure, soft as well as hard, allied with improved management, performance and additional spending on maintenance, are prerequisites for industrial take-off.

In tackling the infrastructure deficit through increased investment in new facilities, extra attention should be paid to maintenance, quality and environmental factors such as climate change. It is not just the supply of infrastructure that is constraining economic development, but the failure to provide adequate resources for the upkeep and maintenance of existing structure, while ensuring that due attention is paid to the quality of infrastructure provision, particularly in such areas as ICT.

- (i) Accordingly, the current Regional Infrastructure Development Master Plan (RIDMP) should be fast-tracked and aligned to meet the varied needs of the Industrialization Strategy also ensuring that the use of existing infrastructure capacity is optimized.
- (ii) A strategy for leveraging the RIDMP should be developed to catalyze industrial development and reduce current high costs of doing business, including those related to Non-Trade Barriers (NTBs) and local procurement of inputs for infrastructure development.
- (iii) The infrastructure support programme for industrialization should be planned and implemented as a continuum, extending beyond the medium term.

Beyond 2020, the Roadmap addresses the long-term infrastructure interventions. Within this context, Member States should have the flexibility to suit their domestic conditions. Yet the overall industrialization and transformation efforts should be consistent and complementary. While governments are expected to take the lead, the private sector should be greatly involved.

Quality and Maintenance

The poor quality and inefficiency of existing infrastructure in the SADC region is largely traceable to the neglect of standards in asset procurement and operation and inadequate maintenance and management.

- (i) New funding should include adequate provision for repair, maintenance, rehabilitation, reconstruction and asset replacement costs.
- (ii) Member State national budgets should include increased allocations for operational and maintenance expenditure.

Energy

The SADC region faces a serious energy deficit and with the implementation of the industrialization Strategy, this gap will widen unless the supply of electricity is substantially increased, drawing on the ample hydro-power potential of the region.

- (i) Member States should increase public investment in energy provision both for domestic use and export to regional partners through the Southern African Power Pool.
- (ii) Attention should be paid to the reliability, efficiency and cost effectiveness of energy supply.
- (iii) Simultaneously, governments should step up the involvement of independent power providers to ease the burden on government investment spending.
- (iv) In addition, alternative sources of energy should be exploited with a particular focus on renewables.
- (v) The region should adopt energy efficient technologies to reduce the cost of production and minimise green house gas emissions that contribute to climate change.
- (vi) Attention should be paid to greater energy pricing efficiency within the context of deeper regional co-operation. Cheap energy is a necessary condition for industrial competitiveness and to that end, Member States should draw on lower cost regional supplies where practicable, rather than focusing on national self-sufficiency.
- (vii) Current plans for hydro-power network connectivity and proposed new generation and transmission projects should be fast-tracked including regional joint-ventures. Member States should accelerate the design and implementation of an appropriate institutional framework for the early development of the Inga Dam project which has enormous potential for the supply of low-cost electricity to the SADC region.

Transport

The expansion, upgrading and interconnection of the regional transport systems (road, rail, air and ports) would greatly enhance trade flows and the mobility of factors of production.

- (i) The efficiency of the present transport corridors should therefore receive particular priority to enhance trade facilitation and open up alternative transport links.
- (ii) The effectiveness of the regional transport system depends on the efficiency of interfacing between the multi-modal transport components. Closer regional co-operation is required for this to be achieved.
- (iii) Increased investment is needed to improve the quality of the regional transport network across all modes while promoting alternative renewable energy sources for the transport sector.

Information and Communication Technologies (ICT)

In order to accelerate industrialization in the region and achieve socio-economic transformation, there is a need to mainstream ICT in all aspects of the economy. ICT should also be seen as a strategic enabler across the economic and social spectrum of life in view of its potential capacity to help generate knowledge, leverage and enhance technological readiness and promote innovation. To this effect, SADC should fully operationalize its Digital SADC 2027 framework and the ICT component of the RIDMP to catalyse industrialization. In this context, the following issues must be taken into account in the industrialization process:

- (i) Globalization, the ICT revolution and the competitiveness challenges have heightened the demand for modern communication systems. Modern industrial production and trade have become particularly ICT intensive and reliant. The SADC region should leverage on the opportunities presented by ICT to catalyse industrialization. By drawing on successful experiences elsewhere, SADC should strive to become an ICT manufacturing hub. The ICT sector should facilitate the development of capacity to manufacture electronic goods in the region in order to support the SADC electronic goods market and support decisions which are relevant to the region at international fora.
- (ii) ICT has contributed immensely to the growth of the services sector in the region, and has great potential for raising the industry's efficiency, quality, productivity and competitiveness.
- (iii) In order for industrialization to become the most important engine of growth, development and catch up for developing countries in the 21st century, SADC needs to exploit ICT and promote regional ICT manufacturing (electronic goods), content and software development. This would enable a sustainable supply to the regional electronics market and will provide SADC with an opportunity to be an exporter of electronics goods to the continent and beyond.
- (iv) ICT Research and Development (R&D) should be a crucial focus area to support industrialization and enhance linkages between R&D institutions and industry.
- (v) The ICT sector is an important incubator for creating and protecting regional intellectual property and extending the frontiers of innovation.
- (vi) E-strategies would need to be enhanced and internalized in public and private sector operations.
- (vii) By drawing on successful experiences elsewhere, SADC should strive to become an ICT manufacturing hub.
- (viii) By international standards, internet connectivity and mobile telephony costs in SADC are high and action is needed to reduce costs through targeted investment in ICT facilities including additional operators and competition within the sector.
- (ix) SADC should put in place measures to improve the supply and quality of ICT skills in the region.

Water Supply

Water and sanitation development and management are among the critical ingredients of industrial development. Industrialization and associated urbanization also have significant environmental spill-overs. Water demand will rise exponentially in response to industrial expansion and the related increase in income levels, a problem that will be exacerbated, on the supply side, by climate change.

It is therefore important to fast track the implementation of the SADC Strategic Water Supply Infrastructure Development Programme (SWIDP) taking into account the provisions of the Climate Change Adaptation Strategy for the Water Sector.

B. Skills Development

Increased spending on formal academic education is a necessary, but not a sufficient condition for industrialization.

Education is pivotal and should be re-purposed to bridge the technology gap between the SADC region and its international competitors. A knowledge-based economy will require a high level of science, technology, engineering and mathematics (STEM) training.

To support industrialization, education systems would indeed need to be restructured and re-purposed with focus on technical and vocational skills of all kinds, especially those appropriate for a modern, knowledge economy.

All SADC Member States devote a substantial part of public spending to formal education. Despite this, all the countries have serious skills deficits, implying that education priorities need to be revisited with more resources made available for vocational training of all kinds, and especially those required in medium- and high-technology industries and occupations.

- (i) Education system should be re-shaped to ensure that young people are trained and re-trained to meet the demands of modern business and public administration with specific focus on mathematics, science and technology disciplines, and innovation.
- (ii) Tertiary education should be required to produce quality graduates in STEM disciplines.
- (iii) Regional centres of excellence and specialization should be identified and strengthened and new ones established where appropriate.
- (iv) Universities and other tertiary educational institutions should be encouraged to create close links with the business and industrial communities and the latter should be consulted on the curriculum design.
- (v) Employers should be incentivized with tax breaks or outright subsidies to step up their in-house training programmes and support research and development.

(vi) Member States should facilitate the movement of factors of production – capital and skills - within the SADC region. To this effect, there is particular need for undertaking a skills audit at regional level and establishing mutually agreed accreditation frame works as important elements of critical resource availability and enhancing productivity.

C. Financing

To overcome the severe constraints imposed by the infrastructure and skills deficits, governments will need to re-order their public expenditure programmes to give greater priority to public and private investment in physical infrastructure and human capital development. In part, this will depend on the willingness of governments and electorates to embrace the paradigm of change in the form of a switch from consumption-led economic growth to investment-driven expansion.

3.4 Industrial Development

Frontloading industrialization should be a function of diversification – enterprises breaking into new industries, utilizing new processes and producing new and better quality products for domestic and foreign markets.

Designing industrial policy within a regional integration context is a complex matter due to the economic diversity of the Member States, in terms of structure, endowments, size and approaches to regional policy. Regional industrial policy should not concentrate on the production and exchange of physical goods only. Services linked to industrialization are important constituents. However, the appropriateness of a regional industrial policy is judged by a number of parameters, notably:

- Effectiveness in addressing common and cross-cutting concerns;
- Prospective insights through incorporating present and future challenges and opportunities;
- Incorporation of industry-supporting micro and macroeconomic measures in an integrated manner;
- Equity in sharing gains and obligations; and
- Demonstrated commitment by Member States to the development of common industrial policies and strategies.

Ultimately industrialization is a function of diversification – enterprises breaking into new industries, producing new and different products, using new and more sophisticated techniques. In the 21st century, market demand is growing more rapidly for sophisticated products than traditional ones – witness the explosive growth of the markets within SADC for mobile telephones and tablets. Entry into such industries will be difficult but there is enormous potential for SADC industry by exploiting a task manufacture approach and integrating into regional and global value chains.

Economic diversification is a discovery process dependent on close private-public sector collaboration.

Diversification policy should be founded on effective partnership with the enterprise sector to identify projects, products and processes that will broaden the industrial base and propel economies up the value addition and technology ladders. Member States should establish working parties drawn from the public and private sectors charged with identifying new products and processes that "fit" the country's actual and nascent comparative advantage. In collaboration with the private sector policy-makers should generate a list of industrial diversification projects, also identifying those for which there is potential to develop regional and global value chains.

New activities should satisfy 4 main criteria:

- Provide large-scale employment for largely unskilled workers exiting agriculture as productivity rises in that sector;
- Have higher productivity than existing or shrinking sectors;
- Policymakers should take note of the risks implicit in projects that are very advanced technologically in terms of financial and human resources for a country at its current stage of development. Activities in which countries and firms have comparative and competitive advantage are more likely to succeed than those requiring a completely new set of competencies; and
- Projects should be economically and financially viable over the medium-term.

Much of industry in SADC, excluding South Africa, is engaged in producing basic goods for the consumer market. A central element of diversification strategies should be industrial restructuring with a thrust towards the manufacture of intermediate and capital goods, notably engineering, machine tools and high-tech production systems. Harmonization of such projects within the region is desirable to secure the necessary economies of scale while also building cross-border linkages in the supply of inputs.

Particular attention should be paid to task manufacture by way of participation in regional and global value chains. This is consistent with closer regional integration since membership of an FTA facilitates the development of regional value chains. It also provides opportunities for the smaller and less developed Member States to realise concrete benefits from SADC membership.

3.5 Potential Growth Paths

Three mutually compatible growth paths are prioritized – agro-processing, minerals beneficiation and downstream processing and enhanced participation in value chains at the national, regional and global level.

Traditionally there have been five main growth paths for emerging economies seeking to generate rapid output and employment growth while alleviating poverty and reducing income inequality: domestic demand-driven; agriculture-led; natural resource-led; export-led; and services-led. In the last 25 years, as part of the accelerating globalization process, a sixth option – value chain participation – has emerged.

It is recognized that most of the pragmatic policy measures will be implemented at national not regional, level. Within SADC development context, and based on recent experiences regionally and globally, the Industrial Strategy identifies three clear-cut priorities for accelerated industrialization:

- Agriculture-led growth including agricultural value chains;
- Natural resource-led growth including minerals beneficiation and processing, also linking into value chains, both regional and global, and
- Enhanced participation in domestic, regional and global value chains.

These three prioritized strategies are mutually compatible. Policymakers are not required to choose between them. Projects under all three can be implemented simultaneously, subject to their financial viability and their regional and/or global competitiveness.

A. Agro-processing

Increased agricultural productivity and higher quality products are central to the development of agro-industry and agriculture-based value chains. Accordingly, agricultural policies cannot be developed in isolation from the industrialization strategy. A vibrant agricultural sector will stimulate domestic and regional production of essential inputs – fertilizer, farm machinery, packaging and support services.

Productivity is lower – often very much lower - in agriculture than in other sectors. The majority of the population live in rural areas, unemployment, underemployment and poverty rates are higher than in the urban economy, while infrastructure falls far short of the levels necessary to support a thriving farm economy. There is therefore a strong case for a strategy of rural industrialization to locate agro-processing industries in rural areas, facilitate rural industrial clusters and make agriculture and agro-processing attractive professions and prospective businesses for the youth.

There is unlikely to be an industrial revolution in SADC without rapid, sustained productivity growth in agriculture.

- (i) Productivity growth in agriculture should be vigorously promoted across the product range, including inputs, as proposed in SADC's Regional Agricultural Policy as an integral component of industrial frontloading.
- (ii) Value addition in agriculture and participation in agro-industry value chains is often inhibited by lack of standardised products, post-harvest losses, inadequate marketing and infrastructure facilities, and insufficient market information. To promote the growth of agro-industrial operations, these shortcomings must be urgently and coherently addressed.
- (iii) Agro-industrial production processes and capacities require upgrading in terms of quality and the modernization of production systems to bring them in line with international standards.

B. Minerals Beneficiation and Downstream Processing

Resource production and per capita incomes in SADC are closely correlated. SADC countries should fully exploit comparative advantage in resource intensive industries through beneficiation and value addition, while also ensuring that the industrial base is upgraded and diversified by intensified downstream processing and business linkages.

Resource production and per capita incomes in SADC are closely correlated. The share of resource output in GDP is highest in the poorer countries, underlining the necessity of adding value to primary resource production via minerals beneficiation and downstream value addition.

...but beneficiation requires huge investments... and pertinent policies on resource exploitation, promotion of interlinkages and ploughing back natural resources rents, through establishment of Sovereign Wealth Funds.

- (i) Major minerals beneficiation projects require huge investments but may also depend on cross-border co-operation in transport or energy infrastructure and input supply. SADC should facilitate cross border infrastructure investment necessary for the development of such projects.
- (ii) SADC should negotiate with destination markets to promote "beneficiation at source" within the SADC region.
- (iii) Policy for minerals beneficiation and downstream value addition should pay special attention to the following four key aspects:
 - (a) Policies specific to natural resource exploitation should be promoted including the provision of resource-specific skills and infrastructure, the availability of inputs (fertilizer, engineering services), issues of ownership and land management and legislation covering exploration and exploitation.
 - (b) The promotion of linkages, including cross-border regional collaboration, between firms, industries and sectors along the primary commodity processing value chain, including backward linkages for the supply of inputs;

- (c) Revenue-optimization, including resource and profit taxation, the management of volatile revenue flows, the avoidance of Dutch Disease currency overvaluation and environmental regulations and their implementation.
- (d) The establishment of Sovereign Wealth Funds with the specific aim of capacity building beyond the natural resource sector through the plough-back of mineral rents into infrastructure and human capital development, along with financing of downstream industrialization projects linked to a country's natural resource endowment.
- (iv) SADC countries should fully exploit comparative advantage in resource-intensive sectors through beneficiation and value addition while taking cognizance of the need to transform the industrial base through intensified downstream processing and inter-linkages.
- (v) Returns from enhanced mineral exports would need to be ploughed back into the modernization of the natural resources sector and leveraged to facilitate industrial deepening and diversification.
- (vi) Regional co-operation in the exploitation of natural resources which often extend beyond an individual country's borders is essential, notably in the sharing of technology and skills, interlinked infrastructure services and input supply.
- (vii) Assess the landscape on forward contracts in the minerals sector to assess the scope and visibility of value addition and mineral beneficiation.

C. Value Chain Development

Value chain participation is a crucial element of the Industrialization Strategy because it has the potential to extend production possibilities and enable cross-border utilization of natural and human resources of the region.

Cross-border value chain development depends on a number of factors, including cheap and efficient transport and streamlined border logistics, as well as the eradication of "behind the border" obstacles to trade.

Most importantly, policymakers should seek to ensure that SADC firms and industries can progress up the technology ladder to avoid being locked indefinitely into low-technology, low-wage "screw-driver" activities.

To this effect:

- (i) Policy should be value-chain specific. In close collaboration with industrialists and entrepreneurs, policymakers should identify the stage or stages of the value chain where enterprises are most competitive.
- (ii) Policymakers need to ensure that a specific value-chain policy does not create losers in other industries or sectors of the economy. Policy should maximize national gains

- rather than those of a specific sector, industry or firm.
- (iii) A potential trade-off is that between a low hanging fruits strategy of easy and quick gains via participation at the low technology, high-employment stage of the value chain and the path to subsequent upgrading into higher skill, greater value-addition activities.
- (iv) Where value chains are buyer-dominated by foreign firms such as major supermarket chains in agro-processing the ability for small and medium SADC firms to upgrade and diversify may be severely circumscribed.
- (v) Low road strategies may foster "race to the bottom" policies by enterprises in different countries without developing the capability for upgrading and diversification. Member States should substantially develop their capacities for the upgrading and diversification of value chains with the close involvement of firms and enterprises as set out in SADC's Industrial Upgrading and Modernization Programme (IUMP).
- (vi) The value chain framework should help realize regional sectoral strategies for capital equipment development, intermediate input flows, and addressing regional commons such as environment and health issues. In particular, special attention should be paid to the development of pharmaceutical products.
- (vii) Policy should be sequenced to ensure that there is an "exit strategy" from low road to high-technology activities.
- (viii) SADC Member States need to redouble their efforts to tackle "behind the border" obstacles to intra-regional trade and regional value chain development. Such reforms are essential for ensuring competitiveness in national, regional and world markets, especially at a time when outsourcing is increasing rapidly.
- (ix) SADC should develop model legislation and regulation for intra-SADC processing and value addition along with a protocol to ensure certainty, predictability, transparency and investor protection.
- (x) Member States should establish appropriate mechanisms for consultations on the operationalization of regional value chains.

3.6 A Compact for Industrialization - The Role of the State and Engaging the Private Sector

A. The Role of the State

Government's central role is the creation of an enabling policy and regulatory environment for accelerated industrialization with a particular focus on tackling the binding constraints of infrastructure, skills development and financing.

The role of the state is to facilitate the establishment and growth of firms and industries that will exploit a country's comparative advantage. Modern industrial policy is predicated on an enhanced developmental role for the government. To this effect, industrial policy should be the central platform of national development strategy. The State should assume leadership functions in strategizing for long term inclusive and sustainable growth, by shaping economic structure, creating more jobs, reducing inequality, strengthening research and development and enhancing the overall productivity of the economy.

Government should also take the lead in building industrial infrastructure such as industrial parks to support cluster development, as well as invest in Research and Development for industrial development and innovation.

The principal developmental role of the state in industrialization include:

- (i) Creation of an enabling regulatory policy and political environment for industrial development, within the context of the SADC Industrialization Strategy and Roadmap.
- (ii) Adoption of trade and competition policies that simultaneously improve market access, restrain market power and create conditions for promotion of employment and industrial capacity.
- (iii) Addressing the capability issues to deepen the local technological base and develop and sustain innovation capacities. This entails significant government intervention and encouragement, technical education, skills development and productivity enhancers should be accorded highest priority.
- (iv) Facilitating the financing of industrial projects.
- (v) Strengthening the institutional capacity for industry and trade. Governments should have a fresh look at the policies and institutions fostering technological and organizational learning and adaptation as complementary processes.
- (vi) Establishment of industrial sites and supporting industrial and geographic clustering.
- (vii) Supporting Research and Development for industrial development and innovation
- (viii) Promoting environmental sustainability by incorporating environmental principles (ecosystem protection, climate change adaptation and mitigation, green and blue economy) in industrial development and innovation.

B. The Role of the Private Sector

The private sector must be consulted and involved in implementing the Industrialization Strategy. Public-Private Partnerships are crucial in discovering and easing constraints on business and employment growth and in improving the climate for Doing Business and attracting investment.

Given the multi-faceted challenges of industrialization in the 21st century, a strong alliance between governments, the private sector and civil society is essential. The engine of progress will be the productive sector driven by entrepreneurial dynamics within the context of a developmental state.

- (i) The private sector should be consulted and involved in the implementation of the SADC Industrial Strategy and Roadmap. Member States should adopt outreach programmes at national and regional levels to ensure private sector awareness of and participation in implementation of the Industrialization Strategy.
- (ii) Governments should establish a platform for public-private dialogue on industrial policy and its implementation, whereby business leaders from Member States could participate in regional policy-making. Such an organization would not only have a vested interest in cross-border collaboration in infrastructure, skills development, value-addition and value-chain participation, but it would constitute a forum in which policy debates might translate into joint cross-border ventures. Government should also create incentives for inclusive business participation within a regional context.
- (iii) The private sector should be involved in helping the state to eliminate obstacles to doing business, advising policymakers of the main problems they encounter in their day-to-day operations.
- (iv) A deliberate, closely-monitored capacity-building programme should be developed for the private sector to enhance entrepreneurial and managerial skills, thereby boosting productivity and competitiveness.
- (v) Since private sector business associations in SADC are for the most part, weak and under-resourced, there is a strong case for creating and strengthening business associations at the regional level. National think tanks with research capability to stimulate and inform the private-public dialogue on policy issues of all kinds are critical. The roles envisaged for such institutions include monitoring the progress of industrialization across the SADC region, providing research inputs and advice to policymakers and the public and private sectors in Member States thereby ensuring that transformation and economic modernization are kept in the forefront of public awareness and debate.
- (vi) Most SADC economies score poorly on Ease of Doing Business and Competitiveness indicators. Member States should use the annual reports and league tables for these two indicators as a basis for improving their rankings, by implementing reforms that are seen to be successful in competitor countries around the world. Member States may wish to establish their own benchmarking systems to monitor industry competitiveness and efficiency.
- (vii) Undertake measures to ensure compliance with environmental principles, rules and regulations.

3.7 Mainstreaming Gender and Youth Issues

Industrialization should hold more promise for women and youth.

Women and youth participation in industrialization and structural transformation is an important ingredient of the Strategy.

- (i) The long-term strategy should contain empowerment dimensions to widen the scope and quality of women and youth's participation in the industrialization process, notably by improved access to finance, skills development and SME support programmes, and livelihood skills of women and youth, particularly in high value-adding industries in such areas as services, manufacturing, horticulture, transport, energy, agricultural and trade industries.
- (ii) Youth unemployment and underemployment is a major challenge for SADC Member States which could be addressed through the development of youth economic empowerment and mentoring programmes.
- (iii) The public and private sectors must increase their efforts to support youth innovation and entrepreneurship and create quality job opportunities for school-leavers and unemployed youth with a specific focus on ensuring that the education system is better tailored to meet the requirements of modern industry.

3.8 Strengthening Small and Medium Scale Enterprises

An integrated strategy for SME development focusing on increasing the small business survival rate via training programmes, access to information, financing, favourable fiscal policy environment and assistance in accessing modern technology is essential.

SMEs, a domain where the majority of women and youth are concentrated, make important contributions to the growth and development of the SADC countries in terms of output, employment, and the supply of consumer products and services. Almost all Member States have SME support initiatives and programmes in place, but they are largely ineffective in sustaining and promoting the sector. The failure and exit rates are generally high. Additionally, existing laws, policies and practices in accessing finance are not sufficiently geared towards making credit more easily accessible for women and youth. An SME strategy should therefore ameliorate these limitations.

Given the challenges facing the SME sector - operational capacity; limited management and entrepreneurial skills; lack of initiative to engage into sophisticated business endeavours; lack of bankable collateral; poor quality of products and services; lack of trade and industry related information; and poor planning – it is obvious that the SME sector requires substantial quantitative and qualitative interventions.

SADC countries need to put in place an integrated policy framework that will help refocus activities and target them to the broader goal of industrialization and transformation. The strategy should include the following:

- (i) Clear policy focusing on graduation and greater sophistication of SMEs allied to their integration into the mainstream economy.
- (ii) Addressing gender inequalities in access to credit, capital, land and other means of economic empowerment as specified in the SADC Gender Protocol and Policy.
- (iii) A deliberate capacity development and upgrading programme: entrepreneurial and technical skills training, incubation and nurturing youth innovation, technological upgrading, study tours, skills development in such important areas as accounting, marketing and management. The formalized programme should establish accreditation levels that could permit small business mobility across SADC countries.
- (iv) A procurement policy that gives priority to local SMEs, especially those owned by women and youth, without compromising quality.
- (v) Measures to foster linkages between large firms and SMEs especially in respect of inputs of goods and services.
- (vi) Financing mechanisms more responsive to the needs and scale of operations of the SMEs going beyond short-term commercial bank or microfinance lending to the provision of medium and long-term funding.
- (vii) Business support mechanisms should in particular support new SMEs with better technological readiness and export potential through the timeous provision of information on market opportunities at home and abroad.
- (viii) Simplification of the fiscal and regulatory framework and the tailoring of specific incentives for SME development and growth.
- (ix) Establish a database of the size and structure of the SME sector, including output, product range, employment and exports and a competitiveness observatory for the development of SMEs as provided in the IUMP.

3.9 Enhancing Competitiveness

In the hyper-competitive global economy of the 21st century, improved competitiveness at both national and enterprise levels is central to revitalising industrialization and rebuilding market share lost to foreign competitors, especially from Asia. Public-Private co-operation and dialogue will be an essential input into elevating competitiveness to the top of the economic policy agenda.

SADC countries face intense, growing competition across all products and markets and score poorly in global competitiveness league tables. Improved competitiveness will depend on enhanced macroeconomic policy design and implementation as well as the diversification of and improved quality of production, with greater sophistication at both process and product level and technological upgrading. Increased competitiveness is fundamental to the transformation of the SADC region from reliance on natural resource and low technology industries to medium-and-high technology production and exports. The Strategy recognizes the importance of national and cross-border clusters and specialized production and export zones, including industrial parks, as a means of promoting competitiveness and the development of regional value chains.

- (i) Member States should put in place a range of far-reaching measures to enhance competitiveness at both the firm and national level, including investment in infrastructure, the development and increased mobility of skills, establishing and strengthening productivity and quality institutes and improved logistics.
- (ii) A partnership for enhancing competitiveness requires close cooperation and dialogue between the public and private sectors.
- (iii) A coherent strategy to enhance efficiency through targeted policies in respect of higher education, goods and labour market efficiency, financial market responsiveness, technological readiness and specific measures targeting the widening of markets for firms. To this effect, the macro-economic environment of firms and enterprises should be speedily and effectively improved through, in particular, removal of business constraints and greater participation in the national, regional and global value chains.
- (iv) High levels of innovation and increased business sophistication are standout characteristics of highly advanced economies. Policies to boost investment in knowledge-based and high-technology industry should be crafted to close the technology and knowledge gap between SADC economies and their comparators, such as those in East and South Asia and Latin America.
- (v) Recognizing that export success in the 21st century depends on quality, price, delivery efficiency and targeted marketing, policies for export expansion should focus on the supply of quality products and the upgrading of production processes. A conducive macroeconomic framework and active trade facilitation measures will greatly facilitate and underpin export-led growth.

- (vi) Regional and international competitiveness is a function of product quality design, packaging and delivery. Bureaux of standards should be capacitated in terms of skills and finance to assist enterprises to raise product and service quality.
- (vii) A SADC instrument to address quality issues is already in place in the form of the Standardization, Quality Assurance, Accreditation and Metrology (SQAM) programme which is under-resourced and should be strengthened.
- (viii) SADC countries should elevate the role of competitiveness as a driver of economic progress in their development programmes.

3.10 Ensuring Environmental Sustainability (Green and Blue Economy)

The SADC region should promote inclusive and sustainable industrialization by taking into account initiatives on the green and blue economy.

A. The Green Economy

The SADC region should implement the Regional Green Economy Strategy and Action Plan for Sustainable Development, which seeks to engender a major and sustainable economic and technological transformation that catalyses the socio-economic transformation of the SADC Region. The Strategy should aim to improve human wellbeing and economic growth over the long-term, while minimising the exposure of current and future generations to significant environmental risks and ecological scarcities and externalities. The main components of the Strategy should include:

- (i) Adoption and promotion of production technologies, processes and practices that improve resource efficiency; promotes environmental sustainability; are low-carbon while resilient and adaptable to the effects of climate-change; and
- (ii) Adoption and promotion of production, consumption and distribution patterns of goods and services that maximises resource use efficiency while minimising wastage of resources and the production of process and industrial wastes.

B.The Blue Economy

SADC should exploit the enormous potential offered by its ocean resources under the Blue Economy Initiative in order to catalyze industrialization and economic transformation. The opportunities under the Blue Economy Initiative include: fishing, shipping, recreation, marine security, renewable energy, oil and mineral exploration, among others. To this effect:

(i) The Blue Economy Initiative should be mainstreamed in developing infrastructure required to accelerate industrialization. In particular, investment in the development and upgrading of regional ports and maritime corridors which is crucial in facilitating viable shipping networks as instrumental enablers for participation in regional and global value chains.

- (ii) The ocean resources should also be exploited in a sustainable manner in order to minimize the negative impact on the environment.
- (iii) The sustainable development and growth of the ocean wealth should be supported by coherent planning, policies and regulatory frameworks.

3.11 Growth Scenarios and Timelines

The Industrialization Strategy should be situated within a generational perspective straddling the years 2015 to 2063. During this period, SADC economies will overcome their binding development constraints and progressively move through the growth stages – from factor-driven to investment-and efficiency-driven and ultimately to the high growth trajectory driven by knowledge, innovation and business sophistication. SADC region will thus be fully transformed and become an important player in the continental and global landscape.

Given SADC's limiting initial development conditions, particularly in the realm of production and factor productivity as well as poor competitiveness rankings, a generational perspective, running from 2015 to 2063, would help the countries achieve their long development goals and regional convergence. The main thrust of the scenarios is to graduate SADC countries from factor driven to investment driven and ultimately innovation high development stage in line with competitiveness stages. Accordingly, three cascading growth scenarios are in order.

- I. Phase I: Years 2015-2020.
- 2. Phase II: Years 2021-2050.
- 3. Phase III: Years 2051-2063.

The first phase covers the remaining period of the RISDP until 2020. The second phase, covering 30 years, constitutes a period of heavy lifting development and establishing strong momentum for competitiveness. The final third phase, covering 13 years, builds up for the convergence with the African Union long term Agenda 2063 and crossing into a fully developed country stage.

Phase I:Years 2015-2020

This phase, which coincides with the implementation of the revised RISDP (2015-2020), should be predicated on the consolidation and achievement of the remaining agenda and laying down firm foundations for long term development. The target instruments and prime movers of the phase should incorporate the following elements:

- (i) A growth strategy, based on the transformation of the production base and social equity.
- (ii) Enhanced guided efforts to raise the quality of human capital and labour productivity.
- (iii) Deepening regional integration and cooperation.
- (iv) The articulation of a new generation SADC Vision 2020-2050, premised on advanced competitiveness and self-sustaining economic development.

During this phase SADC countries should target per capita income growth of about 6 percent annually to achieve the lower income band of the factor-driven stage of US\$ 2000.

Phase II: Years 2021-2050

The Phase II scenario should be elaborated as a continuum to Phase I. During this period, the economy would move from factor-driven to efficiency-driven. It should focus on diversification and productivity of factors and sectors and competitiveness in close partnership between the government and the private sector, both domestic and foreign. To achieve the targeted GDP per capita of US\$ 9000 by 2050 would entail aiming at a per capita growth rate of 8 per cent annually from 2020 onwards.

Phase III: Years 2051-2063

During this phase, the economy would further transform, with its strength based on high levels of innovation and business sophistication. To achieve that status, GDP per capita would need to rise from US\$ 9000 in 2050 to US\$ 17000 by 2063, implying annual income growth of about 5 per cent. This will necessitate an increased focus and investment on frontier knowledge, development of unique skills, stimulating and nurturing innovation, sponsoring competitive enterprises and deepening the entrepreneurial culture.

The three phases could appropriately be cast in a series of medium term plans, cascading into a consistent whole.

3.12 Investment Planning

The long-term investment planning to support the three phases should take into consideration the following dimensions:

- (i) Implementation of the Strategy is primarily the responsibility of each Member State.
- (ii) Development of the regional infrastructure networks (roads, rail, research institutions, etc.) is a shared responsibility.
- (iii) Development of regional value chains (RVCs) and industrial clusters are a joint responsibility for governments and the private sector, supported by national and regional banks.
- (iv) Prioritization of projects should be based on their national and/ or regional strategic importance (e.g. mineral beneficiation), their regional interdependence (e.g. those based on inputs to the regional economy such as manufacturing, agriculture and construction), value addition and employment generation potential.
- (v) A formula for sharing costs (including risks) and returns should be agreed on.
- (vi) Lagging areas should receive particular attention.

3.13 Mobilizing Financial Resources for the Industrialization Strategy

In a catch-up regional economy, Member States must increase both savings and investment as shares of GDP to the levels achieved by Asian comparators. There will be no SADC industrial revolution without substantially higher investment in infrastructure, upgrading and diversifying the capital stock and the provision of the high-technology skills necessary in modern industry.

Existing savings and investment levels in the SADC region fall well short of what will be needed to drive structural transformation, economic diversification and poverty reduction. Given the present and likely future state of the global economy, SADC countries cannot afford to rely on foreign savings to make good shortfalls in domestic savings.

In a catch-up regional economy, investment levels in the region of 30 percent of GDP will be required which will not be achieved without increased domestic savings. Member States should seek to increase their savings and investment rates to the levels of their comparators and governments will therefore need to widen the spectrum of pro-savings policies, including the establishment of sovereign wealth funds where appropriate, to close the savings gap and target quality FDI, the attraction of remittance income and funding from international development partners.

The requisite resources could be mobilized from both domestic and external sources:

A. Domestic Sources

Eight main domestic sources could be tapped:

- (a) The internal fiscal system: Taxation
- (b) The financial sector
- (c) Capital markets
- (d) Private equity funds
- (e) Public-private partnerships
- (f) SADC Development Fund
- (g) Sovereign Wealth Funds
- (h) Remittances
- (i) Institutional savings including Pension Funds

Exploiting the potential of these sources will require deepened financial sector reforms, innovative mechanisms and effective frameworks to maximize and sustain the high level of resources necessary for industrialization.

There is a role for Sovereign Wealth Funds in resource-rich economies to ensure that mineral, oil and gas rents are not repatriated or spent domestically on consumption, but mobilized and used to fund investment in infrastructure, skills and industrial projects.

- (i) Existing financial and monetary reforms should be strengthened and deepened with an enhanced focus on finance for industrial development including improved access for SMEs.
- (ii) Capital markets should be deepened with a specific focus on the provision of mediumand long-term resources for industry, including the use of innovative financing vehicles and institutional savings, such as pension funds.
- (iii) Stock markets should extend the number of companies listed by easing access rules for medium-sized firms and by expanding their new capital-raising operations.
- (iv) Closer links between SADC stock exchanges should be encouraged with the medium -term aim of creating a regional stock exchange.
- (v) Private equity firms should be encouraged and enabled to extend their investment portfolios through investing in areas such as SMEs and agro-businesses.
- (vi) Remittances frameworks, with clear transfer and incentive mechanisms, should be developed to facilitate the mobilization of significant Diaspora savings.
- (vii) Public-private partnerships, including foreign participation, could be used to significantly leverage implementation of major infrastructure and industrialization projects.
- (viii) Sovereign wealth funds should be used by resource-rich SADC states to foster diversification of the economy into manufacturing and services via the transfer of resources from resource-depleting industries thereby reducing long-run reliance on foreign funding.
- (ix) A well-resourced Regional Development Fund is a pre-requisite for accelerated regional industrialization. The planned SADC Development Fund should be urgently operationalized as a regional development bank with the capacity to attract international funding.

B. External Resources

Domestic resources can be significantly complemented by external funding.

- (i) Foreign aid including technical assistance should be geared to frontloading industrialization and generally supporting regional priorities.
- (ii) To ensure effectiveness and accountability, foreign assistance should be closely monitored and evaluated by donors and beneficiaries alike.
- (iii) FDI plays a crucial role in the transfer of technology and in the development of regional and global value chains. To increase FDI, SADC countries should substantially improve their business environment, making the regional space more attractive for foreign investors
- (iv) Competitiveness imperatives dictate that countries should be highly capital selective.
- (v) Intra-SADC FDI is already playing a significant role in financing cross-border projects. Capital controls at national level should be simplified to boost such transactions and ensure repatriation of interest, dividends and capital.

4. CO-ORDINATION, IMPLEMENTATION AND MONITORING

A. Co-ordination and Interface

The numerous activities implicit in this Strategy will need close co-ordination by the Member States who will be responsible for the implementation of most of the recommendations. There will also be a key role for the SADC Secretariat in the co-ordination of projects and programmes.

A Roadmap for the implementation of the Industrialization Strategy is set out below. While the Roadmap outlines the main areas for intervention and action in accordance with the strategic thrust of the Industrialization Strategy, Member States with the support of the Secretariat will develop a detailed and costed action plan.

B. Implementation and Monitoring

Implementation of the Industrialization Strategy within the context of regional integration and competitiveness should be seen as a great challenge to the governments and citizens of the SADC region and their development partners. The Strategy should be implemented as a system of progressive development and transformation. The effectiveness and speed with which the targets are reached will naturally depend on the quality of the efforts deployed. Evaluation of all components, enablers and drivers of the Strategy should be subject to regular monitoring and reporting.

C. Role of the SADC Secretariat

Frontloading industrialization in SADC implies a greater role for the SADC Secretariat in co-ordinating and harmonizing industrial policy initiatives.

At present industrial development in SADC is one of the responsibilities of the Trade, Industry, Finance and Investment Directorate in the Secretariat. Given the fact that industrialization has been elevated to the top of the SADC policy agenda, it is necessary to reflect this in the administrative structure.

Accordingly, it is recommended that capacity of the Secretariat is strengthened in the context of the revised organizational structure that will be aligned to RISDP.

SADC needs a voice in the form of published research and policy reports such as the Asian Economic Integration Monitor published by the Asian Development Bank. Such a publication would raise SADC's profile globally, as well as regionally, enabling it to inform citizens, companies, markets and governments of the progress of SADC regional integration.

5. CONCLUSIONS

The SADC Industrialization Strategy has been articulated as a long-term project of economic and societal transformation. The envisaged three phases straddling the period from 2015 to 2063 correspond to the main vision frameworks of SADC and ultimately that of the African Union Agenda 2063. The associated goals and targets permeate all phases although the policy emphasis and interventions are tailored to meet the challenges to be met over time. Throughout, the challenges of speedy and broad-based industrial development are addressed within the context of elevated competitiveness and deeper regional integration. This interdependence will enable swift catching up of SADC countries and ensure the realisation of progressively higher rewards in income, employment and broader social wellbeing.



THE INDUSTRIALIZATION STRATEGY ROADMAP

The Roadmap outlines the salient areas of interventions, content, objectives, outcomes and responsibilities of main actors (Member States, government, private sector, Development Partners) as well as the sources of funding within the context of a generational industrial development strategy straddling the period 2015 to 2063 for SADC countries to be fully developed and to ultimately converge with the African Union Agenda 2063. The Strategy, developed as a continuum, is built around three cascading growth scenarios that would enable SADC countries to progress from factor-driven to investment-driven economies and thereafter to the high-development innovation stage associated with present developed countries. By then, SADC countries would boast of a deserved status of a fully transformed economy with state-of-art economic setups, frontier competitiveness levels and high income and employment standings.

Phase I covers the remaining period of the RISDP – 2015 to 2020 and constitutes a period of active frontloading of Priority A and related Priority B components on infrastructure and services support into the Industrialization Strategy, together with initiation or continuation of interventions to strengthen integration and competitiveness. A per capita growth rate of about 6 percent annually should be targeted.

Phase II covers the period 2021 to 2050 and would witness the transformation of SADC economies from factor-driven to investment and efficiency-driven stage, and thereby constitutes a period of heavy-lifting interventions. The focus will be on diversification and enhancing productivity and competitiveness. For the countries to converge on lower middle income status, the region should aim to raise GDP per capita to about 8 percent per annum.

In the final Phase III (2051 - 2063) SADC economies would move into the innovation-driven stage, characterized by advanced technologies and increased business sophistication. To reach the lower band of income levels of this stage per capita income would need to further increase by about 5 percent annually through to 2063.

In the Roadmap, interventions covering the period 2015-2063 are outlined within medium and long-term perspectives, organised along the lines of the strategic thrust of the three core strategic pillars – namely:

- I. Industrialization
- 2. Competitiveness
- 3. Regional Integration

It is understood that the various intervention areas of the Roadmap have different gestation periods. It is also understood that there is going to be structural shifts in the same area of intervention as economies move from one stage of development to the other. The Strategy and the Roadmap are articulated to take on board these transformational shifts in a consistent manner nationally and regionally. The total import of the phased interventions is to ensure coherence and efficiency of the resources so deployed.

Priority A and some supporting elements of Priority B of the RISDP of import to industrialization are highlighted with asterisks. The Roadmap revisits the timelines of Priority A and provides confirmation of proposed dates or suggested new dates. Some interventions are continuous, going beyond 2020.

The Roadmap is to be populated by Member States and the SADC Secretariat in consultation with the private sector and the Development Partners.



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