

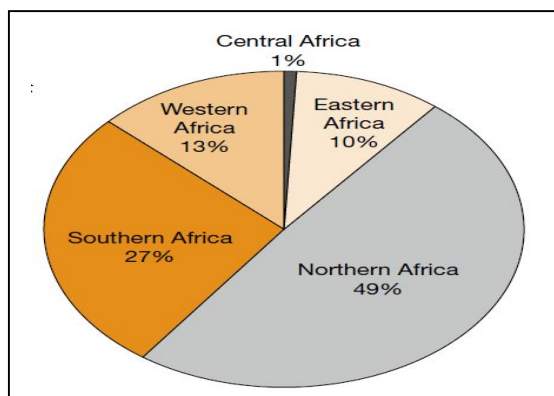
## Trends in the African Construction / Plant Building Market and Implications for Korea

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### Public Infrastructure in Africa

Africa is the poorest continent in the world in terms of public infrastructure. In any country with functioning public infrastructure, and roads form the backbone of transportation; responsible for the 80-90% of movements of people and goods. In Africa, however, only 20% or so of existing roads have been paved. The vast majority of existing railways was laid during the colonial era and is now obsolete, unable to function properly. Much of its port and airport facilities are similarly outdated, becoming, in

effect, the major obstacle to the continent's economic development. Particularly conspicuous as well is the absence of proper electricity infrastructure. Almost 800 million Africans live in the sub-Saharan region, but the aggregate power generation capacity of the region lags behind the capacity of Spain (with a population of 45 million). If South Africa is not counted in with sub-Saharan Africa, the region's power capacity is lowered to the level of Argentina. Nearly a quarter of the existing power facilities are out of order and obsolete. Thirty or so African countries, therefore, experience power outages on a daily basis with serious economic losses as a consequence.

**Figure 1. Paved Roads in Africa**

Source: UNECA, 2010.5. Assessing Regional Integration in Africa: Enhancing Intra-African Trade

The increase in political stability and signs of significant economic growth in Africa, coupled with activities in resource extraction market and the increase in influx of infrastructure development funds from the international community, have led to the explosive growth of the construction industry in the continent. The growth rate of the construction sector in numerous African countries hovers well above the average economic growth rate. This pattern is especially evident in such resource-rich countries as Angola, Sudan, Algeria, and the Democratic Republic of Congo. The public investment plans of these African states, notwithstanding differences in detail, mostly focus on expanding the social overhead capital (SOC), such as infrastructure, for transportation and electricity. Oil-producing countries now actively channel the wealth they have gained from the rise in international oil prices toward expanding their industrial infrastructure, fueling the growing demand for the development of various plants.

## The Explosive Economic Growth of Africa

The explosive economic growth of Africa is expected to continue its trajectory for the time

being with the concomitant rise in the demand for construction and real estate development. *The Economist* has speculated that Africa would soon outdo Asia in terms of economic growth. Seven of the ten countries that the magazine predicted to achieve the fastest rates of economic growth over the next five years (2011–2015) are African countries.

The rapid growth of demand for public infrastructure also stems from urbanization. The rate of urbanization in Africa is well ahead of those in other developing regions. By 2040, the continent is expected to boast at least 100 cities with a population of over one million. Another major source of the rising demand for infrastructure expansion is resource extraction. As the international competition over securing access to greater reservoirs of natural resources continues to ramp up, the resource extraction market in Africa is booming. With the continued influx of foreign capital, Africa may well grow to produce more than 30% of the petroleum in circulation worldwide by 2020. The activity of the resource extraction market has consequently led to the growing demand for the expansion of transportation infrastructure, including roads, railways, and port facilities. It also fuels the rising demand for the development of plants, including power plants, oil refineries, oil pipelines, and offshore plants. The International Energy Agency projects that the public infrastructure development market in Africa, formed and sustained by the exploitation of petroleum and natural gas in the region, would grow to USD 2.1 trillion (or USD 83 billion annually) in total value between 2010 and 2035.

## China: The Most Aggressive Suitor in Africa

The most aggressive suitor in pursuit of

Africa's abundant natural resources is China, which has effectively come to dominate the African infrastructure development market by promising and delivering massive amounts of aid. European companies have mainly led construction in Africa in the past, but the power of Chinese capital is now rapidly replacing these traditional leaders. The aggregate revenue that Chinese investors earned from construction in Africa increased 21 times between 2002 and 2011 with their share of the region's construction market exceeding 40% in 2011.

### **France Still Continues to Exert Major Influence over Africa**

Notwithstanding the impressive accomplishments of China, France still continues to exert major influence over Africa, thanks to the political and economic connections that trace their origins to the French colonial rule over the region. Africa accounted for 13% of the total revenue that French construction companies earned in 2011. This means that Africa, aside from Europe, is the biggest market for French construction businesses. These French investors are actively expanding their share of the African market by launching a consortia and advertising their sector-specific expertise. They have recently begun to diversify their portfolio that includes clients in such nontraditional markets as South Africa, Nigeria, Angola, and Kenya.

### **United States: Focus on the Petrochemical Market**

The United States, along with Europe, has traditionally played a leading role in the African infrastructure market. Its market share, however, fell from 15% to 5% between 2000

and 2011 due to the increasing vigor with which Chinese investors have been expanding their presence in Africa. The United States no longer claims leadership in the transportation infrastructure market. Instead, it has begun to focus increasingly on the petrochemical market in order to take better advantage of the comparative advantage it has in that area.

### **Japan: Turn its eyes on Africa.**

The presence of Japanese businesses can barely be felt in the African construction market. Nevertheless, since the Japanese government introduced a new policy in 2008 for increasing support for companies entering the African market, coupled with the sluggish domestic construction industry and effects of the recent major tsunami earthquake that hit Japan, Japanese construction firms are increasingly eyeing Africa as the next major base of their businesses. The number and volume of orders that Japanese companies have secured for the development of buildings and plants in Africa are noteworthy in their growth rate, increasing by 2.3 times in just one year from 2010 to 2011 with USD 4.26 billion in total revenues.

### **Africa's Infrastructure Development Potential**

The construction market in Africa is still in a nascent stage and lags far behind the counterparts in other developing regions. Due to the absolute shortage of African companies capable of meeting the increasing demand on their own, however, much of the rising demand in Africa must now be satisfied by foreign and international businesses. In 2010, Africa represented 16% of the international construction demand, well ahead of South-Central America (9%) and North America (12%). These indi-

cate ample opportunities for success from the perspective of international construction companies. There are, nevertheless, still a number of risks complicating the prospects of success, including political instability, pervasive corruption, inconsistent policies of African governments, and lack of mutual trust between investors and investment-seeking governments. In particular, the low sovereign credit ratings of most African countries also make it quite difficult for investors to secure the needed financial resources from the international financial market. Long-term financing is crucial, however, to the success of public infrastructure development projects as these capital-intensive projects tend to require much investment and takes a long time before they begin to yield tangible returns. Africa still lacks the structural and systemic conditions to support the financing projects it requires. Many of these risks are more or less repeated in other developing countries. It would be unwise to be blinded by these risks and lose sight of the great potential for success that Africa has. While one must avoid overestimating Africa's potential, one must also awaken to the waves of hope and expectations sweeping across the continent; that demands us to eschew our biases against the continent's capability for development. Obstacles and risk factors persist, but the potential of emerging African construction market is real and warrants thoughtful appraisal.

## Implications for Korea

In light of sizable opportunities that Africa presents, this study examines the potential that the incipient construction and plant development market in the region has. This study then identifies directions that Korean businesses, relative latecomers to the African boom, may take in order to ensure the success of their en-

deavors. The findings and conclusions of this study can be summarized as follows.

First, Korean investors may seek and find the financial resources they need from international financial institutions. With the exception of a few petroleum-producing countries, most African countries are suffering from extreme fiscal deprivation and are unable to fund development projects on their own. As most African countries have low sovereign credit ratings and present serious risks, it is not so easy to secure the financing they need in the international financial market, either. The chronic difficulty of securing financial means is the major reason that makes investors avoid infrastructure development projects in Africa in spite of the high returns they promise. The export credit agencies in Korea thus need to become more proactive and enhance the financial capacity of Korean companies by securing the required financial means in the forms of cofinancing projects with multilateral or bilateral development financial institutions (DFIs). Such financing partnerships are especially important because Korean financial institutions alone cannot handle the development projects of the size and scope that Africa needs. Increasing the network and cofinancing opportunities with these international DFIs will also be beneficial because it will allow Korean investors to make use of the abundant amounts of information, expertise, and experience that these institutions can offer with respect to Africa.

Second, strategic alliances will also be helpful in penetrating the African market. At present, the African construction market is, in effect, dominated by Chinese and European companies. Backed by massive amounts of financial and capital assistance from the central Chinese government, Chinese companies almost exclusively in their ability to meet the new demand across Africa for construction and develop-

ment projects. Former European colonial states also continue to exert significant influence over the construction market in Africa by taking advantage of well-established political and economic “connecting” with these established leaders would indeed be an uphill battle. It is thus crucial to seek strategic alliances with European companies that boast extensive historical and financial presence in Africa by launching a consortia or organizing other forms of partnership. Such strategic alliances would allow Korean investors effectively to overcome their relative lack of information, capital, and experience in the region, and significantly mitigate the risks facing new market entrants.

Forming strategic alliances is also important to spreading out the multiple, complex risks Africa presents by virtue of its political and economic circumstances. Partnership with companies backed by the governments of states that hold significant diplomatic sway over African countries can help Korean investors to lessen their risks, especially associated with unexpected changes or cancellations of their projects. To this end, partnership with Chinese companies is also advised. While Korean investors will have to differentiate themselves from their Chinese counterparts in the long run, they cannot remain blind to the realistic necessity of forming partnerships with these rising leaders of the African construction market. An example of effective partnership would involve a consortium between Korean and Chinese companies in which different partners handle different aspects of the project, such as design and engineering, technology, finance, and construction. Korean contractors of construction projects may also consider hiring Chinese subcontractors.

Other key candidates for strategic alliances in Africa include major players in resource extraction. Multiple petroleum companies have

established their presence in oil-producing African countries. These corporations are, in effect, the main source of the rising demand for various construction and development projects. Cooperation with these international petroleum companies will allow Korean investors to take better advantage of the growing demand for the development of petrochemical plants and other components of the expanding petroleum infrastructure.

Also, Korean investors need to consider securing loans from multilateral development banks. Over the last 12 years, from 2000 through 2011, Africa was the second-largest regional recipient, after Central-South America, of World Bank loans, receiving USD 160 billion or 21% of all the loans provided during the given period. In terms of the number of loans provided, Africa claimed triple the number of loans provided for South Asia or 30% of the total number of loans the World Bank provided. The World Bank provides financial means for various projects in social infrastructure building for eradicating poverty, funding development projects in the areas of energy, transportation, public sanitation, and so forth. Loans for energy development represent the biggest share (22.5%) of all loans provided, attesting to the poor status of electricity infrastructure in Africa. The World Bank will continue to provide increasing amounts of loans for Africa in the coming years, as part of the increasing official development assistance (ODA) the region will be attracting.

With the international society resolved to achieve the Millennium Development Goals by increasing, among others, the amount of ODA to 0.7% of the gross national income of each contributing state, the World Bank is expected to expand the scope and range of the loans it provides significantly. Loans from the African Development Bank (AfDB) may not be comparable to the loans from the World

Bank in amount, but they provide intensive support for the development of core infrastructure, including power plants, waterworks, public sanitation, transportation, and communication. While the number of development projects in Africa backed by funding from multilateral development banks (MDBs) is steadily rising, Korean investors make almost no use of such increasing financial support. Ever since Korea began to provide ODA for Africa, it has so far secured only a single project supported by a World Bank loan for Africa. While Korean investors have secured six loans so far from the AfDB, the total amount of those loans amount is a relatively small USD 137 million. The procedures for securing MDB-backed projects tend to be quite complex and time-consuming, and the dearth of records of Korean investors working on such projects only adds to the difficulty of securing such projects. MDBs, however, are appealing sources of financing in that success in an MDB-backed project can more or less guarantee continued, secured relations with the given MDB for some time to come. MDB-backed projects are also attractive because they minimize the risks of corruption. In addition, MDBs guarantee payments for construction projects and carry no foreign exchange risks.

Therefore, in order for Korean investors to benefit from MDB loans, it is vital to establish a comprehensive and integrated service system that can systematically collect, analyze, and provide information on pertinent MDB projects for Korean investors. Furthermore, it may also be useful to form a pool of experts on MDBs to encourage Korean companies, investors, and participants in MDB projects to share their experience and information. In particular, important preconditions for effective access to MDB-backed infrastructure project market are: good grasp of MDB inner workings, policy, procedures, and project cycles. This means that Korean investors need to par-

ticipate as consultants from the very beginning of each project they want to secure, including its preparation. Participation in the preparatory stage will enable these investors to contribute to the decision of the project's purposes, characteristics and the related components, thereby allowing them to develop a workable blueprint regarding the requirements of the project, including the services and equipment it needs.

Equally important is the need to form a network of exchange and information with other countries. The MDB-backed projects involve the submission of development and project plans from each participating country, MDB approval, and bidding. Networking with MDBs and recipient countries from the first phase of this process will help Korean investors gain greater information, and thus strengthening their chances of winning the bids. The bidding information announced on the Internet is already too public and obsolete according to experts. A well-functioning network with the officials of MDBs and recipient countries will be crucial to collecting the information necessary to draft effective project proposals.

Another key factor that must not be overlooked is the need to build and maintain an effective network of human exchange. The African market entails high levels of uncertainty, unpredictability, and risks. Close working ties with officials of African governments and clients are therefore vital in securing development projects in the region. Most African countries remain unfamiliar markets for Korean investors. It is therefore strongly recommended that the Korean government facilitate these investors' activities in the region by forming and fostering active exchange with representatives of local governments and clients. **KIEP**