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Summary Report for the Study on:

**Building Back Better from Covid-19 in Southern Africa: Fostering Commodity-Based
Industrialisation, Manufacturing and Regional Value-Chains**

This condensed report looks to strategies for “Building Back Better” from Covid-19, through fostering commodity-based industrialisation (CBI), manufacturing and regional value-chains in Southern Africa. It is centred on making the most of the region’s comparative advantages in commodities production to develop the full commodity value-chains (linkages) through leveraging state assets, rights and purchases and through creating a conducive environment for investing in the commodity backward, forward and knowledge linkages (value-chains) within a regional (SADC) context in order to massify the potential market (scale-economies) and broaden the range of commodity feedstocks for manufacturing and industrialisation by building regional commodity value chains behind common external tariffs (CET), but with compensatory mechanisms to “level the playing field” for weaker Member States to meaningfully participate. Five key regional Value-Chains (KRVCs) are discussed, of which two are value-chain “agglomerators” that bring together numerous value-chains into the manufacture of OEM capital goods, namely, automobiles and renewable energy (RE) equipment (wind, solar, hydro). One is the most important value-chain for manufacturing, namely, iron & steel, one based on the relatively large, in global terms, regional mining inputs market (which is in turn based on the region’s exceptional mineral resources endowment). The last is the most important value-chain for developing the region’s huge unrealised agricultural potential, namely, the fertiliser value-chain. The report recommends three regional strategies, namely, grouping the commodity value-chains into a single regional commodity value-chain development strategy, a regional RE localisation strategy and a regional automotive strategy. The full report will cover a much broader range of issues and strategies.

1. Introduction

1. Africa's experience of the COVID-19 pandemic has been slighter and later than the rest of the world. Africa's share of global cases and global deaths, as at the end of August 2021, is 2.6% and 3.0% respectively. COVID-19 infections have been concentrated in the North and South of the continent. Southern Africa's share of global cases and global deaths is 1.7% and 2.3% respectively, however, Southern Africa makes up 65.6% of Africa's cases and 75.7% of Africa's deaths (WHO, 2021). The most severely affected countries in terms of infections per capita have been Botswana, Namibia, South Africa and eSwatini and the least affected countries have been Mozambique, Malawi and Angola. The risk of a fourth infection wave will likely be influenced by the rate at which populations are vaccinated and/or the emergence of more infectious COVID-19 variants.

2. The main theme of this report is "Building Back Better" from Covid-19, through fostering commodity-based industrialisation (CBI), manufacturing and regional value-chains in the 11 southern African countries covered by the ECA Southern Africa Office¹ (the full report will cover a much broader range of issues).

3. The CBI theme is opportune given the recent adoption of the "Africa Union Commodity Strategy" (AUCS) by the Ministers of Industry and Trade in September 2021 (AU, 2021). The AUCS notes that 85% of Africa's commodity exports are minerals and accordingly the AUCS builds on the AU's Africa Mining Vision (AMV) adopted in 2009. The other key African document is the UNECA 2013 Economic Report on Africa (ERA) titled "Making the most of Africa's commodities: industrialising for growth, jobs and economic transformation", which builds on the AMV's emphasis on developing the mineral (commodity) linkages for RBI to advocate for "commodity-based industrialisation" (CBI). *"On top of offering short- to medium-term comparative advantages, commodity-based industrialisation can, with the right industrial policies, serve as a launching pad for long-term diversification and competitiveness in new and non-commodity sectors"* (UNECA, 2013 p. 9). *"African countries have a real opportunity to capitalise on their resource endowments ... to promote economic transformation through commodity-based industrialisation"* (UNECA, 2013 p. 258). The recent AU Commodity Strategy resonates with this, with its overall "mission" statement: *"Optimal utilisation of African Commodities to drive value addition, sustainable industrialisation and trade for transformative and inclusive development"* (AU, 2021) and by building on commodity *"Linkages & Diversification"* as well as *"Skills Development & RDI"* as two of the strategy's key "pillars"

4. However, Africa's resource endowments go beyond commodities; into tourism (based on Africa's resources of fauna & flora, biomes, geomorphology, cultural diversity, etc.), into telecommunications (based on its electro-magnetic (EM) Spectrum resource), airspace, et al. All these endowments could potentially be used to leverage the building of commodity and other value-chain linkages and industrialisation, particularly manufacturing, as per the AMV and the AUCS. In addition to resources endowments, southern African states could also potentially use other state "rights" to leverage economic linkages, such as the right (license) for large-scale electricity generation and transmission, the right to large scale water extraction and reticulation (agribusiness, industrial), state rights of way (transport, road, rail and ports concessions), et al.

5. The smart use of national endowments and rights, that require a state license, permission, lease or concession, to leverage industrialisation is at the centre of "Building Back Better". Further, all southern African states could also use state purchases, at all levels of government, to leverage value-

¹ Angola, Botswana, eSwatini, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Zambia, Zimbabwe

chain linkages and industrialisation, particularly backward linkages (local [regional] content) and knowledge linkages (HRD and RDI).

6. These proposals to Build Back Better through commodity-based industrialisation, manufacturing and regional value-chains by using the region's comparative advantage in commodity production through a delicate balance of carrots and sticks, with business facilitation “carrots” (infrastructure, skilling, incentives, access to finance, et al) on the one hand, and leveraging state assets, rights and purchases to require linkages development conditionalities (e.g. local content “sticks”), on the other. This is within the context of deepening regional economic integration to increase markets and to enhance the viability of the establishment of linkages. However, the prescriptive use of State assets or rights to establish value-chain linkages needs to be handled judiciously, as it could also increase costs through rent seeking, entitlement and monopoly pricing.

7. Overall, the 11 Southern African countries have deindustrialised since 1996, except for Angola, Lesotho and Namibia: From 1996 to 2019 the manufacturing value added share of national GDP has increased by 25% in Angola, 86% in Lesotho and 59% in Namibia and decreased by 7% in Botswana, 10% in Malawi, 47% in Mauritius, 23% in Mozambique, 37% in SA, 7% in eSwatini, 38% in Zambia and 64% in Zimbabwe. For comparison, over the same period, this fell by 18% globally, by 22% in Sub-Saharan Africa, by 19% in Latin America and the Caribbean and by -18% in the EU (World Bank, 2021).

8. From 2002 to 2019 industry value added per worker in constant US\$ has increased in all states except Botswana (-25%), Mozambique (-15%) and Namibia (-11%). The increases were in Angola (50%), Lesotho (5%), Malawi (104%), Mauritius (79%), SA (<1%), Eswatini (41%), Zambia (22%) and Zimbabwe (83%). For comparison, over the same period, this increased by 11% globally, by 61% in South Asia, by 14% in the OECD, by 53% in East Asia & Pacific, but fell by 8% in both Sub-Saharan Africa and Latin America & Caribbean (World Bank, 2021).

9. In summary, this Build Back Better (BBB) strategy proposes using Southern Africa's considerable commodity production comparative advantages, particularly mineral commodities, as an opportunity to build the commodity value-chains (backward, forward and knowledge linkages) by leveraging state rights and purchase power, together with creating a conducive environment, to build commodity value-chains, in the context of regional integration (to enhance linkages industry viability and leverage scope through regional value-chains) in order to industrialise, to grow manufacturing and create niche competitive advantages. This is within the global context of challenges, particularly the COVID-19 and future pandemics (BBB for greater resilience) and climate change: the accelerating shift from fossil fuels to renewables, with threats and opportunities, and intra-continental trade opportunities, such as the AfCFTA (tariff reductions) and Afreximbank (trade financing and risk cover), the SADC FTA & CET², the Tripartite FTA, Further opportunities include “Green” financing (funds), the Blue economy, digitisation (connectivity – leveraging the regional EM Spectrum) and others.

10. At the same time this strategy aligns with more than half of the UN SDGs namely:

SDG 7 (affordable and clean energy)

SDG 8 (decent work and economic growth)

SDG 9 (industry, innovation and infrastructure)

SDG 10 (reduced inequality)

SDG 11 (sustainable cities and communities)

SDG 13 (climate action)

SDG 15 (life on land)

SDG 16 (peace, justice and strong institutions)

² CET: Common External Tariff

*SDG 17 (partnerships for the goals)***Other Manufacturing and Industrialisation Opportunities (Not Resource-Based)**

11. Although this BBB strategy concentrates on leveraging the region's comparative advantages in commodities production, there are also industries that could conceivably be based on low unskilled labour costs (e.g., garments), in some states, and possible niche skills in a few instances. The PRC is reportedly shedding 85 million low wage labour jobs³ that could be an opportunity for some Member States, particularly coastal states (Ethiopia has successfully attracted PRC companies based on low-wage labour). Many Southern African states applied forms of ISI (Import-Substitution Industrialisation) behind high tariff barriers, after independence with limited success, but these were curtailed or abandoned during the Bretton Woods Institutions' "free-market" SAPs (Structural Adjustment Programmes) of the 1990s and 2000s, though there has been some return to ISI with the increasing favour of "localisation" policies which this strategy adopts to some degree, but without high tariff barriers, thereby maintaining competitiveness for possible exports.

2. The Importance of building Regional Value-Chains to realise the linkages

12. Due to economies of scale, which limit the viability of national backward and forward linkages, regional markets are essential. Even where domestic demand is sometimes adequate for scale economies, the inevitability of import parity pricing (IPP), where there are only a limited number of players, will lead to escalated prices, close to imports, negating the logistics advantages of having local production. Consequently, *regional economic integration* is essential to increase local demand (market) to augment the viability of establishing value-chain linkages industries and to increase competitive pricing (contain IPP⁴) in order to be able to reap greater benefits from leveraging national endowments and public purchases.

13. All of the ECA-SA southern African states are members of SADC which is the REC⁵ that this Building Back Better strategy targets. The SADC already has a "regional" industrialisation strategy (SADC, 2015), (SADC, 2017) and a regional mining vision (RMV) (SADC, 2018) based on the AMV (AU, 2009) with a raft of strategies to realise the potential mineral linkages into manufacturing, industrialisation and regional value-chains, as does COMESA with its Industrialisation Policy 2015-2030 (COMESA, 2015) and Industrialisation Strategy 2017-2026 (COMESA, 2017). Angola, Botswana, Namibia and Mozambique are members of SADC but not COMESA.

14. Without bringing regional supply and demand into play, strategies for Building Back Better through Fostering Commodity-Based Industrialisation, Manufacturing and Regional Value-Chains, will be significantly compromised. All of the commodity linkages would benefit from larger markets (backward, forward and knowledge linkages), particularly the mineral commodity value-chains which, by value, dominate in Southern Africa.

15. Notwithstanding the need for scale-economies for most of the commodity linkages, particularly the forward linkages, there are nevertheless abundant opportunities for MSMEs, especially in the backward linkages consumables and services (e.g., manufacture of wear parts, repair and maintenance of plant and machinery).

³ <https://www.africanglobe.net/business/africa-85-million-jobs-china/>

⁴ IPP: Import Parity Pricing

⁵ REC: Regional Economic Community

3. Methodology for selecting Key Regional Value-Chains [KRVCs) for “Building Back Better” Regional Commodity Value-Chains, Industrialisation and Manufacturing

16. The five selected Key Regional Value-Chains (KRVCs) are Ferrous (iron, steel, steel alloys, intermediates), Fertiliser (NPK), Mineral Resources Capital Goods, Automotive (towards carbon neutrality?) and Renewable Energy (RE: wind, solar, hydro) and energy storage. The selection methodology is a combination of the regional value-chain potential (regional comparative advantage and relative market size), global energy transition opportunities and the regional value-chain’s potential positive impact, particularly forward (downstream) commodity linkages impact: e.g., the fertiliser KRVC’s massive potential positive impact on tens of millions of peasant farmers, commercial farmers and their workers and agro-processing industries, with abundant MSME opportunities. The mineral and agricultural value-chains have similar configurations (UNECA, 2013) but the mineral ones are generally key for downstream manufacturing and industrialisation.

4. Requisite Instruments to Build the KRVCs

4.1. Leveraging State natural resources, State rights and State purchasing to BBB KRVCs

17. In order to transform Southern Africa’s comparative advantages in the production of mineral and agricultural commodities into associated advantages in the up- and downstream linkages (backward and forward value-added), the Member State’s need to judiciously use their state ownership of assets or authorisation rights to leverage the building of local content and value addition (beneficiation/processing) through linkages development conditionalities in all State leases/licenses/concessions and purchases, maximised through developmental tendering. These include mining licences, state land concessions, water extraction rights and many others.

18. Wherever feasible, State rights/licenses/leases should be allocated through *Competitive Tender*: Member States should consider amending their laws to make the granting of state rights for commodity production only via competitive tender against the linkages development proposed by the tenderer (developmental tendering). All known state assets and state rights should only be disposed of through competitive tender to maximise the developmental impact of commodity production. The up- & downstream value addition (commodity value-chain development) commitments could then be a key bid evaluation element.

19. The whole system of State assets/rights or purchases tendering requires the development of robust, streamlined and transparent mechanisms with adequate M&E, and training of those who will implement and monitor. Well-developed IT systems could greatly facilitate ease of use and transparency. Where possible, (auction) procedures could best be developed and implemented on a regional basis avoiding the need for each country to develop its own mechanisms, or for business operating in different Member States to comply with diverging systems.

20. Southern African states are a major consumer of strategic commodity feedstocks (directly by government or SOCs and indirectly through state contracts), particularly for national infrastructure (construction & power: steel, cement, base metals, et al). All Member States and their SOCs could introduce local content and value-added minimums in all of their state and SOC purchases and contracts, as well as the purchases by their sub-contractors. SA has a local spend system (“designated goods” under their Preferential Procurement Policy Framework Act: PPPFA) in operation and their experience may be of use other Member States (particularly on pitfalls). However, the SA system *excludes* regionally sourced goods. Similar to the *local-regional* content proposal, Southern Africa could consider recognising regional spend in local spend (content) obligations, at a discounted rate inversely proportional to Member State’s GDP/capita, in order to increase demand (regional market) and production economies-of-scale for backward and forward linkage industries.

21. Preferential local procurement is not sufficient on its own, as local enterprises require a conducive operating environment to rise to the opportunities created. These include incentives, tax breaks, affordable finance, skilling, benchmarking, logistics, utilities, exporting support, etc. The administration and funding of incentives can be complex and a significant burden on the state, and in this respect tax breaks may be a more effective mechanism.

4.2. Reciprocal recognition of regional value-added (back & forward commodity linkages development), STEM skilling and RDI

22. The region offers a significant market for commodities production inputs (capital goods, consumables and services), and several Southern African states have or plan to introduce local content (localisation: backward linkages) obligations (conditions), particularly for mineral commodities production (mining and processing). Examples include SA (Mining Charter III), Zambia (regulations under formulation), Mozambique (in the Mining Law, but require enabling regulations), Angola (hydrocarbons), and others. However, no Southern African countries recognise local content created in other states in the region. Likewise, downstream value addition of commodities in other Member States is given no recognition.

23. Regional commodity value-chain strategies need to recognise value addition in other Member States, even if discounted, in order to take advantage of regional economies of scale (regional inputs and markets for beneficiated commodities) and to access a wider range of regional commodity feedstocks for local industrialisation (forward linkages). Consequently, to realise this huge opportunity, the regional market needs to be realised through:

- The incorporation of local/regional content (localisation) requirements, beneficiation (commodity processing) requirements and skilling & RDI (knowledge linkages) requirements into Member States mining laws (licenses), land concessions, water rights and contracts covering the granting of other state rights or authorisations.
- These laws, regulations, licenses, leases, contracts or authorisations need to cater for reciprocal recognition of regional value-added (back & forward linkages development), STEM skilling and RDI (forward linkages development). Skilling and technology development undertaken in other Member States should be recognised, but at discounted values (inverse of GDP/capita).
- Likewise, all Southern African states should introduce legislation that caters for local content (localisation) requirements in state purchases and that recognises regional content (albeit discounted) for these requirements (e.g., the SA PPPFA needs to be amended to recognise local content created in other SADC Member States).

24. Regional content could be credited as local content at a discounted rate inversely proportional to the supplying Member State GDP/capita. If regional supply is in play, albeit discounted, then regional-local content targets could be elevated to 80% for services, 70% for consumables and 60% for capital goods (using SADC FTA RoO definitions of national content). Likewise, if regional demand for key commodity-based feedstocks is in play, then the value-added (beneficiation, processing) targets (obligations) could be set appreciably higher, than those viable for a single Member State.

25. This would need to go together with a regional commodity value-chains investments fund (VCF: possibly as a window in the mooted SADC Regional Development Fund), a commodity value-chains common market (CET), commodity value-chain infant industry protection for less developed members, and an intra-regional trade infrastructure (transport) development facility to lower intra-

regional logistics costs, in order to contain industrial polarisation (greater benefits to the already more industrialised Member States).

4.3. Reliable and cost-effective supply of strategic commodities into the regional economies (key feedstocks)

26. Ensuring the supply of strategic commodity feedstocks into local development could include a common commodities and semis (intermediates) outer import tariffs regime (CET). In this regard it is interesting to note that the EU economic integration was preceded by a regional commodities agreement (steel and coal) in 1951 (ECSA – European Coal & Steel Agreement) before moving to more comprehensive economic integration. Southern Africa should assess a putative Strategic Commodities Feedstocks Agreement (strategy) to ensure that the region can access these critical feedstocks at competitive or developmental prices. A key element of the strategy should be a SADC commodity feedstocks (minerals/metals, scrap, agricultural raw materials and intermediates/semis) common market with outer tariffs to realise the regional market economies of scale, but the strategy would need to incorporate equitable regional integration through concrete instruments that cater for the weaker regional economies (variable geometry) and industrial polarisation (where the benefits of integration mainly accrue to the stronger economies).

27. Given the tendency for monopoly pricing and collusion in commodity-based intermediates (cement, steel, polymers, fertilisers, et cetera), particularly those with high scale-economies and a relatively low value-to-mass (allowing for plant “logistics catchment” pricing), the Southern Africa region needs to consider the establishment of regional regulation/competition authorities for applicable intermediates to curtail market dominance and elevated pricing (IPP), particularly given the cross-border ownership patterns of some of these industries.

28. The most effective method of achieving competitive commodity feedstock prices (EPP) is to facilitate vibrant competition across the range of commodity value-chain intermediate products and semis, through the establishment of new players across the region, within a customs union (CET). A regional commodities/semis and inputs customs union would increase rivalry (competition) due to the much larger market (than individual Member States) permitting more producers at the requisite economies-of-scale, resulting in lower prices to the downstream regional manufacturing industries and their expansion.

4.4. Regional financing of the development of the KRVCs (PFS funding, equity, debt)

29. In order to facilitate the participation of less capacitated Member States in the diverse advantages of a regional commodities value addition (VA) strategy, a *regional finance facility* (VCF: Venture Capital Fund) needs to be configured to overcome the lack of liquidity, high cost of capital and high investment hurdle rates in most of the less-developed Member States, to “level the playing field”. Finance from such a facility should be heavily biased in favour of the economically weaker Member States to facilitate an equitable distribution of the huge benefits of the regionalisation of the commodity value chains.

30. A regional value chains development VCF could be configured for investment project PFSs (Pre-Feasibility Study) funding and debt funding (0-90%), and equity participation (minority VCF equity: <50%), depending on relative wealth of the participating Member State, with a possible multiplier for indigenous-owned projects. The VCF could be established as a PPP between the participating Member State governments and the private sector (commodity producers, suppliers and beneficiaries-consumers) or as window in the proposed SADC Regional Development Fund, and capitalised by the SADC DFIs, pension funds, multilateral DFIs, partner DFIs, donors, commodity

producing companies (e.g. mining companies), Member States, a portion of a common outer intermediates & semis and inputs tariffs (5-10%), as well as development funds and commercial banks (SADC, 2018). Initially, such a VCF could be piloted by 2-3 Member States.

31. Member States that already have operating commodity production linkage industries (backward & forward), have an advantage over new investments because their capex is amortised and their workforce is trained. Consequently, new entrants could be granted time-bound infant industry protection that would permit any Member State to impose a tariff of up to 10% on commodity-based intermediates, semis and inputs imports from other Member States for up to 7 years on new projects that conform to the regional strategy. Such an infant industry tariff would be added to the outer, SADC, tariffs on the intermediates /semis concerned for extra-SADC imports.

4.5. Facilitating the Growth of Local Capital to Build the Commodity Value-Chains (Indigenisation)

32. Global experience has shown that local capital is much more likely to build the commodity production linkages than foreign capital (FDI) (Wright, et al., 2004) due to their deeper knowledge of local suppliers, lack of global purchasing systems, knowledge of local downstream opportunities, lack of global processing facilities and capacity, et al.

33. The facilitation of local capital could be part of the state conditionalities by:

- The incorporation of indigenisation requirements into Member States' mining laws (licenses), land concessions, water rights and contracts covering the granting of other state rights or authorisations.
- These laws, regulations, licenses, leases, contracts or authorisations need to cater for *reciprocal recognition of African ownership*, possibly at discounted values.
- Likewise, all Southern African states should introduce legislation that caters for indigenisation requirements in state purchases and that recognises regional ownership (albeit discounted) for these requirements.

4.6. Trade facilitation of the KRVCs: SADC FTA & CET, NTBs, AfCFTA & Afrexim Bank, et al

34. Bilateral arrangements, RECs and multilateral negotiations have made significant strides in reducing costs of tariffs to facilitate trade flows. The SADC Free Trade Area (FTA) was launched in August 2008 with the maximum tariff liberalisation only attained in January 2012, when the phasing down of tariff on sensitive products was completed (SADC, 2008).

35. Analysis by RECs of regional integration initiatives indicate that the reduction of tariffs has a limited impact on the enhancement of intra-regional trade. It is increasingly apparent that various other barriers contribute more than tariffs to low levels of intra-regional trade. Non-Tariff Barriers (NTBs) are impediments to trade and are especially onerous in Africa. NTBs include import bans, unjustified documentation and conditions, excessive border checks, corrupt and/or lengthy customs procedures and police stops. The average applied rate of tariff protection in Africa is 8.7 per cent, but other obstacles increase the cost of Africa's trade by an estimated 283 per cent (UNECA, 2017 p. 87). Inadequate transit and road infrastructure are important impediments to trade that is examined in the next section. Empirical evidence suggests that NTBs in some instances can add as much as 15% to the price of goods, effectively reducing consumption of goods by the same amount (UNCTAD, 2016).

SADC has established the Trade Monitoring and Compliance Mechanism for monitoring the implementation of the SADC FTA, with a specific aim of identifying and eliminating NTBs. The position of southern African countries, scored on the OECD Trade Facilitation Indicators for 2017 to 2019, show many countries are far from the efficiency frontier. Mauritius, South Africa and Botswana were the best performers, while Malawi and Zimbabwe were the worst performers.

36. More complex products involve greater cross-border flows of raw materials, intermediate inputs and final products. Trade facilitation measures are thus crucial for firms to become integrated into production networks and markets at a regional and global level (OECD, 2013).

37. Regional approaches to trade facilitation make the greatest impact on reducing the cost of doing business, facilitating intra-regional investment and building of RVCs (ITC, 2017). SADC and other African RECs play a significant role in driving deeper integration. The AfCFTA (intra-African tariffs reduction), together with the Afrexim Bank (intra-African trade financing), has the potential to have a profound impact on continental economic relations. A critical role it can play is to implement simplified Rules of Origin (RoO) so firms can participate in regional value chains at scale. Well-designed RoO would widen the range of intermediate goods sourced from within Africa and facilitate more firms in Africa to participate as suppliers and for countries to engage in manufacturing, technological upgrading, and economic and export diversification (UNCTAD, 2019).

38. For this regional commodity value-chains strategy to succeed, the region will need to go beyond FTAs, into a commodity value-chains customs union with CET for backward and forward linkages products, to fully reap the rewards of regional value-chain strategies (larger markets, scale-economies, more diverse range of commodity feedstocks for downstream industries, et al).

4.7. Logistics facilitation of the KRVCs (transport infrastructure)

39. High trade costs for SADC are due to a mix of poor infrastructure and non-tariff barriers (OECD, 2017), which translate into transport costs that are more expensive by at least US\$13/ton (Vilakazi, 2018). Infrastructure is a binding constraint to industrialisation, manufacturing and the building of regional value-chains, therefore closing the infrastructure gap is critical for BBB.

40. Inter- and intra-regional freight movement is captured in the Logistics Performance Index (LPI) which is a comprehensive measure of the efficiency of international supply-chains. A Logistics Performance Analysis (shows that Sub-Saharan Africa has the lowest median LPI score among developing country regions. SADC transport infrastructure compared to the OECD average shows that most Member States have poorer infrastructure than found in Latin America

41. A crucial issue for the development of infrastructure is the funding. The SADC Regional Infrastructure Development Master Plan 2012 estimated a capital requirement of US\$500G⁶ (SADC, 2012). In 2016 SADC members agreed to set up a Regional Development Fund as a financing mechanism for economic infrastructure. Weak fiscal positions, now much worsened by the COVID-19 pandemic, prevented capitalising of the fund. To make progress on regional integration, it is essential for Member States to subscribe the capital necessary to operationalise the Fund and to also attract private funding (pension funds, investment funds) and international funding (OECD, multilateral funders, bilateral funders, et al).

42. Given the criticality of plugging the regional infrastructure gaps, it is proposed that a specific Infrastructure Fund be established based on three inter-locking principles. First, capital should be

⁶ G: giga, billion, 10⁹

raised from national and multilateral Development Finance Institutions (DFIs) and specifically enlisting economic recovery facilities created to deal with COVID-19 pandemic shocks. This should create the opportunity to blend funding sources at different risk levels and allow DFIs to de-risk projects for commercial lenders via first lost funding⁷. Second, the fund should be designed to mobilise private sector financing of economic infrastructure by adhering to strict commercial practices, inter alia, transparent and uniform procurement processes, international standards for bid selection and evaluation, transparent pricing and tariff regulation insulated from political influence. Third, in order to mobilise the limited pool of Member State national savings into infrastructure as an asset class, prudential portfolio diversification rules should be harmonised among Member States. The limits for non-domestic exposure could be set at 40% within which at least 12% should go into SADC. The limit for investments in unlisted assets could be set at 15% of assets under management. These prudential limits should give asset managers considerable choice to fund infrastructure and industrial development, either directly, or via the Regional Infrastructure Fund.

The Kazungula Ferry - Intra-regional Trade Bottleneck

The Kazungula Bridge connecting Botswana to Zambia across the Zambezi River is a strategic connector for the southern African region access to central Africa. River crossing via a ferry service has been in operation since 1979. On the first day of operation truck crossings increased by 224% compared to the ferry, completely eliminating border delays. The new bridge relieves pressure on the Beitbridge border crossing where trucks take an average of four days to cross the border. Border delays make up between 45% and 60% of high transport costs in SADC making this bridge a significant regional trade “game changer”.

43. High intra-regional logistics costs aggravate monopoly “logistics catchment” pricing and pose a significant constraint to all intra-regional trade and economic integration. The SADC Regional Infrastructure Development Master Plan (RIDMP) and its Regional Transport Corridors (SADC, 2012) need to be re-energised and to incorporate a strategy to reduce coastal shipping (cabotage) tariffs and increase ports of call. Non-Tariff Barriers (NTBs) need to be minimised in tandem with a movement towards seamless regional rail operations, rather than border limited operations, regional trucking protocols/regulations (for seamless cross-border movement), regional feedstocks logistics systems (production, blending, storage/depots, packaging, distribution) and regional seamless coaster (cabotage) links around the Southern African coastline, in order to move towards all Member States, enterprises and citizens being able to benefit from regional commodities in the form of customised products (intermediates, semis) at affordable prices.

4.8. Leveraging the energy transition to build better through developing the energy generation, storage and distribution linkages

44. Southern Africa continues to experience energy insecurities which have severe implications for economic growth and development. Energy access in SADC is 48% (below the weighted average for Sub-Saharan Africa), but there is a huge variation across countries. In 2018, in Southern Africa, Mauritius had the highest access to electricity at 99%, whilst it is lowest in Mozambique at 31% and Malawi 18%. From 1990 to 2005 inadequate energy infrastructure is estimated to have cost Southern Africa 20 basis points of per capita of GDP growth. Power generation is dominated by coal 64% and hydro 22% and solar and wind make up 5% only. The power deficiency is a binding constraint on industrialisation that SADC Energy Sector Plans are intended to tackle.

⁷ A form of credit enhancement where the DFI covers a certain amount of loss for an investor in the event of a default

45. Southern Africa has some of the highest quality solar and onshore wind resources globally which remains extensively untapped. Its extensive solar power potential is concentrated on the southwest of the region and most wind power potential is along the SA coastal escarpment and in Namibia (In addition, the SADC has enormous large-scale hydropower potential (estimated at ~200GW), particularly in the Congo River Basin, as well as widespread dispersed small-scale hydro power potential.

46. Costs for electricity from utility-scale solar photovoltaics (PV) fell 85% between 2010 and 2020. New solar and wind projects are increasingly undercutting even the cheapest and least sustainable of existing coal-fired power plants (IRENA, 2021). Renewable energy markets are expanding in South Africa, Egypt and Morocco. For Southern Africa, power can be evacuated from utility scale generation and imported or exported via the Southern Africa Power Pool (SAPP) inter-connectors (SAPP, 2020).

47. Current regional energy master plans lag the renewables cost advantage by a focus on the prospects for coal, hydro or gas projects. Fossil fuel power plants risk becoming stranded assets and funders are becoming increasingly cautious given the environmental, financial and social risks associated with such projects. In 2019 AfDB announced that the bank will no longer finance coal projects (Jerving, 2019). In September 2021 FirstRand Ltd, Africa's biggest bank by market value stated it is ending its funding of new coal-fired power stations immediately and will phase out coal mining funding by 2026 (Bloomberg, 2021). China, the largest financier of infrastructural projects in developing countries, has pledged to stop funding coal fired power projects abroad⁸.

48. Government policies need to embrace a "just energy transition" and harness technology and financing facilities to make the BBB a green recovery. Evidence shows potential economic multipliers for carbon-neutral or carbon-sink activities are positive, at about 2 to 7 times greater than fossil fuels (Batini, 2021). Green projects are more job intensive, create higher short-term returns and give higher long-term cost savings than a traditional fiscal stimulus (Hepburn, 2020), if their value-chains (backward linkages) are localised.

49. The region should harness the cost advantage of RE to create generation and distribution linkages and offset RE variability through utility scale storage and regional power trading. This is essential to create the energy availability, security and pricing necessary to underpin regional value chains and industrialisation.

50. The region should leverage the energy transition by making RE access to the national and regional grid (SAPP) and authorisations (generation, transmission, wheeling) dependent on the local (regional) content of solar energy (PVs and CSP), wind energy and hydro power systems and energy storage, in order to expand the local manufacture of PV cells & panels, CSP mirrors, wind towers, blades, gearboxes, et al, as well as generators, transformers, cabling, masts and storage (batteries, pump storage, hydrogen/fuel cells, etc.) for the whole regional energy system. Further, all green energy concessionary financing and incentives (local and foreign) should be made dependent on the attainment of minimum backward linkages (local content). This will likely require a regional "Energy Transition Protocol" to realise the regional manufacturing industrial opportunities, along the regional energy value-chains.

51. The green energy transition could present a significant opportunity to BBB and industrialise Southern Africa, if all relevant levers are used and if the regional dimension is brought into play.

⁸ This was announced by Chinese President, Xi Jinping in his address at the UN General Assembly on 22 September 2021: Xi says China will stop building new coal-fired power plants abroad (nbcnews.com)

5. Select Key Regional Value-Chains (KRVCs)

5.1 KRVC 1: Ferrous KRVC (iron, steel, steel alloys, intermediates)

52. Regional iron ore reserves are about 6Gt, but resources could be greater than 60Gt. Production is 60-70Mtpa and exports run at 50-60Mtpa (almost all from SA). SADC carbon steel production is 6-8 million tpa and regional demand (consumption) is 8-11M, mainly in the construction (infrastructure) and manufacturing sectors. Crude steel exports run at 2-3Mtpa and value-added steel (in products) exports are 0.8-1Mtpa (almost entirely from SA). Theoretical SADC steelmaking capacity is around 11Mtpa, but the three major plants (AMSA and HS&V in SA and Zisco) are in financial difficulties and obsolete capacity is likely to be permanently closed⁹. Only SA and Zimbabwe have primary integrated iron/steel plants¹⁰. There are several projects for new integrated steel plants, including Zambia (Kafue) and Tanzania (Liganga). There are numerous scrap-based steel mini-mills in the region and regional scrap exports (1.5-2 Mtpa) underpin many more.

53. From 2011 to 2020, SADC imports of iron and steel averaged US\$3.1G/an, peaking in 2013 at almost US\$4G and the region also imports about US\$1.3G/an of articles of iron and steel which could underpin a new integrated mill in the region a substantial downstream linkage opportunity. A regional ferrous commodity value-chain strategy is seminal, given the importance of iron and steel as a manufacturing feedstock. Part of the regional ferrous import displacement opportunity could be realised through the facilitation of the establishment of steel EAF/IF¹¹ mini-mills (primarily scrap-based) for long products in or close to all the region's main consumption centres (urban centres) through a regional VCF, scrap metal export ban and common outer tariffs regime (CET).

54. There is only one stainless steel plant in the region (Columbus Steel in SA) which produces 400-700 ktpa, mainly for export. The raw materials for stainless steel are chromium (FeCr) and nickel or manganese. The region has huge reserves and production of chromium and manganese and moderate reserves and production of nickel. In 2019 SA produced over 16 Mt of chromite (37% of world) and 3.6 Mt of ferro-chrome alloys (26% of world) mainly for export into the global stainless-steel value-chain (USGS, 2021). SA could consider a new low-Ni 200 and 400 series stainless steel plant based on local ferrochrome and manganese metal for downstream stainless-steel fabricators.

55. Most developmental states established state utilities to supply low-cost steel into their manufacturing and construction sectors to underpin their international competitiveness (SADC, 2018).

56. Given the importance of competitively priced steel supply to the region's industrialisation ambitions, a Regional Iron and Steel Development Agreement is needed to determine the optimal sites to produce iron units at a small to medium scale (100-500 ktpa) for the mini-mills (scrap substitute) and integrated mills and the facilitation of their establishment. Finally, given climate change and the global carbon reduction, the feasibility of "green steel" technologies, using hydrogen from RE as the reductant) need to be assessed to give "green" steel plants an export advantage.

5.2. KRVC 2: Fertiliser Commodities KRVC (NPK)

57. It is estimated that in 2020/21 17% (34 million) of the rural population of SADC (over 200 million) were food insecure (SADC, 2020). The cost-effective provision of fertilisers to the commercial and peasant farmers in the region is the key to increasing yields overcoming regional food

⁹ Only the flats rolling mill is operational at the old HS&V works

¹⁰ Zisco is not currently operating, and HS&V steel making has ceased (rolling only)

¹¹ EAF/IF: electric arc furnace / induction furnace

insecurity. Modern agricultural productivity is highly dependent on the fertiliser mineral value chains which provide the plant nutrients, nitrogen, phosphorous and potassium (NPK), to the system. NPK are the primary nutrients required for plant growth and are the main ingredients of chemical fertilisers. Secondary and micro-nutrients may be added to meet the requirements of specific soils and crops.

Regional market economies-of-scale are critical to a regional fertiliser strategy, particularly for nitrogen and phosphate strategies. Consequently, a Southern African Fertiliser Strategy needs to take advantage of the potential regional market by establishing/rehabilitating the requisite infrastructure, to give regional access to fertilisers and products through regional fertiliser logistics systems (production, blending, storage/depots, packaging, distribution), in order to move towards all Southern African farmers being able to benefit from regional fertiliser resources in the form of customised products at affordable prices. The region should be moving towards a regional fertiliser products CET. Regional fertiliser production “nodes”, based on the lowest cost resources and customer supply logistics, need to be developed to supply blending plants across the region, to provide the requisite formulations for the local soils. This must be progressed in tandem with instruments to support the less developed Member States (variable geometry).

58. National fertiliser value-chains development strategies are likely to fail or be limited to small, costly uncompetitive product plants due to domestic market constraints. Even South Africa, with more than half of the regional market, is struggling to establish a competitive fertiliser industry and still has huge imports of fertilisers/formulations. Despite the region having large fertiliser raw materials resources (except for K) the average annual SADC imports of fertilisers (from outside the SADC) over ten years from 2011 to 2020 were US\$1.3G/an, of which 56% were nitrogenous, 14% potassic (no commercial deposits in the region) and 1% phosphatic fertilisers (mainly supplied by SA).

59. The creation of a regional fertilisers CET (tariffs of 5-10%) will inevitably initially strongly favour the Member States with a head-start in the production and supply of NPK products, particularly South Africa and Zimbabwe. This initial asymmetric beneficial impact is common for regional trade areas and is termed “industrial polarisation” which requires amelioration measures or the Member States with less perceived or real benefits will opt out. Consequently, instruments need to be developed to support product manufacturing/transformation projects and regional market access in less developed Member States. Such instruments could include a VCF for inputs and the production of intermediates (fertilisers) as well as logistics infrastructure funding.

60. Fertiliser plants tend to be capital intensive with meagre and skills-intensive employment. The much greater impact is generally in the downstream sectors of agriculture and processing, which tend to have low entry barriers and high unskilled labour absorption potential. To grow labour absorbing agriculture the requisite fertilisers need to be regionally available at competitive prices (EPP).

61. To ensure that competitive and appropriate fertilisers are available to SADC’s farmers, it is necessary to create vibrant regional competition, with several producers across the range of fertiliser products as well as selectively allowing imports to discipline price abuse. In addition, the SADC needs to consider the establishment of regional competition authorities to curtail market dominance and elevated pricing (IPP). A Southern African Fertiliser Strategy is a key part of a SADC Agriculture Development Plan which would require many other interventions, especially for small-scale agronomists and MSMEs in agro-processing, including access to markets, affordable finance, seeds/seedlings, water, extension services, affordable logistics (access to inputs and markets), price and weather data/forecasts, storage facilities (silos/warehouses), et al.

62. As with “green steel”, the viability of green nitrogen fertiliser production, based on the electrolysis of water¹² using RE, instead of natural gas (with carbon emissions), needs assessment, to give an export advantage to agricultural products grown using green fertilisers.

5.3. KRVC 3: Commodity Production Backward Linkages (capital goods, consumables and services)

63. The region offers a significant market for commodity production inputs (capital goods, consumables and services), particularly mineral commodities, where the backward linkage capital goods market is larger than EU (SADC, 2018). Mineral and agricultural commodities production also have significant common inputs such as valves, pumps, separators, mills, screens, truck & trailers, generators/motors, etc. and opencast mining capital goods have a major overlap with construction (earth moving) machinery and equipment¹³. Mining and mineral processing inputs are by and large common to all mineral value chains. The Southern African (ex-SA) backward linkages are weak, except for services in some Member States, The SA inputs sector used to be relatively strong, but is increasingly being displaced by imports, since the exit (re-listings) and/or break-up of the major SA Mining Houses post 1994 (Morris M., 2012).

64. The regional (SADC) mining capital goods import displacement opportunity is around US\$4.6G/an (average for 2011-2020). Of this, SA accounted for 46%, Angola 15%, Zambia 10%, DRC , Tanzania and Mozambique 5%, Botswana 4%, Namibia and Zimbabwe 3% and all other Member States 4%

chain import displacement opportunity represents about 46,000 direct OEM (ITC-Trademap, 2021)

65. This huge mining supply- (Original Equipment Manufacturers) jobs foregone¹⁴. The OEM value-chain (Tiers 1 & 2 suppliers) multiplier is about 2.6¹⁵ (Barnes, et al., 2017 p. 15), which translates into about 120,000 manufacturing jobs foregone in the region. Using light motor vehicle capital goods manufacturing employment multipliers (3.2) as a proxy for mining capital goods economy-wide multipliers¹⁶, total employment forgone across the region could be in the order of 400 hundred thousand jobs!

If only half of the region’s mining capital goods imports are displaced through a well-crafted, supported and incentivised local-regional content strategy, about 200,000 formal sector jobs could be created in SADC and up to a million livelihoods supported.

66. However, to realise this huge apparent opportunity, the regional market needs to be brought into play, through a commodity production inputs CET, and local content requirements, with regional content recognition, need to be incorporated into Member States’ mining laws and licenses¹⁷, agricultural leases/concessions and water extraction rights, ideally together with a LED sub-requirement on local content and labour from the mining and agribusiness communities, especially for services. Regional content could be credited as local content at a discounted rate, possibly inversely proportional to the supplying Member States’ GDP/capita (as per the SADC RMV proposal) (SADC,

¹² To produce hydrogen for ammonia (NH₄) production into nitrogenous fertilisers

¹³ E.g., Bell Equipment in SA is a major supplier of ADTs to both mining and construction sectors.

¹⁴ In SA, mining capital goods manufacturers (MEMSA) employ about 1000 workers for every US\$100 million of sales.

¹⁵ Using the SA automotive OEMs multiplier (2.5)

¹⁶ The SA automotive industry claims 110,000 direct jobs and 357,000 other jobs (3.2 multiplier) in retail, after-market, used vehicles market, repairs, maintenance, services, etc. (NAAMSA Press Release, September 01, 2021. <https://naamsa.net/newsroom-2021/>)

¹⁷ Where imports from other Member States are recognised as local/regional content for mining license targets-milestones, but at a discounted rate, inversely proportional to GDP/capita, from, for example, 50% - 90% of the VA in the supplier Member State.

2018). If regional supply is in play, albeit discounted, then regional-local content targets could conceivably be elevated to 80% for services, 70% for consumables and at least 60% for capital goods¹⁸. This would need to go together with a regional commodity value-chain Development Fund (VCF) and support for knowledge linkages development in less developed Member States in order to contain industrial polarisation. Such a system of reciprocal local content recognition would probably be best tackled by a sub-set of two or three Member States with an appetite to pilot such a mutually beneficial system¹⁹. Once other Member States can observe tangible benefits accruing to the pilot participants, they would be more likely to accede to the scheme.

67. **Lateral Commodity Value-Chains Linkages:** Sections of the commodity production supply industries are technology and skills intensive (particularly capital goods and high-tech services such as ICT) enhancing firm *agility* and the capacity to re-invent itself to supply other sectors of the local and regional economy (and extra-regional exports). *”Drawing on the international experience of successful mineral-based industrialisation... the ‘deepening’ of the natural resources sector through the promotion and support of backward and lateral linkages could result in core industrialisation nuclei... Over time, with increasing human resource development, technology development and skills formation, such resource-dependent clusters could evolve into resource-independent industrial activities.”* (Wits Enterprise, 2015)

68. The “lateral migration of technologies to non-resource sectors can promote further industrial growth and technological advancements in other sectors. This contributes to increased value added and job creation, establishment of new firms and important processes of knowledge-intensification (Walker, et al., 2003). Lateral migration “ensures a long-term and sustained approach to the management of a transient resource base” (Walker, et al., 2003 p. 24).

69. However, the realisation of the *lateral linkages* potential is dependent on the realising the knowledge linkages (STEM HRD and RDI). The migration of backward linkages into lateral linkages industries, represents the final step of commodity-based industrialisation.

5.4. KRVC 4: Automotive KRVC – towards carbon neutrality

70. The main players in the SADC automobile value-chain are global carmakers through affiliates in SA, mainly producing for the local market. Multinational car manufacturers (OEMs) have established subsidiaries in eight SADC countries: Angola, Madagascar, Malawi, Mauritius, Mozambique, South Africa, Tanzania and Zambia. This value-chain is concentrated in SA where the auto assembly plants are below world scale (50k vehicles v/s ~1M per annum) (OECD, 2017). The impact of COVID-19 took 29% off production; as a total of 631 921 and 447 218 units were produced in SA 2019 and 2020 respectively (IOICA, 2020).

71. The SA carmakers source around 45-55% of components locally, primarily from large international component suppliers, but the lack of scale prevents many first-tier component suppliers from locating in the region. Local linkages are limited and only SA has some domestically owned Tier 1 suppliers, which produce around 50% of auto parts and components (OECD, 2017). With the exception of SA, SADC and SSA more broadly, remain extremely reliant on imports of old cars. The limited assembly operations are small-scale (semi-knocked down: SKD) assembly, with minimal to no local content (Barnes, et al., 2021). In 2019 imports accounted for 55% of SA’s light vehicle sales and 61% of output was exported, to the EU (64%) and Africa (16%; 84.3% to SADC).

¹⁸ Using SADC FTA RoO (Rules of Origin) to determine national (local) content

¹⁹ The only “losers” would be current overseas imports of these goods (mainly OECD states).

72. The market for vehicles in SSA, though currently small, is growing very rapidly. It is currently met by imports, especially of used vehicles. SSA will become a significant global market over the next decade (Black, et al., 2017) which could be an opportunity to manufacture “green” vehicles (EV, FC) given the RE potential. Growth constraints to be overcome are weak manufacturing capabilities and the high cost of trade diversion, due to the ubiquitous low-priced imports of second-hand cars in most Southern African markets (Markowitz, 2019).

73. Regional integration is essential to achieve the scale for viable auto value-chain development. Indonesia, Thailand and Malaysia are successful examples of developing countries building world scale auto industries through regional integration. SA’s extended Automotive Production and Development Programme (APDP2) and Automotive Investment Scheme (AIS) are industrial policy instruments upon which to possibly build a (green) regional auto value-chain strategy.

74. The APDP2 incentivises firms to increase local production and value addition to build their capability and production scale while moving up the value-chain. These elements can be used to offset import tariffs on vehicles and components. The AIS is a grant for qualifying investments into productive assets for OEMs and component manufacturers to increase production. In tandem these instruments facilitate entry into value-chains, incentivise firms upgrade links at every level in the automotive value-chain to be able to compete in regional and global markets.

75. It is recommended that consideration be given to configuring a regional automotive development scheme (along the lines of the APDP2 and AIS), that incorporates well-crafted targeted support for the automotive energy transition (ICE²⁰ to RE: EV, FC, hybrid), in both the APDP and the AIS equivalents, that can benefit from international “green” funding and that also develops the regional RE commodity value-chains (PV, CSP, wind, hydro, storage)²¹ operating under a CET for automobiles and components (to cater for the tariffs offset mechanism). But this is unlikely to fly without funding for poorer Member States to be able to participate in a regional AIS (investment grants). This could possibly be sourced from the auto import duties pool (CET), not offset under a regional APDP.

76. However, a regional APDP assumes that Member Countries will be able to wean themselves off the current reliance on imports of discarded vehicles from Developed Countries, which is likely to be politically difficult²².

5.5. KRVC 5: Renewables (wind, solar, hydro) and storage KRVCs

77. Africa’s population, growing at a rate of at over 2% is higher and younger than the rest of the world. The continent and the Southern African region are urbanising rapidly. These conditions create challenges and opportunities for Southern African countries to improve energy access along with employment while also meeting national climate change goals. Africa is home to a fifth of the world’s population, yet the global share of electricity demand for all African countries is just over 3%, of which South Africa accounts for 40%.

78. The progressive combination of new technology in energy systems is displacing centralised infrastructure dependent on fossil fuels with new forms of energy generation storage and distribution. Embedded generation at the point of consumption, regional energy trading, energy storage to ensure Variable RE (VRE) security of supply and low-cost options for energising low-income households far

²⁰ ICE: Internal Combustion Engine

²¹ Li, Co, Res (Rare Earths), Zn, Si, PGMs, V, et al.

²² Cheap used cars have become an accepted “right” in many Member States, despite the downsides of high after market import costs, greater liquid fuel imports, environmentally unfriendly old models and the increased costs of road infrastructure to handle the congestion.

from electricity transmission grids make achieving energy access for the 52% of Southern African households without power an achievable goal.

79. Southern Africa's renewable energy potential is highest in biomass, biofuels, solar, wind and large and small-scale hydroelectric. Energy storage options include pumped storage and utility plus household scale battery storage. The region is exceptionally well endowed with VRE potential: solar PV generation theoretical potential is estimated at 160,000 TWh per year. Wind across Africa has the potential to produce 460,000 TWh per year (IEA, 2019).

80. The region has the capacity to meet its own needs and even export energy, but if renewable energy value chains are not effectively localised, then jobs and economic development to a low carbon future will be forfeited. In 2015 it was estimated that up to 70% of this value is captured by foreign investors and companies (Mutanga, et al., 2015) where local capacity is lacking and where it's not made a policy priority.

81. Trade in RE components comprising towers, wind turbines, inverters, batteries, control cabinets, solar panels, and charge controllers shows a significant import dependence with China being the principal source of imports. Annual imports are between 100 and 130 M US\$. A regional strategy for scaling up production for local supply and Africa requires visibility on the market size and enabling policies for RE development, to provide investors with confidence to expand capacity, as well as a regional supply-chain capabilities upgrading strategy (skills, manufacturing, services) and the mobilisation of "green" funding (DFI's, development partners and commercial lenders).

6. Conclusions and Recommendations

82. Southern Africa has a significant comparative advantage for the production of both mineral and agricultural commodities which could be leveraged to Build Back Better the numerous commodity value-chains by developing the backward, forward and knowledge linkages. Further, Southern African states need to make access to national resources for commodity production (e.g., minerals, land, water) dependent on developing the value-chains (linkages) as well as using other state rights (authorisations) to facilitate linkages development, manufacturing and industrialisation. Additionally, Southern African states should Build Back Better by using state purchasing power to enhance localisation (local content and indigenisation). These "levers" need to be used in tandem with creating a conducive environment for value-chain development though access to affordable capital and utilities, lower logistics costs, trade facilitation, etc.

83. Such a commodities-based industrialisation strategy should be undertaken at a regional level to access a more diverse range of commodities (industrial feedstocks), a much larger market (economies-of-scale), through the building of regional commodity value-chains. This would create the scale for regional industries to competitively replace imported products (on price and service) and expand into global markets. The development of regional value-chains will require the reciprocal recognition of backward linkages (local content), forward linkages (intermediates) and knowledge linkages (skilling and RDI), by participating Member States. Regional commodity value-chain development will also require seamless intra-regional trade in the commodity value-chain products behind CETs and MSME support along the value-chains.

84. In the Key Regional Value-Chain sections of this report, sector specific Regional Strategies are proposed that have the following elements in common:

- A CET for the selected value-chain up- and downstream linkages products. The excise duties could be used to part fund the investment funds (VCF) required for new value-chain investments in less developed Member States, as per the SADC RMV.

- A Regional Development Fund with a VCF, biased towards the less developed Member States (funding at the inverse of GDP/capita), that would proportionally fund investment project PFSs, debt and VCF equity participation.
- A Regional Infrastructure Fund targeting critical connecting infrastructure (road, rail, bridges, power, telecoms, water and gas) by raising capital from commercial banks, DFIs and green financing facilities. This would blend finances and provide different levels of risk to match institutional mandates for least cost finance at scale. This would enable more equitable infrastructure costs to participate in the regional value-chain opportunities.
- Infant industry protection within the CET for less developed Member States to apply moderate time-limited tariffs on new value-chain investments that may struggle to compete with amortised investments elsewhere in the region.
- Indigenisation of the value-chains (development of local capital) through firm-centric strategies for regional indigenous firms to thrive in a supportive policy environment in competition with incumbent market leaders.

85. If there is indeed an appetite to pursue a regional commodity-based industrialisation strategy, drawing upon the enormous natural comparative advantages the region possesses, as per the 2013 UNECA ERA²³ and the 2018 SADC RMV, then it would appear to be simpler to consolidate the discrete regional commodity value-chain strategies into a single regional commodity-based industrialisation strategy (rather than separate strategies for each commodity value-chain). Such a regional strategy would prioritise the key requisite commodity feedstocks into local/regional manufacturing and industrialisation, rather than commodities exported into global value-chains. In this proposal, the automotive value-chain would constitute a separate regional value-chain strategy, albeit the endpoint of several regional commodity value-chains (e.g., steel, polymers, base metals). Likewise, the renewable energy (RE) supply-chain would need to be a separate regional strategy.

86. Accordingly, it is recommended that consideration be given to developing the following three complimentary Build Back Better strategies:

- 1) A Southern African (SADC) commodity-based industrialisation strategy that builds on the AMV, the SADC RMV and the UNECA “Making the Most of Africa’s Commodities” (UNECA, 2013).
- 2) A Southern African (SADC) automotive strategy based on the APDP and AIS (SA), incorporating the vehicular energy transition (automotive is the culmination of several regional commodity value-chains).
- 3) A Southern African (SADC) renewable energy (RE) localisation strategy (backward linkages development, also the endpoint of several regional commodity value-chains).

87. However, given that, in the short-term, the region is unlikely to agree on and resource these strategies for Building Back Better through commodity-based industrialisation, manufacturing and regional value-chains, individual Member States could start fleshing out and developing these strategies nationally and with other like-minded Member States.

88. Given that five Member States are already part of a customs union with a CET (the SACU²⁴), it may be possible to start with these States as a pilot and to enlarge it into a wider regional BBB strategy as other Member States see the palpable benefits.

²³ ERA: Economic Report on Africa

²⁴ SACU: Southern African Customs Union (Botswana, eSwatini, Lesotho, Namibia and SA)