

## **WHITE PAPER ON RURAL INDUSTRIALISATION IN AFRICA**

*Tapping resources, strengthening resilience,  
curbing the causes of migration - as equal  
partners at eye level.*

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## 2 Preface

This document was originally drafted in German, specifically designed as a comprehensive proposal targeting key decision-makers within the German federal government and industrial sectors. The German-language original allowed for precise communication of technical and policy-specific terminology relevant to domestic stakeholders.

It has subsequently been translated into English to facilitate comprehension by a broader international audience, enabling multinational collaboration and feedback while maintaining the integrity of the original content and intent. The translation preserves the document's strategic objectives and detailed proposals while making them accessible to non-German-speaking experts and interested parties.

### 3 Summary

The industrialisation of rural areas in Africa is creating a unique opportunity for German industries to diversify and strengthen their supply chains. Many African countries, supported by development banks, have established the groundwork for nationwide rural electrification—largely driven by the private sector and based on renewable off-grid energy solutions. With access to reliable electricity and expanding internet coverage, it is now possible to process natural resources directly at the source. This local processing reduces the weight and volume of transported goods, improves product quality, and can significantly extend shelf life, making supply chains more efficient and sustainable.

This makes rural African products competitive on the global market. German companies, particularly German SMEs, are well placed to tap into these opportunities. This also enables the companies to gain more control over those elements of their supply chains that have come or are yet to come under pressure due to geopolitical shifts.

Rural industrialisation focuses on a new dimension of economic engagement by German companies in politically stable regions of Africa with the support of the German state, and represents an economic potential of EUR 71.5 billion per year. Germany should align its international cooperation efforts more closely with the strategic economic interests of its domestic industries, and Africa's rural industrialisation provides a suitable framework for this. By strengthening economic links between Germany and Africa, it may even be possible to push back the geopolitical influence of Russia and China in Africa.

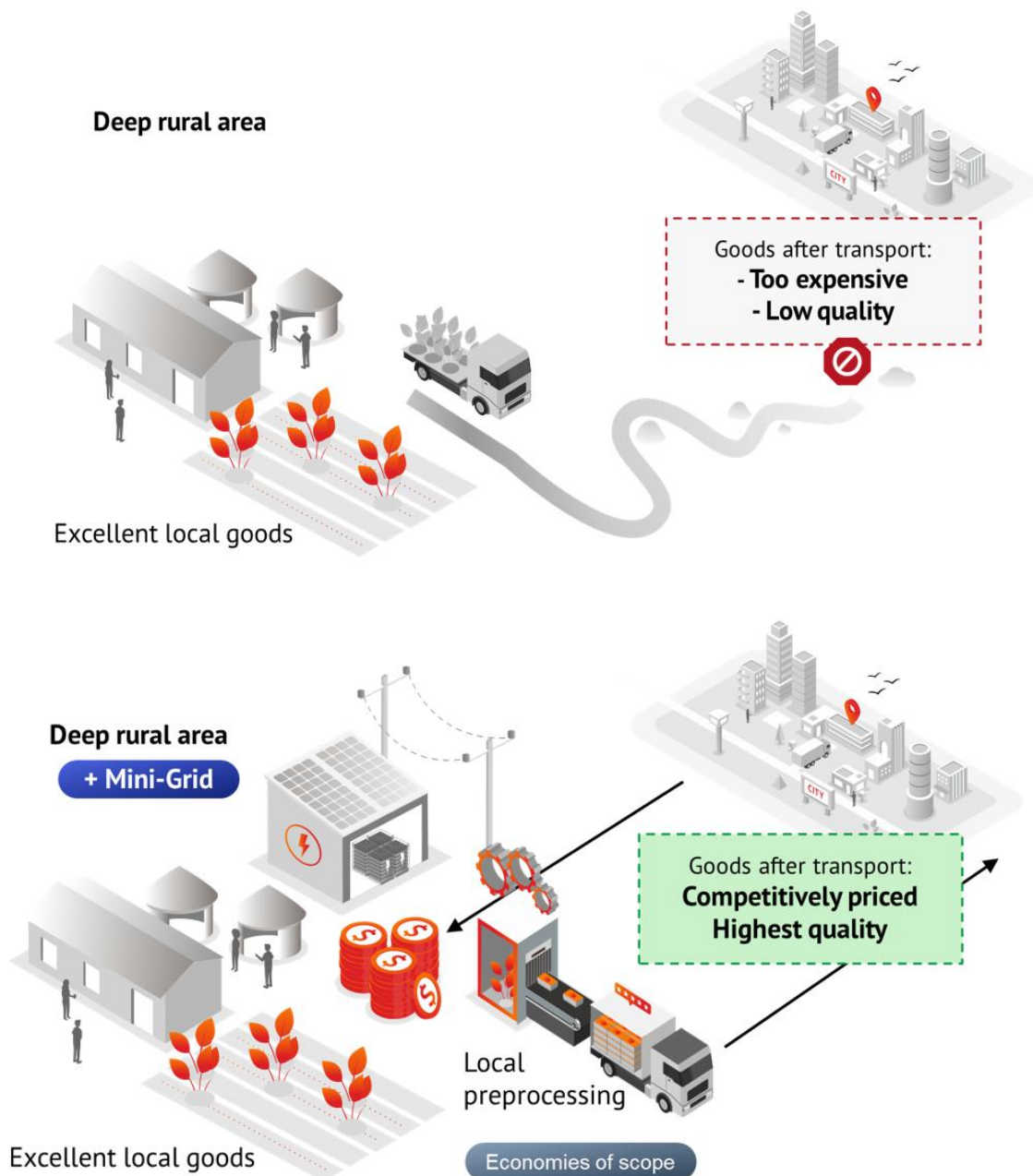
**Economic progress, strong resilience to climate change and fewer reasons for migration.** Rural industrialisation refers to the targeted development and promotion of production and processing structures in rural areas. This involves the construction of factories in rural areas of Africa and the systematic linkage of agriculture, livestock farming and mining with renewable energy supply, aided by existing decentralised energy supply companies and digital infrastructure. In contrast to urban-centric industrialisation models, rural industrialisation relies on using easily accessible, affordable and high-quality local resources. This creates climate-resilient jobs, helps to reduce poverty, rural exodus and migration and contributes to the long-term economic stabilisation of regions that have often been marginalised to date.



**An alternative to imperialist approaches.** The rural industrialisation presented here is a sustainable and partnership-based cooperation model between Germany and African countries, a counter-design to the current strategies of some major powers on the continent. While China, Russia and, more recently, the USA are primarily focusing on power-political instruments to secure African natural resources for their economies, Germany can take a collaborative approach on an equal footing by promoting rural industrialisation.

**When is the optimal time for the German economy to engage in rural industrialisation?** That time is now. Decentralised energy suppliers are ready to provide reliable renewable energy in rural Africa. Un-utilised resources are not finding their way onto the world market, and this gap can be filled by German importers, technology, logistics and IT.

**Political framework conditions and support measures.** For rural industrialisation to develop to its full potential, targeted political measures are required. African governments can support rural industrialisation through tax incentives, simplified approval procedures and the expansion of rural transport infrastructure. This can be realised as an addition to the rural electrification programmes that have already been initiated.



*Figure 1. Decentralised pre-processing in cooperation with micro utilities makes raw materials competitive*

**The Federal Republic of Germany** can support German companies that import products from rural Africa with low-interest, long-term loans for rural industrialisation in Africa, provide support services to African countries, offer German investors guarantees against political risks and use its well-established international network to establish contacts between economic players.

- The [KfW/DEG](#) can set up a window with particularly advantageous funding conditions for German companies with projects for rural industrialisation in Africa, e.g. under the programme [ImpactConnect](#) or [DeveloPPP](#), as well as [AfricaGrow](#) (Alliance).
- [GIZ](#) can support African countries in shaping political and legal frameworks.
- The Federal Ministry of Economics can issue specialised federal investment guarantees for rural industrialisation.
- The Sub-Saharan Africa Initiative [SAFRI](#) and the German Chambers of Commerce ([AHKs](#)) can be a contact centre for partnerships between German and African companies.

All of this should be coordinated by a central body, such as the Ministry of Economics, the Ministry of Foreign Affairs or the Ministry for International Cooperation.

### Is rural industrialisation in Africa economically advantageous for German companies?

Excellent products from rural Africa often do not find their way onto the national or global market. By the time they reach consumers, they are either too expensive or, in the case of perishable goods, past their shelf life. The reason for this can often be found in the transport of small quantities of raw materials over many hundreds of kilometres of poor roads.

Decentralised processing of raw materials at the place of extraction into durable and easy-to-transport primary products can drastically reduce transport costs and ensure that high quality products reach the customer. As decentralised energy companies supply load centres in rural Africa with electricity using renewable energies, and internet access is available via mobile communications or satellite, many processes relating to the manufacture of primary products can be digitalised. The monitoring and management of processes, including all payment flows via mobile money, can be centralised accordingly.

When natural resources and labour are more affordable in rural Africa and product quality exceeds that of manufacturing near export hubs, significant value chain margins can be realized by producing directly in rural areas. This can be further leveraged through synergies with the decentralised energy supplier, e.g. by sharing qualified employees and means of transport, land, protection, internet use, etc.

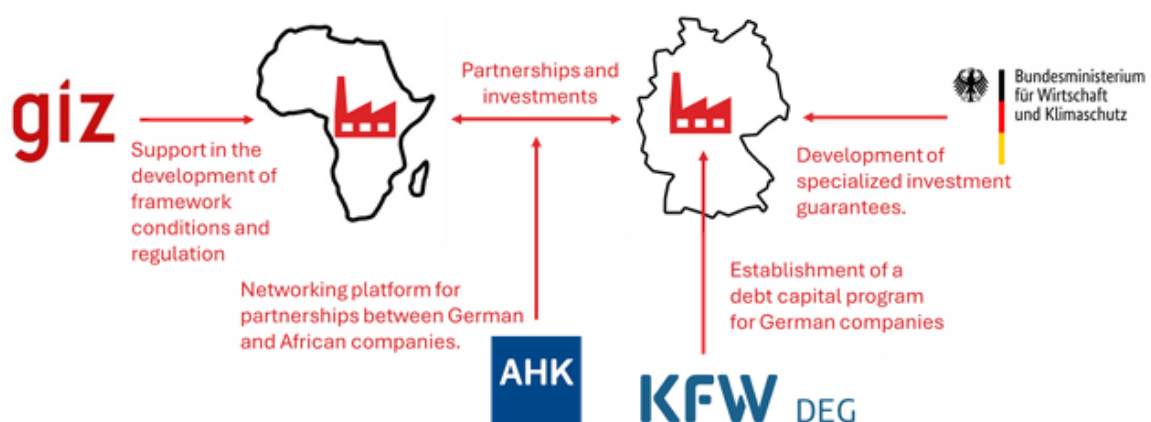


Figure 2. Possible measures by various German stakeholders to promote rural industrialisation



## 4 Rural industrialisation in Africa - a multi-billion EUR opportunity for the German economy

Africa stands at a pivotal moment to accelerate rural industrialisation and bolster economic resilience in remote regions. Over the past decade, shifts in regulatory frameworks and targeted development support have enabled the emergence of micro utilities—decentralised energy providers that harness renewable sources like solar power to deliver reliable electricity to rural communities across the continent. Today, micro utilities are active in nearly every African country, operating mini-grids that are specifically designed to meet the energy needs of rural populations. Beyond electricity provision, these operators bring valuable expertise in rural logistics and digital infrastructure, employing technologies such as remote monitoring, mobile money for payments, and managing dedicated land areas. These sites offer not only energy generation capabilities but also space for local value addition through the industrial pre-processing of raw materials.

**Relevance of cooperation between micro utilities and industry.** The manufacturing industry needs a reliable and powerful power supply wherever factories are built. Micro utilities provide this supply. Conversely, micro utilities need a stable demand for electricity for sustainable operation, which can be created by rural industrialisation. Industrial companies that want to relocate production processes closer to the origin of their raw materials often face challenges, including weak infrastructure, complex logistics and high risks when working with local players. Cooperation with micro utilities can overcome these obstacles by providing not only energy, but also local expertise, rural infrastructure and networks.

**Positive framework conditions for micro utilities.** Energy legislation and regulation for micro utilities have been established in numerous African countries in recent years, meaning that micro utilities now have a reliable framework for long-term, reliable electricity supply.<sup>1</sup> The introduction of a clear regulatory framework, technical standards and tax incentives enables these models to be scaled up and promotes the integration of industrial processes into existing micro-utility structures.

**Urgency of implementation.** Efficient micro utilities have been set up in almost all African countries in recent years. However, if rural industrialisation is not introduced soon, these micro utilities could disappear again due to a lack of profitability, which would jeopardise the economic potential of rural areas. This window of opportunity for rural industrialisation in Africa is therefore unique. It offers a short-term chance to build sustainable structures and stable value chains in Africa's rural areas. At the same time, the supply of energy to rural areas is essential. In the words of Kenyan President William Ruto, who spoke about the Last Mile Connectivity Project, which promotes electricity supply in rural areas: "Power connectivity is a vital priority because electricity is the lifeblood of modern economies. The Last Mile Connectivity Project has enabled businesses in rural areas to flourish, contributing significantly to our GDP and creating numerous job opportunities. It has also revolutionised our agricultural sector, powering irrigation systems and agro-processing units, thereby boosting productivity and ensuring food security."<sup>2</sup>

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<sup>1</sup> "State of the Global Mini-Grids Market 2024". Mini-Grid Partnership

<sup>2</sup> Ruto, W. "Statement by His Excellency William Ruto [...] during the contract signing of the Last Mile Connectivity Project", 2024. State House, Nairobi

**The opportunity.** German importers can make use of this opportunity to secure rural African resources and, at the same time, help German mechanical engineering companies to tap into African sales markets. Africa has more than EUR 40 trillion in mineral resources<sup>3</sup>, including critical minerals that are becoming essential for the development of AI, digitalisation and e-mobility. The Democratic Republic of Congo holds the largest known reserves of cobalt in the world. Up to 90 % of global platinum deposits are found in Africa, and 40 % of the world's chromite reserves.<sup>4</sup>

These reserves are located in rural Africa and are often extracted using semi-industrialised processes. Rural industrialisation can secure access to these resources and reserves for German companies. Currently, only just over 2% of all imports to Germany come from Africa. This corresponds to goods worth EUR 32 billion per year.<sup>5</sup>

Currently, only 4% of the raw materials used for electric motors originate from Africa, while 65% come from China.<sup>6</sup> China aims to become climate-neutral by 2060 and requires increasing amounts of critical raw materials for its own industries. This means that China will reduce raw material exports in the medium term to satisfy growing domestic demand. Consequently, German industry's dependence on China should be reduced.

At the same time, Africa presents significant opportunities. In 2022, the Sub-Saharan African region exported goods valued at approximately USD 396.9 billion worldwide.<sup>7</sup> The continent is estimated to hold around 30% of the world's mineral reserves. However, Germany has yet to fully tap into this vast potential. There are three areas in which Germany can reduce its dependence on China and, at the same time, establish long-term supply chains in Africa:

1. According to the Federal Statistical Office, Germany imported goods worth almost EUR 156 billion from China in 2024, including many raw materials and intermediate products. China is therefore currently Germany's largest import partner by far. A share of **EUR 9 billion** of these imports could be covered by African suppliers in the future, provided that Africa's rural industrialisation and corresponding supply chains are further strengthened. This includes mineral and metallic primary products (including rare earths) with a value of EUR 7 billion<sup>8</sup>, as well as food and related items with a value of EUR 2 billion.<sup>9</sup>
2. Up to **EUR 10 billion** worth of food lost in Africa due to inadequate markets and post-harvest losses could be transformed into high-quality and valuable products through pre-processing.<sup>10</sup> The FAO estimates that up to 47% of the USD 940 billion that will need to be invested by 2050 to eradicate hunger in Sub-Saharan Africa will be needed in the post-harvest sector. This investment should cover cold and dry storage, rural roads, facilities for rural and wholesale markets and the first stage of processing.<sup>11</sup>
3. Organic growth in trade with Africa over the next 10 years could lead to a further EUR 20 billion in trade in goods.<sup>12</sup> Half of this value, i.e. around **EUR 10 billion**, could be realised through value creation in rural areas.

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<sup>3</sup> "African mineral resources are worth 46,200 billion dollars", Agenzia Fides, 10/2009

<sup>4</sup> "The Marshall Plan with Africa in implementation", BMZ, 2020

<sup>5</sup> "German foreign trade with Africa will decline in 2024", Africa Business

<sup>6</sup> "Dependence of German companies on raw material imports", German Bundestag, 10/2022

<sup>7</sup> World Integrated Trade Solution, Trade Summary for Sub-Saharan Africa, 2022

<sup>8</sup> Assumption that the majority of current mineral imports from China could be covered by Africa; calculation based on Destatis, "Aus- und Einfuhr (Außenhandel): Germany, years, countries, commodity classification"

<sup>9</sup> Assumption that the majority of current agricultural imports from China could be covered by Africa; calculation based on the statistics "Foreign trade with China", Federal Ministry of Food and Agriculture, 2023

<sup>10</sup> Calculation based on Food Policy, "Food loss and waste in Sub-Saharan Africa", 2017

<sup>11</sup> "FAO/World Bank workshop on reducing post-harvest losses in grain supply chains in Africa", 2010

<sup>12</sup> Assumption that trade in goods with Africa will increase by approx. 5% annually



If the pre-processed raw materials reach Germany, the German industry can increase the value of these products by a further 50-500% through further processing. This results in a total sales potential of at least **EUR 43.5 billion** for products based on imports from Africa through rural industrialisation.

Specific examples of supply chains that would benefit from an investment in rural industrialisation are:

### **Agricultural products and food**

- **Cocoa production:** Africa is the largest producer of cocoa (particularly Côte d'Ivoire, Ghana and Nigeria), but processing often takes place in Europe or Asia. The government of Côte d'Ivoire, the world's largest cocoa producer, wants to increase local processing to 50% to create more value locally.<sup>13</sup> The local processing of cocoa into chocolate or cocoa powder in Africa offers the opportunity to achieve better prices for the goods produced through higher quality. This means that German companies that invest directly in local processing can achieve higher margins on the sale of cocoa-based products.
- **Cashew nuts and other nuts:** Africa is an important producer of nuts, particularly West African countries. However, most nuts, such as cashews, are exported unroasted, with processing steps like roasting and packaging typically carried out in Asia or Europe. Investing in local processing and packaging enhances the freshness and quality of roasted cashews, allowing them to be sold at higher margins while capturing more value within the region.
- **Fruit juices and tropical fruits:** Africa produces a variety of tropical fruits, including mangoes, pineapples, papayas, and bananas, that can be exported as fruit juice, frozen, dried, or freeze-dried products. Processing these fruits at the source allows them to fully ripen on the tree, significantly enhancing their quality. Local processing also lowers transport costs, resulting in reduced expenses and increased income due to the superior quality of the products.
- **Oil fruits (e.g., palm oil, peanuts):** These products can be pressed at the place of cultivation instead of being exported as raw materials, reducing transport costs. Press cake can be used locally as animal feed or fertiliser, e.g., for organic farming, and palm oil can be further processed in Germany into cosmetics and food products.
- **Spices and herbs:** Spices and herbs are needed in the food and cosmetics industry. The earlier spices and herbs are dried or the flavour extracted, the higher the quality. In many cases, this is best done directly after harvesting at the place of cultivation.

### **Raw materials and metals**

- **Cobalt, manganese, graphite, nickel and rare earths:** These metals, which play a key role in batteries and electronics, are largely mined in Africa, but local processing is often inadequate. The expansion of pre-processing facilities on site could reduce the overall costs of production. The Democratic Republic of Congo alone holds around 48% of the world's cobalt reserves. Large quantities of manganese are mined in South Africa, Ghana, and Mozambique, while graphite extraction is concentrated mainly in Madagascar and Tanzania. Significant nickel deposits are found in both Madagascar and the Democratic Republic of Congo.
- **Bauxite (for aluminium):** Bauxite, the most important raw material for aluminium, has significant deposits in Guinea and Mozambique. The crushing and removal of impurities (e.g. removal of silicates and iron) significantly reduces the volume of bauxite, which makes it easier to transport. Bauxite is an ore for which pre-processing requires relatively small amounts of electricity and can be easily operated with energy from micro utilities.

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<sup>13</sup> Information according to Africa Business Guide

Rural industrialisation simultaneously opens up export opportunities for German companies. In 2023, Germany supplied food processing and packaging machinery worth EUR 405.5 million to Africa, with a total value of machinery and equipment worth EUR 4.5 billion.<sup>14</sup> Additionally, exports to Africa only account for around 2% of all German exports in the machinery and plant engineering sector, but are increasing by more than 10% annually.<sup>15</sup> Through the realisation of rural industrialisation, it would be possible to increase the annual export growth of machinery and equipment to a total of 20%, which would lead to an annual export volume of machinery and equipment of almost **EUR 28 billion** within the next ten years.



*Figure 3. Food processing in an African snack factory*

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<sup>14</sup> Information according to Africa Business Guide

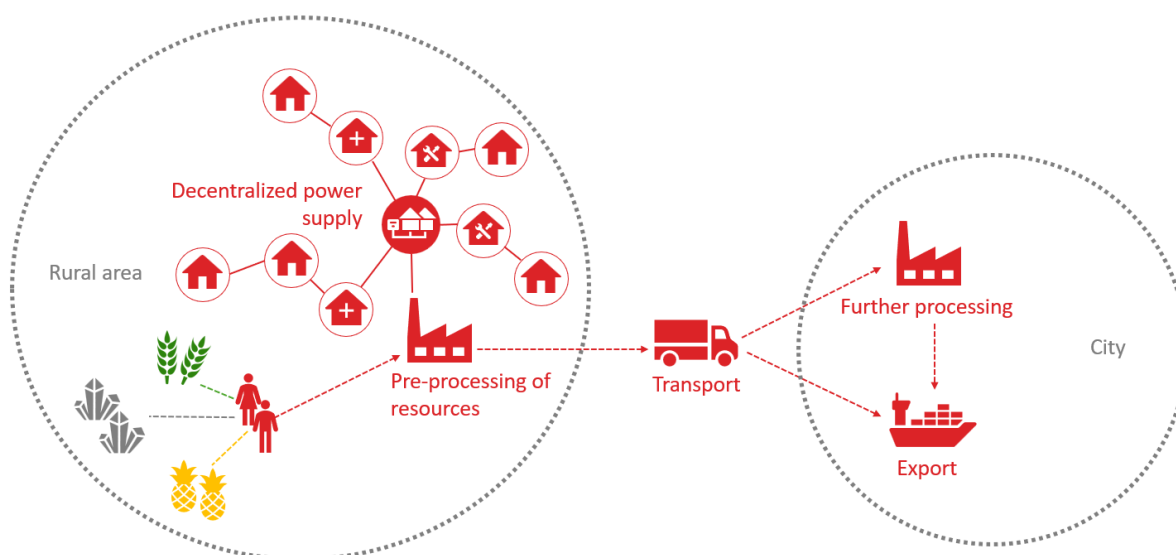
<sup>15</sup> Information according to the Africa Business Guide

## 5 Rural industrialisation is the key to economic resilience and curbing causes of displacement

Rural industrialisation in Africa is increasingly recognised as a key factor for increasing economic resilience to the consequences of climate change. Rural industrialisation makes it possible for raw materials to be processed directly on site, thus creating added value locally. This creates reliable, fairly compensated jobs in rural areas. Through the targeted promotion of rural industrialisation, African countries can reduce dependence on raw material exports, and at the same time improve the livelihoods of millions of people. This not only has positive consequences for the local economy in rural Africa, but also provides the population with an opportunity to benefit from the economic upturn.

**Africa's high potential for rural industrialisation.** Africa has a variety of sectors that can benefit from rural industrialisation, including agriculture, mining, forestry, meat and fisheries. In the agricultural sector, for example, local processing - such as the pressing of oil crops or the mechanical drying of spices - can lead to the production of value-added products that have a higher shelf life and marketability. The fishing industry benefits when fishing operations are supplemented by local processing facilities that prepare products for shipment to urban centres, thereby improving quality and shelf life. Ores can be separated from the surrounding rock on-site to reduce transport costs.

**Advantages of decentralised pre-production.** The key to rural industrialisation lies in the economic efficiency of decentralised pre-production. Decentralised processing reduces transport costs, as processed products such as cooking oil or meat have a lower volume and weight than the raw materials. This reduces transport costs over poorly developed roads and makes production more profitable. Processed products also have a longer shelf life and are easier to transport, which enables significant cost savings in regions with poor infrastructure. Resources that would otherwise not be used can be further processed.



*Figure 4. Schematic representation of rural industrialisation*

**Existing initiatives underline the impact of rural industrialisation.** The African Development Bank's Special Agro-Industrial Processing Zones (SAPZs) initiative, for example, aims to transform rural areas into centres of economic activity by providing integrated infrastructure and services. These zones help to reduce production and transport costs and, at the same time, promote value creation in local agriculture.<sup>16</sup> Nigerian President Tinubu already announced during his inauguration speech: "Agricultural centres will be created throughout the country to increase production and carry out value-added processing."

### Why not simply promote industrialisation in cities?

At first glance, promoting industrialisation in cities offers numerous advantages. Cities already have good infrastructure, existing transport and logistics networks and a high concentration of people, which facilitates access to skilled labour. Industrial production can therefore be started efficiently and with little investment in basic structures.

However, there are also considerable disadvantages to the industrialisation of urban areas. It can lead to an increased rural exodus, exacerbating challenges in rural and urban areas, such as food supply issues, housing shortages, traffic problems and environmental pollution. Additionally, the cost of land, labour and energy is often higher in cities than in rural areas, which can affect competitiveness in the long term. Raw materials from rural areas often do not even reach cities, as the costs and volumes of transport from rural areas are too high. According to the Food and Agriculture Organisation (FAO) of the United Nations, 30% of food produced for human consumption is lost or wasted along the supply chain every year. In Africa, losses are even higher, ranging between 30 and 50 per cent. In addition, many raw materials lose a great deal of quality during transport without being pre-processed at the place of origin.

Pre-processing in rural areas prevents these difficulties and also reduces transport costs and volumes. Rural industrialisation creates jobs in structurally weak areas and contributes to economic diversification. It reduces the pressure on urban infrastructures and can contribute to more stable overall economic development. Direct access to high-quality, fresh produce, renewable energy and lower operating costs in rural areas is a key advantage of rural industrialisation, especially in times of rising global production costs.

<sup>16</sup> African Development Bank Group. (2021). *Development Perspectives on Special Agro-Industrial Processing Zones (SAPZ) in Africa: Lessons from Experiences*.

**Positive effects of rural industrialisation.** Rural industrialisation contributes significantly to income security and economic stability for the rural population, which protects them against climatic and economic shocks. Stable incomes enable families to invest in precautionary measures, such as building resilient housing or building up financial reserves. This creates a basis that allows households to secure basic needs such as food, water and education in times of crisis. Rural industrialisation is therefore a key to Africa's economic resilience and independence. By establishing stable local processing structures, local communities and the continent benefit from sustainable growth in the long term. Raw material deposits can be utilised efficiently and sustainably, and the livelihoods of the population can be improved.

### What are mini-grids?

Mini grids are decentralised power supply systems that are used in remote or rural areas to generate and distribute electrical energy in the power range from 10 kW to 50 MW. They usually consist of an energy source (such as photovoltaic systems, wind turbines or hydroelectric power plants in combination with battery storage or diesel generators) and a distribution grid that supplies the generated energy to households and businesses in the surrounding area. Mini-grids are designed to operate independently of the centralised power grid, providing a reliable power supply in areas without a connection to the public grid or with low grid availability. Privately implemented mini-grids are operated by so-called micro utilities (decentralised energy supply companies).

The advantages of mini-grids lie in their flexibility, cost efficiency and sustainability. They can be installed quickly and adapted to local needs, making them an efficient solution for energy poverty in remote regions. Solar mini-grids in particular are gaining in importance as they utilise the benefits of the abundant solar energy available in most African countries. In this way, they protect the environment while increasing energy accessibility and providing a basis for economic development.

### Pre-processing in rural areas with a mini-grid is more cost-effective than other options

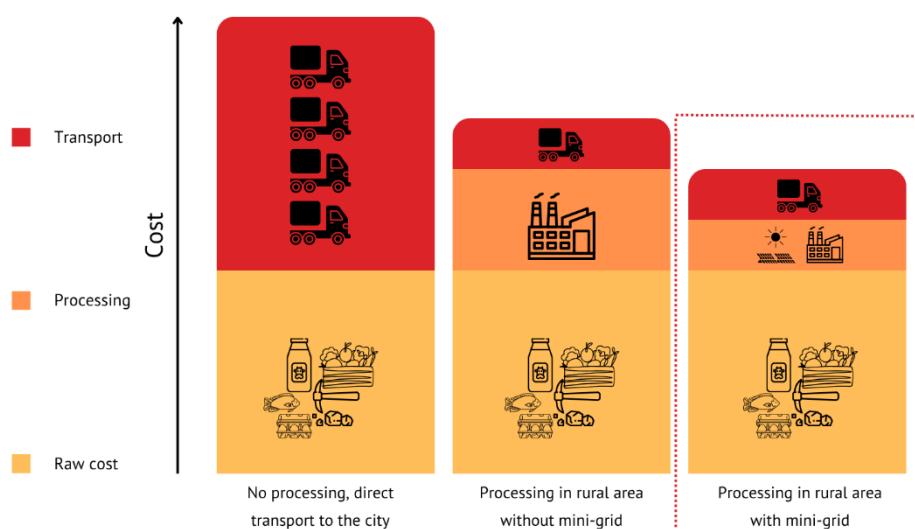
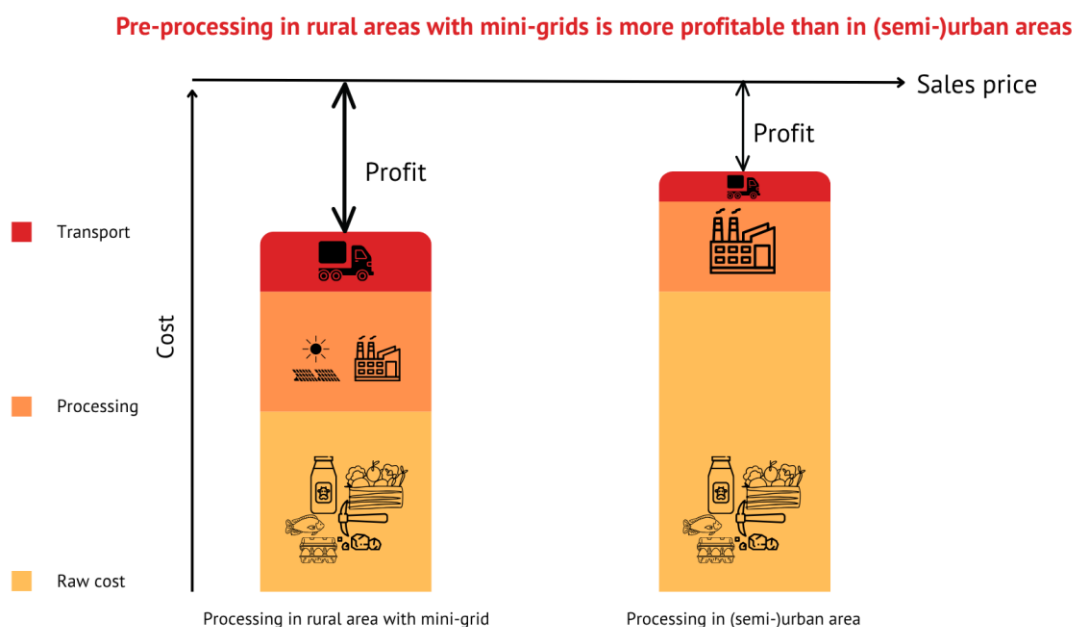


Figure 5. Comparison of the costs of a product without pre-processing with pre-processing in rural areas and with pre-processing in rural areas when using a mini-grid

The advantages of product pre-processing in rural areas with mini-grids lie both in the cost reduction compared to other options, and in the increase in profit. Without pre-processing, raw materials produced in rural areas are too bulky and heavy to be transported to cities. Local pre-processing can significantly reduce transport costs. If this pre-processing can also take advantage of economies of scope that are possible in combination with a mini-grid, such as the shared use of labour or lower electricity costs, pre-processing with a mini-grid is the most cost-effective option.



*Figure 6. Comparison of the possible profit margins of rural pre-processing with urban pre-processing*

Pre-processing in rural areas also offers economic advantages compared to product pre-processing in urban areas: Raw material costs are much lower in rural areas than in urban areas, as the majority of transport costs are saved. These cost savings are much more significant than possible savings from processing in urban areas due to larger machines or more favourable electricity costs. Ultimately, a company that produces in rural areas earns a higher margin than a company in the same sector that produces in urban areas.



## 6 The competition for securing resources has begun - can Germany play to its strengths?

In recent decades, Russia, China and the USA have intensified their geopolitical strategies in Africa, with each of these nations pursuing different approaches. Their involvement ranges from economic investments and security policy cooperation to diplomatic or military influence.

**US strategy: security and economic competition.** US policies in Africa are being reorganised under the Trump administration. The African Growth and Opportunity Act (AGOA), which grants African countries duty-free access to the US market, is facing uncertainties. So far, no concrete steps have been taken to extend the AGOA, which is currently due to expire in September 2025. In turn, the Trump administration is expected to target commodity deals with African nations. The Trump administration is pursuing a more protectionist approach. In January 2025, Trump also issued an executive order suspending nearly all US foreign aid programmes, initially for 90 days, with a possible permanent halt to most of these programmes. This led to significant disruptions to vital programmes. "Power Africa", which aimed to expand access to electricity in Africa, was cancelled. At the same time, the US has stepped up its military operations in Africa, particularly in the Horn of Africa, to combat terrorist groups.

**China's strategy: infrastructure and economic dependencies.** China is pursuing a long-term economic strategy in Africa, which is primarily characterised by infrastructure projects, loans and trade relations. As part of the "Belt and Road Initiative", China is financing numerous major projects, including roads, railways and harbours.<sup>17</sup> Although these investments create urgently needed infrastructure, they often lead to African countries becoming heavily indebted to China, which critics describe as a form of "debt diplomacy".<sup>18</sup> At the same time, China secures long-term supply contracts for African raw materials to supply its own industry.

**Russia's strategy: security.** Russia is primarily pursuing a strategy focused on security in Africa. The country is an important supplier of weapons and military training, particularly in countries with unstable political conditions such as the Central African Republic and Mali. Russia has expanded its influence through private military companies such as the Wagner Group.<sup>19</sup> Russia also relies, sometimes with great success, on bilateral security agreements to secure its geopolitical interests.<sup>20</sup>

**Germany's opportunity to build sustainable win-win partnerships.** Russia, China and the USA are each pursuing their own strategic interests in Africa, some of which are in competition with each other. Germany has the opportunity to position itself as a reliable and fair partner that promotes sustainable win-win cooperation. In contrast to the strategies of China, Russia and the USA, Germany can focus on partnership-based development based on fair trade relations, technology exchange and targeted investments. This strategy would not only help to stabilise political relations, but also create long-term economic benefits for both sides. In addition, Germany can build trust through transparent and sustainable economic models and contribute to the development of resilient structures that enable African countries towards a self-determined economic future.

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<sup>17</sup> Wallace, J. and Dr Jie, Y. (2022). "What is China's Belt and Road Initiative (BRI)?" Chatham House

<sup>18</sup> Omar Osman, F. (2021). "China's Debt Trap Diplomacy in Africa". Faculty of Political and Social Sciences, Ghent University

<sup>19</sup> Weir, F. (2023). "Isolated from West, Russia looks to Africa as land of opportunity". The Christian Science Monitor.

<sup>20</sup> Reva, D. (2024). "Russia's growing influence in Africa calls for more balanced partnerships". Institute for Security Studies

## 7 Political measures to promote rural industrialisation

To successfully implement rural industrialisation in Africa, targeted political measures are required that make investments in rural production structures economically attractive and strengthen the regional economy in the long term. African governments play a central role here. They create incentives that enable companies to invest in remote regions and create jobs there in the long term.

**Financial support for rural industrialisation.** Tax incentives and subsidies are key instruments for promoting investment in rural regions. Through tax breaks, governments can counteract market entry costs for companies and increase the economic incentive to invest in rural production. In many African countries, governments have recognised that the relocation of processing steps to rural areas contributes to the creation of local added value. Subsidies can be used to directly support companies and facilitate initial investments. Such subsidies can offset the high start-up costs associated with setting up decentralised processing facilities.

**Regulation and guidelines for rural industrialisation.** Simplified authorisation procedures can also make a significant difference. Many companies are reluctant to invest in rural areas because of the complex bureaucratic hurdles and lengthy authorisation procedures. If licences for the construction and operation of processing plants in rural areas were granted more quickly and efficiently, this could significantly increase the willingness to invest. African governments could create "one-stop shops" for rural investments to provide companies with a single point of contact for all relevant issues, from land acquisition and permits to environmental compatibility.

**Improved infrastructure.** A reliable internet and telecommunications infrastructure is essential for rural industrialisation. In areas where telecommunications networks cannot be established, affordable satellite communication can be used as an alternative. African countries can also make targeted investments in expanding rural transport infrastructure to lower transport costs and improve access to production sites. Not only would this be an advantage for industrial companies, but it would also significantly improve the rural population's access to markets and services.

**Protect labour rights.** Protecting workers' rights is essential to ensuring that rural industrialisation does not take place at the expense of the local population. African countries must ensure that labour rights are fully implemented and enforceable to prevent the exploitation of rural workers. Fair wages, working time regulations and safe working conditions must be guaranteed. By consistently enforcing these rights, African countries can ensure that economic development improves the quality of life of the local population and does not risk their exploitation.

**Environmentally friendly use of resources.** Environmentally friendly and fair access to resources should also be the focus of political measures. A regulatory framework that ensures environmental protection, social justice and fair labour conditions is crucial to enable sustainable development. Access to natural resources such as water and land should be regulated responsibly in order to protect the rural population from exploitation. African governments could use guidelines and requirements to ensure that rural industrialisation does not take place at the expense of the environment or the livelihoods of the local population.

**German industry's interest in investing in Africa has been relatively low so far –why should that change now?**

Many German companies have traditionally depended on stable supplier relationships with China and Russia for their pre-product procurement. Compared to these established partnerships, investing in Africa was perceived as too risky, and the efficiency of sourcing from Africa was not competitive. As a result, past efforts in Africa primarily centred on pilot projects and corporate social responsibility initiatives.

Today, we are experiencing two trends:

1. In the wake of international tensions, China and Russia are seen as less reliable trading partners than they were a few years ago. This makes it necessary to diversify supply chains. Africa is available as an alternative.
2. Rural industrialisation significantly increases the efficiency of product procurement from Africa, which makes African products more competitive.

What remains is the concern of German companies about state despotism, political upheaval, rampant corruption and great complexity in the African context. The German state can counter many of these concerns with suitable instruments such as guarantees, low-interest loans or technical assistance.



*Figure 7. Solar power plant of Micro Utility Nuru in the Democratic Republic of Congo*

## 8 Potential for German and European companies in the market for rural electrification and industrialisation

Rural industrialisation and electrification in Africa are opening up considerable market opportunities for German companies. Companies that import products from Africa can realise a direct advantage. Rural industrialisation enables them to source their products more cheaply, at a higher quality and more quickly. Furthermore, rural industrialisation offers increased demand for machinery, IT infrastructure and supporting services. German SMEs in particular, with their specialised manufacturing expertise in mechanical engineering and digitalisation, are an ideal partner for providing technologies for small and medium-sized processing plants and digitalised energy systems. These companies have the necessary expertise to offer customised solutions for decentralised, often solar power-based mini-grids and small processing plants that are tailored to the conditions and requirements of Africa's rural areas.

**Advantages for import-oriented German companies.** A decisive advantage of rural industrialisation is increasing cost efficiency. The combination of decentralised energy supply, particularly through renewable energies, and modern processing facilities leads to a considerable reduction in production costs. Importing companies can therefore purchase higher-quality goods at competitive prices. In addition, rural industrialisation enables a more flexible and resilient supply chain. Companies that invest in partnership structures with African producers benefit from more stable sources of supply and reduce their dependence on volatile international commodity markets. German companies can not only optimise their procurement costs but also enhance the quality and efficiency of their entire supply chain. This fosters sustainable economic development across both continents and generates long-term competitive advantages for early investors in this growth.

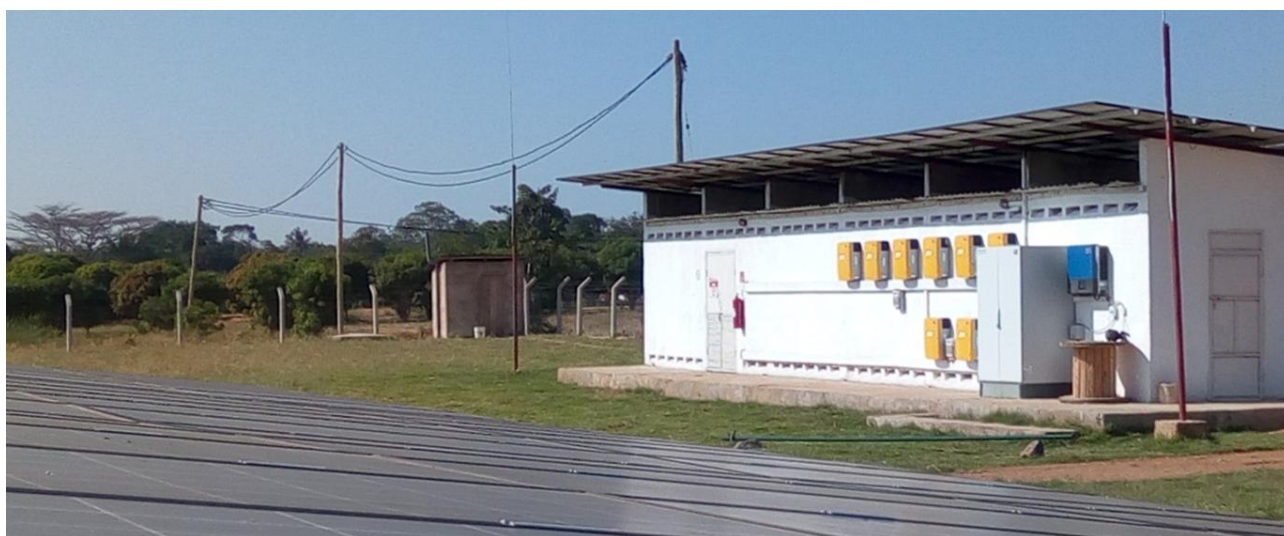
**Economic efficiency and better products through decentralisation.** Decentralisation and rural industrialisation in Africa offer an additional opportunity to increase efficiency in supply chains. Local processing of raw materials close to the source reduces the volumes transported, saving transport costs and time. The increase in efficiency makes it possible to bring better products to Europe faster and often more cheaply. These efficiency gains can help to reduce production costs in the supply chain and improve the marketability of products in Europe. However, this does not mean that European farmers or producers have to fear competition.

**Cooperation instead of competition: focus on products that are not produced in Europe.** Cooperation between Europe and Africa can be organised in such a way that African products that are difficult or impossible to produce in Europe are prioritised for promotion. This includes, for example, rare earths, tropical fruits, some oil fruits, certain animal products and tropical woods. The targeted promotion of African production of such specific goods does not establish direct competition with European producers, but rather creates a complementary trade relationship. This co-operation can contribute to the creation of economic opportunities in Africa and at the same time improve Europe's security of supply. Africa's rural industrialisation thus offers a win-win situation for both continents by contributing to sustainable economic development and supply chain stability. It also provides a strategic response to increasing global competition for African markets, particularly from China, Russia and the US.



**Why the German SME sector is particularly suitable for business in IT and mechanical engineering.** The German SME sector is characterised by flexible and specialised companies that focus on precise technology solutions and sustainable mechanical engineering expertise. With a long tradition in the field of decentralised energy and production technology, the German SME sector has the potential to supply technologies for electrification and industrialisation away from urban infrastructures. This includes efficient machines for agricultural and manufacturing processes as well as IT solutions for remote monitoring and control of these machines and mini-grids. The digitalisation of these machines and networks enables precise control and reliable monitoring of the energy supply and production capacities, which is particularly essential for remote regions without direct maintenance options.

**Germany's role in Africa's rural industrialisation.** Germany can play an important role in rural industrialisation in Africa by making targeted use of various state institutions and programmes and by dovetailing foreign trade promotion and development cooperation. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) could play a central role by supporting African governments in developing the legal and regulatory framework. GIZ has extensive expertise in setting up and implementing development programmes and is already very active in Africa. It can support African countries in creating legal frameworks for rural industrialisation and decentralisation that promote investment and secure long-term development. This includes clear regulations on labour and environmental safety, as well as regulations that simplify market access for private companies in rural areas. Another key player is the Deutsche Investitions- und Entwicklungsgesellschaft (DEG), a subsidiary of KfW Bankengruppe, which can provide low-interest and long-term debt capital for African and European companies wishing to invest in rural industrialisation. However, successful financing requires the application process to be well structured and adapted to the requirements of the private sector to make it accessible and practicable.



*Figure 8. Solar battery power plant and distribution grid of Micro Utility JUMEME on Ukara Island, in Lake Victoria, Tanzania. JUMEME is a Tanzanian company with the participation of German and European investors.*

## 9 Creation of a fund for long-term loans to companies involved in rural industrialisation

A loan fund for long-term investments that supports German companies could make a targeted contribution to promoting rural industrialisation. The European procurement guidelines enable the provision of funding while taking transparency, market neutrality and long-term economic development into account. This makes it possible to create sustainable financing for companies that want to invest in structurally weak regions. The focus should initially be on German companies that want to import products from rural African raw materials to Germany.

**Components of support for rural industrialisation.** A fund could be supplemented by further components so that the support contains the following components:

- **Investment loans** for companies setting up production facilities in Africa and cooperating with local micro utilities.
- **Support for companies** that provide decentralised energy infrastructure, smart supply chains or digital solutions for rural industrialisation in Africa.
- **Cooperation with African micro-utilities** that operate mini-grids to enable industrial processes in regions close to raw materials.

**How can a fund for long-term loans to European companies be set up?** Such a fund could either be based purely on public financing or follow a public-private partnership (PPP) model to mobilise private investment. The EU directives on the allocation of funding (e.g. Directive 2014/24/EU) provide a legal framework to structure targeted funding for companies building value chains in rural areas. Possible structuring models of a fund are:

- **Directly via a development bank (e.g. KfW / DEG).** KfW already grants favourable loans to companies, often via partner banks, with the public sector assuming liability. Similarly, a long-term loan fund could be set up within the KfW system with a specific focus on sustainable or strategic industries.
- **Alternative structure: Private management with public capital (PPP model).** A fund with the participation of insurance companies, pension funds or other institutional investors to mobilise additional capital.

**Comparison with other KfW/DEG funds.** Compared to develoPPP, which offers grants for pilot and CSR projects in developing countries, a new loan fund would target long-term investments with commercial viability. KfW Development Bank already offers investment loans for African companies, but often with a focus on large infrastructure projects. The new fund could close a gap by providing targeted support to SMEs that promote rural industrialisation through local production and processing. This could be done, for example, via special windows for rural industrialisation in programmes such as [ImpactConnect](#), [DeveloPPP](#) or [AfricaGrow](#) (Alliance).

**Promotion of import-oriented companies.** To minimise the financial risk for the German state in connection with loans granted abroad, the focus could be placed on companies that a) manufacture products in Africa and b) import products from Africa and trade accordingly in euros or US dollars. German companies and possibly their African partner companies that produce goods for export to Europe could thus be specifically promoted.



## 10 Conclusion

Rural industrialisation in Africa offers an opportunity to create sustainable economic structures that benefit both African partners and Germany. By establishing processing industries in rural regions of Africa, local value creation can be increased, dependence on raw material exports reduced and economic resilience strengthened. This approach promotes stable incomes and creates new jobs, which are urgently needed in rural areas in particular to counteract poverty and migration and create resilience to climate change and radical ideas.

**Rural industrialisation opens up new markets for German and European companies,** especially for import-oriented companies (43.5 billion euros economic potential), as well as in the mechanical engineering and IT sectors (28 billion euros economic potential). With its expertise, German SMEs are well-positioned to manufacture high-quality and affordable products in Africa through rural industrialisation and to meet demand in the mechanical engineering and IT sectors. Cooperation between Africa and Europe can be organised in such a way that African production focuses on goods that cannot be produced in Europe, creating a complementary trade relationship.

**Rural industrialisation in Africa offers a win-win situation.** It promotes economic development and stability in Africa, creates new economic opportunities for European partners and at the same time offers a counterbalance to the interests of China, Russia and the USA on the continent. Through targeted support, Germany can contribute to the successful implementation and strengthening of the German economy as well as promote the economic and social integration of rural areas in Africa in the long term.

**Rural industrialisation is a partnership model instead of a sell-out of resources.** In contrast to the strategies of China, Russia, or perhaps in the future the USA, which lead to the takeover of African core industries by external players, rural industrialisation preserves the economic sovereignty of African states. This model offers German companies the opportunity to gain access to African resources through sustainable partnerships and, at the same time, build fair economic structures. In this way, Germany can overcome post-colonial continuities and meet African states as equals in partnership. The sovereignty and decision-making authority of the African partner states must always be preserved. With the help of the African Free Trade Area, the African Union can bundle markets, leading to scaling and thus increasing the attractiveness of the African market for international investors, e.g. from Germany. At the same time, the Federal Republic of Germany can ensure a stable political framework for German investments by further developing existing security instruments (see federal investment guarantees).

**Rural industrialisation opens up new markets for German and European companies,** particularly for import-oriented companies, as well as in the mechanical engineering and IT sectors. With its expertise, the German SME sector is well-positioned to manufacture high-quality and affordable products in Africa through rural industrialisation and to meet demand in the mechanical engineering and IT sectors. Cooperation between Africa and Europe can be organised in such a way that African production focuses on goods that cannot be produced in Europe, creating a complementary trade relationship.

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**Stabilising political relations and reducing migration.** Strengthening the local economy is a decisive factor for political stability. Through targeted industrialisation in rural areas with the help of German industry, Germany can strengthen long-term relationships with African partner countries, regardless of geopolitical tensions. Economic resilience also helps to reduce climate change-related and economic migration by giving people prospects in their home regions. African countries are allowed to fulfil their expectations of growth and prosperity by Germany and its companies investing in strategic partnerships with these countries. This is not least about Germany's economic future (e.g. access to rare earths), the preservation of jobs (strong imports of low-cost and high-quality primary products mean strong industries for further processing), security in Europe (e.g. reducing conflicts surrounding climate migration) and the prosperity of our society.

**Supporting rural industrialisation requires targeted political measures.** African governments can make investments more attractive through tax incentives, subsidies and simplified authorisation procedures, while German partners such as GIZ and DEG can create the necessary framework conditions through legal and financial support. These investments are supported by micro-utilities that have established mini-grids based on renewable energy and represent an essential basis for sustainable industrialisation. These micro utilities can also use their experience to support industrial companies in managing complex processes in rural Africa, in digitalisation, in establishing contact with the rural population and in embedding production in village structures.



*Figure 9. Solar PV system in Botswana and tomato pre-processing in an African factory*

## 11 About INENSUS

INENSUS is a German engineering services and consulting company with 20 years of experience in Africa. The company has helped shape legal and regulatory frameworks for micro utilities in many countries and has supported development banks and African governments in setting up suitable financing instruments for rural electrification. INENSUS is currently actively supporting the ramp-up of rural electrification through micro utilities in Africa.

Over the past 8 years, INENSUS has conducted various analyses and experiments on rural industrialisation in Africa in different value chains and several African countries.

It was the gutting, cleaning and freezing of tilapia on Tanzanian islands in Lake Victoria that made it possible for this fish to be preserved, delivered to large cities and sold there. The electricity, water, buildings, security services, internet access and sanitary facilities required for this on the islands where the tilapia fishermen live and deliver the freshly caught fish came from an INENSUS subsidiary, which also supplies the local villages with electricity.

Chilli peppers must be dried immediately after harvesting so that they do not develop aflatoxin. The best quality is achieved with an industrial dryer. INENSUS uses heat pump dryers at the place of cultivation in rural Uganda, which are supplied with electricity by a micro-utility. Here too, the infrastructure and staff of the micro utility are utilised in such a way that synergies are created between the value chains. In this way, the chilli peppers find their way directly to the European market from the place with the best environmental conditions for their cultivation.

INENSUS maintains an extensive network in politics, business and finance in sub-Saharan Africa. It has its own offices in various African countries and is well connected with micro utilities and their investors. On this basis, INENSUS offers market analyses, strategy development and business initiation, with the help of which governments and companies can recognise and develop the potential of rural industrialisation in Africa.



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