

South Africa Mission Report

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Places visited: Pretoria & Johannesburg, Durban, Cape Town
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1. Objective and Summary

South Africa under the current Zuma Administration seems unable to execute industrial policy—especially automotive policy—effectively to solve existing problems and plan for future development. This appears to be a combined result of the lack of quality leadership, limited policy knowledge and capacity, and conflict of interests among some of the foreign car makers. Moreover, South Africa has neither labor advantage nor rapidly expanding demand for automotive production which are necessary for the robust growth of the industry. While recognizing the past achievement of emerging as a medium-sized automotive producer country by attracting a number of multi-national producers, future prosperity or even survival of the automotive sector looks uncertain under fierce global competition. The difficulty is not insurmountable, but a breakthrough will require a fundamental policy reform accompanied by a strong commitment of national leaders, relatively high-quality industrial policy, and close cooperation with stakeholders. Does South Africa have the political will and administrative capacity to initiate such a policy reform? And is Japan—both the government and the private sector—willing and able to support South Africa's effort to upgrade its automotive industry? These are the central questions addressed by this policy research mission.

There was a request from Mr. Ishigame (JICA South Africa) for us to speak at seminars in South Africa. We replied that we were not really interested in just giving seminars but we would be more willing to visit the country if the purpose was to investigate the above issue, examine the current status of organizations and firms concerned, and propose policy actions. To prepare this mission, we received useful materials from the Japanese Embassy and JICA South Africa, discussed with Mr. Igari (METI) and Ms. Hotta (JETRO) in Tokyo, and organized a TV conference with the Japanese Embassy (Mr. Izumi and Mr. Kadowaki)

and JICA South Africa in advance. The mission spent only five working days in South Africa, one of which was a national holiday, and visited three locations in the country, which did not permit us to do full policy research. However, we were more or less able to achieve the main objective mentioned above. We would like to thank the Japanese Embassy, the Office of Consul of Japan, and JICA South Africa for arranging a mission in line with our requests.

To sum up the conclusion of the mission, we believe it is both appropriate and timely for Japan to start necessary actions in cooperation with the South African government to map out a new development strategy for the South African automotive industry despite the fact that the industry is likely to face great difficulty in the absence of serious policy reform and that there is a chance that policy reform may fail. Instead of sitting on the fence, Japanese private firms and government should step forward to positively form such policy coalition with carefully chosen South African partners.

Politically, President Zuma now appears to be weakened over a past corruption case. Looking a few years ahead, a government more proactive to industrial policy may emerge. This is a time for preparing future policy actions and informing and working with future leaders. The mission was unable to meet DTI Minister Rob Davies but exchanged views with key persons in charge of the automotive policy at DTI. They were in principle willing and ready to renovate policy in line with Japanese ideas but wanted JICA's cooperation to fill the gap in local policy capability. DTI should be more than happy to work with us if we responded positively. At Toyota, the leading Japanese car maker in South Africa, we requested the management to consider working with DTI to produce future scenarios and numbers that could convince politicians to support our proposed policy reform.

The Japanese Embassy and JICA South Africa are willing to cooperate in the automotive sector, and a number of Japanese cooperation projects are already in place¹. What Japan needs to do in the future, in addition to these projects, is initiation of action, leadership and coordination in automotive policy design in close cooperation with DTI. For this purpose, active involvement of the Ministry of Economy, Trade and Industry (METI) and the Ministry of Foreign Affairs (MoFA) in Tokyo are also essential and the use of the TICAD VI framework is highly desirable. It will be ideal if we can elevate this bilateral cooperation that strengthens one priority industry in the target country as one of the models of Japanese industrial cooperation in Africa.

2. Pretoria workshops

On the first day of the mission (April 25), a two-part industrial policy workshop was co-sponsored by the Japanese Embassy, JICA, DTI and TIPS. The attendees initially counted about 40 but declined toward the late afternoon. Participants came from the

¹ In FY2014, a visit to Thailand (HIDA), a training course (HIDA), a visit by Japanese component suppliers (JETRO), and a survey on the current status of the supporting industries were arranged. In FY2015, industrial policy workshops (JICA, ongoing), a survey on automotive policy design cooperation (METI), technology and kaizen support for AIDC suppliers (JICA, ongoing), and PSA promotion and 5S for supporting industry firms (Japan Productivity Center, ongoing) were conducted. In FY2016, expert dispatch, support for local component suppliers, attraction of Japanese component suppliers, and strengthening industrial human resource will be continued or newly introduced.

co-sponsoring organizations as well as from the National Treasury, universities and JETRO. Kenichi Ohno was the speaker in both sessions. The morning session reported international comparison of industrial policy quality and the numerical evaluation of each government, while the afternoon session discussed automotive policy components that might be introduced in South Africa with particular references to Thailand and Malaysia. These topics were chosen as opening issues appropriate for this mission, as well as for sounding reactions and interests of participants whom we had never met.

Among the participants, it was clear that Mr. Ritchken was the key person in South African automotive policy formulation. He was well informed of Ohno's works and ideas and offered many comments. There was also discussion with him during the coffee break and he additionally invited the mission team to a BBQ lunch two days later. We also talked with Mr. Renae (Automotive Division, DTI). Unfortunately Mr. Strachen was unable to come to the workshop due to sudden illness. We also understood that the National Treasury was seriously engaged in policy discussion in addition to customary budget works.

3. The automotive policy

Challenges faced by the automotive sector of South Africa were already fairly evident from the materials and information received prior to the mission. Actual visits made them even more clear and concrete. We were also informed of the policy intention of DTI and other related organizations.

The current status of the South African automotive industry is explained in detail in the reports of JETRO, JICA, JCIF and the GENDAI Advanced Studies Research Organization. Even though South Africa's traditional value creation was from the extractive and service sectors, the automotive industry, which occupies about 7% of GDP and about 12% of export, is a particularly important sector within manufacturing. As the share of mining rapidly declines, manufacturing in general and the automotive sector in particular should be regarded as critically important industries for job creation and diversification of economic structure. Nevertheless, in recent years the growth of manufacturing, including automotive, has been slow, and even negative in some years, due to the slow growth of GDP and stagnant international commodity markets. The annual production of automotive vehicles remains around 600,000 of which roughly half is sold domestically and the rest is exported. Passenger car export is concentrated in the US, EU and Japanese markets while commercial vehicle export is mostly directed to Southern African markets. There are more than 20 foreign car companies of which only seven have production facilities in South Africa (Toyota, VW, Ford, GM, Nissan, BMW and Mercedes-Benz). The rest are imported CBUs.

The structural causes of the modest performance of the South African automotive industry include the small and stagnant domestic demand and the loss of labor advantages (as exemplified by low productivity, high wages, labor disputes, and BEE policy²). At the per

² The Black Economic Empowerment (BEE) policy provides point-based preferences to the black population of South Africa. Affirmative action such as this to elevate impoverished groups is essential for social stability as seen in Malaysia's Bumiputra policy and privilege and budget allocation in favor of minority groups in Vietnam and Ethiopia. However, policy implementation must be transparent, reasonable,

capita income of \$6,800 (World Bank, 2014 data), South Africa belongs to the upper-middle income group that should have a vibrant automotive demand. However, the income gap is a very serious problem in South Africa, with the unemployment rate of 25% and the Gini coefficient of 0.65. The population is divided into rich whites and poor blacks—with the result that dynamic motorization is unlikely to occur in South Africa any time soon. This is in sharp contrast to Southeast Asian nations where strong consumer demand is generated by the expanding middle class, or Thailand where there is acute labor shortage in all sectors and levels. Another problem in the South African automotive industry is the existence of too many producers and models in a limited and non-growing market. Healthy growth of the automotive industry requires a large volume of production for each car model.

It must be pointed out that the absence of proper vision and policy to overcome these challenges—and the presence of unnecessary measures—added to the difficulties faced by this industry. Before coming to South Africa, the mission was unable to understand why the country could even establish an automotive industrial cluster without growing demand or strong labor advantage. We were told that the industry had a long history going back to 1925 when GM and Ford built knock-down plants in South Africa³. But history aside, from the East Asian perspective, we have difficulty in comprehending the logic of South African automotive policy in more recent times after democratization. During the years of economic sanctions under apartheid, many domestic industries had to be created even at the cost of economic inefficiency. After democratization in 1994, manufacturing industries were needed for job creation. Under these circumstances, provision of generous incentives to attract foreign car makers to South Africa could be justified and even positively evaluated given the fact that the country subsequently became one of the automotive exporting countries in the world. However, continuation of the same incentive scheme, long after the initial automotive cluster had been formed, is difficult to understand. Car producing countries in East Asia generally discourage firms that specialize in CKD or SKD, firms that make little effort in upgrading domestic human resources or component suppliers, or firms that engage in car import only. Foreign car makers that add little domestic value are normally excluded from any incentive scheme. In some countries such non-appreciated activities are restricted or even banned⁴.

There is some progress, however. Replacement of the Motor Industry Development

efficient and predictable, and should not impose too much burden on business activities. We do not know if South African BEE policy satisfies these conditions. In many countries, many decades of affirmative action often fail to narrow the rich-poor gap, and also foster dependency and weaken entrepreneurship among protected groups.

³ The Japanese automotive industry also began in 1925 when Ford built its knock-down plant in Yokohama. The GM knock-down plant was established in Osaka in the following year. Kiichiro Toyota intensively studied the products of three American motor giants, worked closely with his engineering friends and a large number of metalworking factories in Japan, and in 1935 succeeded in overcoming the technical problem in producing the engine and rolled out the first Japanese car (Model A1). In South Africa, the automotive production still relies on imports, CKD and SKD by foreign producers.

⁴ Malaysia accepts all manufacturing investments but strictly screens projects for value addition and technology transfer before providing any incentive. In Thailand's new FDI law in 2015, incentives are given only to sectors and activities that produce value, bring new technology or implement innovation. Both countries officially advise labor-intensive processes to relocate abroad. Even in Indonesia and Vietnam, where FDI laws are less effective, governments regularly require foreign companies to add domestic value and are not very keen to receive labor-intensive production such as garment and electronics assembly. In the automotive industry, these governments commonly demand promotion of supporting industries (component suppliers) and industrial human resource.

Program (MIDP) 1995-2012 by the Automotive Production Development Program (APDP) 2013-2020 can be regarded as the right step forward (see table). Roughly speaking, MIDP incentivized auto assembly for export while APDP encourages domestic auto production. This is a welcome move, but even APDP is not very effective in promoting domestic value creation and technology improvement.

Highlights of MIDP and APDP

	MIDP (1995-2012)	APDP (2013-2020)
Tariff protection	CBU tariff reduced from 65% to 25% and CKD tariff reduced from 49% to 20% in steps.	Maintain CBU and CKD tariff at 25% and 20% respectively.
Incentive for domestic production	Rebate amounting to 27% of shipment value of domestically assembled vehicles, usable for offsetting import duties of parts used for domestically sold vehicles (DFA).	Rebate of 18-20% of shipment value of domestically assembled vehicles provided that annual production exceeds 50,000 units, usable for offsetting import duties of parts used for domestically sold or exported vehicles (VAA).
Incentive for sales	Import credit linked to export value is provided, with benefits based on the use of locally produced parts.	Production incentive is given to both export and domestic sale, with benefits based on local production value.
Incentive for investment	Subsidy amounting to 20% of investment value is given to assembler and Tier 1 firms over five years, i.e., 4% equivalent provided each year (PAA).	Subsidy amounting to 20-30% of investment value is given to automotive assembler and supplier firms over three years, i.e., 6.67% equivalent provided each year (AIS).

A few irregularities can be mentioned. First, offering import duty exemption or reduction, without checking domestic value creation or technology transfer, is unusual. Incentives for CKD and SKD are rarely seen in Asia. Second, investment subsidy amounting to 20-30% of investment value, also without assessing value creation, seems very generous. Tax holiday in which the corporate income tax that should be paid by the firm is exempted or reduced for a limited period is common, but sharing investment cost by using taxpayer's money is not. But we need to compare the monetary benefits of tax holiday and investment subsidy before arriving at the final conclusion. An additional risk is that one-time investment subsidy without monitoring subsequent business activities may encourage subsidy grab-and-run or discourage long-term investment and production in the country.

The mission was not ready to produce final policy recommendations which would require more study, but it could tentatively suggest the following reform directions based on available information. Automotive incentives must be linked to the quality of activities (value addition, technology transfer, training of workers and engineers, strengthening supporting industries, R&D, etc.), not the sheer volume of production. Exemption or reduction of

corporate income tax should be provided on the firm's actual profit stream instead of providing transferable import credit based just on declared production plans. Moreover, an automotive incentive scheme must be crafted in such a way to minimize the risk of violating WTO rules or any other trade and investment rules to which South Africa is committed.

4. Incentives, SEZs and industrial human resource

The mission did not have time to study all key components of South Africa's industrial policy, but it did receive some information on the incentive scheme, special economic zones (SEZs), and industrial human resource.

We were unable to grasp the entire structure of South Africa's incentives, which seemed quite complex, even after reading prepared materials. However, we were fortunate to meet Ms. Malebo Mabitje-Thompson, Director of DTI's Incentive Division, as well as the National Treasury team including Ms. Nonhlanhla Ngwenya, both of whom explained to us the country's incentive scheme with sufficient detail. Obtained information can be summarized as follows.

As noted earlier, South Africa does not have permanent incentive measures such as corporate tax exemption or reduction ("tax holiday"), import duty exemption on industrial inputs and equipment, and investment allowances, which are applicable to all projects and activities on a published list with transparency, stability and predictability covering broad sectors or at least the manufacturing sector. South Africa has various incentives attached to individual projects which usually have a duration of five years, and they are classified into (i) tax exemption and reduction which are automatically granted to eligible firms by the National Treasury; and (ii) departmental grants in the forms of subsidies or rebates which require screening and have budget limits. In terms of budget size, automatic tax privileges are greater than departmental grants. In sectoral distribution, manufacturing has the lion's share and the majority of incentives fall under DTI. Other departments in charge of agriculture, tourism and SMEs have smaller incentive budgets. The Incentive Division of DTI is responsible for collecting budget requests from all DTI divisions and negotiating with the National Treasury. At DTI, 12i (twelve eye)⁵, AIS and SEZ-related incentives are the most important. Other DTI incentives are relatively small and temporary. Incentives for medium to large firms do not distinguish domestic and foreign firms.

For grant-type incentives, departments can negotiate with the National Treasury for extension or increase, but such requests are rarely accepted even if incentives are found effective or if the scheme started late due to administrative delay. For example, MCEP, a subsidy for manufacturing value-added, was so popular there was greater demand than the amount budgeted, with the result that the scheme was terminated before the application deadline. By contrast, incentives for AIS (a cabinet decision) and critical infrastructure (law)

⁵ 12i is a subsidy scheme for manufacturing investment starting from 2010 for five years with the budget of R20 billion. As not all funds were used, extension of two years was permitted with the lowering of the minimum investment size from R200 million to R50 million or R30 million. This increased application and the fund is likely to be exhausted before the deadline of 2017. Up to now sixty firms took advantages of 12i. However, automotive firms are not eligible for 12i because there are other incentive schemes designated for the automotive sector.

are expected to continue because they are decided at higher than the department level. As long as automotive incentives are stated in MIDP or APDP, they are more permanent than other incentives. In any year DTI has about 13-14 overlapping incentive schemes running simultaneously with an average total of R5.5 billion per year. To maintain this situation, DTI needs to motivate (propose) new programs every year. Incentive guidebooks for investors must also be revised every year. DTI hopes to secure budget more permanently for all key sectors including metal processing, mining equipment, industrial equipment, agro processing and fuel cell, in addition to automotive and critical infrastructure.

There were voices that the incentive structure in South Africa was fragmented. We agree that a collection of multiple overlapping incentive schemes, each lasting five years only, lacks predictability and stability. This does not stimulate enterprises planning long-term investment in the country, nor does it clarify the vision toward which the government is assisting industries. We recommend more simple and user-friendly privileges which are maintained until laws are revised. Incentives provided by the Thai and Malaysian investment authorities (BOI and MIDA) should provide good reference points.

We had a brief hearing on SME policy at the National Treasury. This policy also seems fragmented with DTI, the Department of Small Business Development, the Department of Science and Technology, provincial and local governments, etc. implementing various policies independently. There is no one-stop SME support service. Recently, SME policy was transferred from DTI to the newly created Department of Small Business Development to differentiate policy packages for large and medium enterprises and for SMEs. In South Africa, an SME is defined as an establishment with annual turnover of R10-30 million for all sectors although the number of employees is also sometimes counted. South Africa offers grants to SMEs in the form of matching funds covering 30-50% of eligible expenditure by SMEs with the limit of R250,000. This is quick grants disbursed immediately at the presentation of relevant invoice documents.

Regarding industrial estates, South African policy is still at an early stage in comparison of a large number of cases in Southeast Asia. The previous IDZ policy was replaced by the new SEZ policy in 2015 but we were unable to get its operational details. SEZs are owned by provincial governments and normally developed and managed by a public sector entity. Tenant firms may be able to enjoy various incentives regarding import, employment, factory construction and corporate income tax⁶. The SEZ Fund has been prepared as a financial source for such incentives. Each SEZ is to have one-stop investor service and bonded areas. Each province can establish up to two SEZs, with six SEZs currently (partly) operational nationwide⁷.

⁶ South Africa provides additional incentives to tenant firms in SEZs, but this arrangement is not universal. Many countries do not distinguish firms inside and outside industrial estates, while others give privileges to both developers and tenants of industrial estates. Still others rank industrial estates and provide differentiated incentives and conditions. The geographical scope of industrial estate incentives also varies from national to provincial and even by individual industrial estates.

⁷ It would be nice to have a booklet or a website that explains the up-to-date details of each SEZ. It should include information on precise location, year of establishment, owner, operator, contact details, rents and other financial terms, areas of initial and entire development, a map of rental plots, geological and ground information, schedule for initial completion, expansion and completion, a list of current tenant firms, and explanation of available privileges and incentives.

Local government-owned industrial estates operated by a public sector corporation through a management contract is a not uncommon arrangement. Nevertheless, actual performance often varies depending on the business mindset and the degree of intervention by the local government, and the operational capacity of the developer. Governments with no prior experience of successful development of industrial estates may not be able to provide incentives, one-stop service, and customs clearance to the satisfaction of globally competitive firms.

In the automotive sector, the planned SEZ to attract automotive suppliers in Durban Municipality, KwaZulu Natal (KZN) Province is worth mention. We collected information on this project from officials of Durban Municipality, Dube Trade Port (DTP) Corporation (a developer 100% owned by KZN Province), and Toyota Tsusho Africa. This industrial estate, first conceived in 2005, was slow to be realized. Initially the old Durban Airport near the Toyota factories was proposed for the site but this did not materialize. The current plan is to build it in the sugarcane land further south. The F/S by a consultation firm (AECOM) has been completed but detailed design is yet to be produced. At the time of the mission, land and municipal budget had almost been secured. The SEZ has the total area of 1,000ha of which 150ha (or 100ha) is slated for the first phase. The SEZ is expected to be operational, with first tenant firms moving in, around April 2018, which seems an appropriate schedule given the current progress. DTP Corporation develops a multi-function SEZ consisting of offices, research centers, high-tech agro areas, etc. adjacent to the new Durban Airport, and the proposed SEZ may be developed as part of the existing SEZ. However, the official name of the new SEZ does not seem to be agreed among stakeholders. Durban Suppliers Park and Automotive Supplier Park are mentioned in certain documents. We also heard that a more generic name should be better to attract non-automotive firms in addition to automotive suppliers. The plan may include a small area of 30-40ha within the first phase to specialize in attracting automotive firms, in which case small-size rental factories may be provided.

The Municipality of Durban is responsible for administrative procedure, re-zoning and infrastructure up to the zone fence. The municipality is keenly interested in the employment creation of the proposed SEZ, and has already initiated impact studies on surrounding marshlands and water sources to expedite the environment assessment process. Toyota Tsusho Africa on the other hand appears to work on FDI marketing, which includes relocation of existing automotive suppliers to the new SEZ as well as attracting new ones. Some Japanese firms have already expressed interest. Toyota South Africa is also monitoring the progress of the SEZ as a receiver of more automotive suppliers.

At this moment, however, necessary details on tenant land allocation, access roads, sales prices and conditions, water source and quality, power supply, waste water treatment, one-stop investor services, etc. remain undecided. Potential tenant firms may express general interest but they may not be ready to sign a contract and FDI marketing for such contracts seems premature. This should not be a problem because there are two more years before the SEZ opens for business. Dong Van 3 Industrial Zone (Ha Nam Province, Vietnam) and Phu My 3 Industrial Zone (Ba Ria-Vung Tau Province, Vietnam), which we

closely monitor and advice, are being built with high specifications that can attract Japanese manufacturing SMEs and component suppliers. Both zones have finished detail design and construction work is underway, with the expected completion date of late 2016. FDI marketing began in earnest in April 2016. The new SEZ in Durban should learn from high-quality industrial zones in Asia such as these and reach this stage within one-and-half years.

The mission did not have time to study industrial human resource training. Below is the provisional summary of information received from the Japanese Embassy in South Africa. The National Qualification Framework (NQF) is South Africa's official skills standard ranging from 1 (middle school graduates) to 10 (PhD holders). Besides this, many firms, including Toyota, adopt firm-specific skill systems for worker training and evaluation. In manufacturing, there is also the concept of *artisans* which seems to imply workers that have passed certain TVET tests (similar to "trained workers" in Vietnam). We have no information on the number, the demand-supply situation in the labor market, skill adequacy, the degree of satisfaction on the firms' side, and so on, of artisans. Some point out that incentivization is lacking for artisans to positively contribute to business development or pursue their own career paths as highly skilled engineers.

The Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA) as well as certain provincial TVET institutions, such as Coastal KZN College and Mangosuthu University of Technology, appear to offer reasonable technical training. They teach such basics as tooling, jigs, die-and-mold and metal processing by combining theory and practice. Scholarship is also available from the National Skill Fund. Apart from these, Toyota runs Toyota Training Academy, an officially certified training and testing institution, to train its workers as well as workers of other firms. Firms operating in South Africa are encouraged to train workers by the subsidies of Sector Training Education Authorities (SETAs) and tax incentives, in addition to the need to accumulate BEE points. The mission was unable to assess the quantity, quality and the degree of proper matching with industrial needs of technical training in South Africa.

Separately, for the purpose of educating young African manufacturing engineers, Toyota will create an MBA course at the planned Toyota Institute of Management Studies in cooperation with Professor Barnes of KZN University. The Toyota Foundation has purchased a land of 2.5ha on Umhlanga Ridge and construction is to begin in 2017. However, the funding for the building has not been identified, for which an investment or loan by the Japanese government is sought. An annual intake of 50 students is planned which will include not only workers of Toyota and its suppliers but also from the South African government and other African countries. Given the fact that South Africa already has basic policy frameworks, subsidies and TVET institutions, the next step should be to match the content of TVET education with the skill requirements of the industry. This should cover the curriculum, the number and quality of instructors and regular cooperation with manufacturing firms. Past experiences of East Asian countries, including Thailand and Vietnam, should be useful for this purpose.

5. The Department of Trade and Industry (DTI)

The mission did not meet Minister Rob Davies, but it had informal discussions with three key persons responsible for the automotive sector: Mr. Girth Strachan (Deputy Director General), Mr. Edwin Ritchken (Advisor) and Mr. Renae (Automotive Division). Exchanges with the former two were similar and related, which are summarized in the following two paragraphs based on Ohno's understanding and interpretation.

Works by Kenichi Ohno have been studied. They provide concrete and realistic policy analyses and proposals. DTI also heard lectures by a number of famous researchers but their ideas are more abstract and general. DTI hopes to improve the automotive policy but politicians and certain car makers need to be convinced. South Africa is particularly sensitive to employment issues.

We need to prepare concrete data based on international comparison to persuade politicians in their own logic. Forecasts of job creation are required, and additional impacts of automotive policy revision on the balance of payments, domestic value creation, workers' skill improvement and technology transfer will also be useful. National leaders may react positively if such data are presented in readable form. JICA cooperation will be appreciated because DTI staff alone may not be able to come up with convincing numbers. We will start to revise the automotive policy from this year. We do not consider starting the revision work now is too early even though APDP is effective up to 2020.

To this proposal, five remarks of the mission may be added. First, the demand forecast of 1.2 million units in APDP is unrealistic and should be revised downward. Second, we agree with the DTI officials that concrete and attractive numbers should be presented to national leaders. Rough forecasts based on common sense are better than scientifically "rigorous" but unsupported numbers because they are for persuasion and policy action, not for writing a professional article. Third, Japan should help with gathering information on benchmarking on Thailand, Brazil, Mexico, etc.; policy measures to increase domestic production for the domestic car market, such as eco-car and other tax incentives and restraints on CBU import, and for capturing more export markets and conducting effective trade negotiations; model- and platform-targeting and incentives for raising production volume for each model; and an array of concrete measures for strengthening automotive human resource and component suppliers⁸. Existing materials, including the report by the GENDAI Advanced Studies Research Organization, should also be cited if useful

Fourth, cooperation of not only JICA but also ALL JAPAN, which covers the Japanese Embassy in South Africa (as a command post), JETRO, HIDA, the Japan Productivity Center, Toyota, Japanese component suppliers and Toyota Tsusho, with a strong support by the Tokyo headquarters of METI and MoFA, is required. Cooperation should benefit both

⁸ We inquired whether there was a list of prospective local supplier firms for the purpose of initial screening for handholding (concentrated and multiple assistance to level up a small number of selected firms). Mr. Renae of the Automotive Division informed us that the Automotive Supply Chain Competitiveness Improvement Initiative (ASCCI, a joint organization of government, management and labor) had such a list. In addition, Toyota and Japanese experts are assisting local component suppliers and should also have relevant information. Similarly in Vietnam, JICA Vietnam in cooperation with a research institute under the Ministry of Industry is currently trying to compile such a list for improving selected firms in the future.

countries (South Africa and Japan) by upgrading the South African automotive industry to a globally competitive level. Fifth, a future government of South Africa may be more proactive and Japanese cooperation should be ready to support such a government if it comes into place. While APDP is effective until 2020, an earlier revision may become possible if a future government agrees on a new direction of the automotive policy.

6. Toyota South Africa

The mission visited Toyota South Africa Manufacturing (TSAM) in Durban. Dr. Johan van Zyl (Chairman) and Mr. Andrew Kirby (President and CEO) were out of town. We met seven management leaders of TSAM including South African and Japanese. Toyota presented slides, and discussion followed and candid ideas were exchanged. The mission also had a tour of the main factory.

Toyota has a long history in South Africa dating back to 1962. Despite this, it continues to face difficulties in demand size, human resource and component supply. Recently South African production stays around 600,000 vehicles per year without a visible increase, forcing producers to operate much below capacity with only one work shift and a slower tact time (line speed) than in other countries. At TSAM, Hilux (pickup truck) and Corolla are produced with the former being the main product as domestic demand for mid-sized sedans is declining. Other Toyota cars with smaller volume are imported. For Toyota, South Africa is one of the global production sites for pickup trucks, along with Thailand and Argentina, and the country also serves as the gateway to the African Continent. The headquarters of Toyota recognizes this and assists TSAM to fulfill these functions. Currently a new Hilux model is being introduced at TSAM.

Worker turnover is low in South Africa (perhaps due to high unemployment outside). Annual salary including social security contribution and benefits now reaches 1.5 million yen (about \$13,700) while labor productivity remains low. For this reason, Toyota gradually introduces robots to replace humans and reduce production costs. 30% of body welding work is currently done by robots. While the quality of South African workers is lower than that of Thai or Mexican workers, TSAM saw some improvements in the last decade.

Supporting industries (component suppliers) are underdeveloped and their numbers are limited in South Africa, with the result that suppliers often act monopolistically. Incidents of defective components are high, and buyers (assemblers) have to carefully check the quality of delivered components, a practice rarely heard of in Asia. While the mission was making a tour of the factory, the Hilux line stopped due to the shortage of one component because a dominant supplier failed to deliver it.

The mission made the following suggestion to the TSAM management. South African automotive policy has improved with the adoption of APDP, but it still has queer irregularities such as incentivizing simple assembly while ignoring component supplier promotion, human resource development and technology transfer. DTI officials want to prepare concrete data to persuade politicians into further policy revision as noted above. The mission proposes all stakeholders to jointly and strongly assist this work. The Japanese Embassy and JICA

South Africa are already willing. Certainly there is a risk involved, but the proposed policy change is reasonable and will aim at “win-win” results for both countries. To proceed with this work, information from Toyota, the leading automotive maker in South Africa, is essential. Ohno has observed the automotive industry in Vietnam for more than two decades where METI in Tokyo and the Japanese Embassy, JICA, JETRO and Toyota Vietnam have continuously worked together to improve the policy. For example, around 2000, Toyota Vietnam and the Ministry of Industry produced a future scenario for the Vietnamese automotive industry. There is no reason why South Africa cannot do the same. Instant response is not needed, but we hope TSAM will internally discuss this seriously. If TSAM decides to join cooperation with DTI, please contact the Japanese Embassy or JICA.

7. Other activities

A proposal from NEPAD

This information is noted here because it has an important bearing on Japan’s industrial cooperation in Africa even though it is not directly related to the present mission. By the arrangement of the Japanese Embassy, the mission met Dr. Ibrahim Assane Mayaki (NEPAD CEO and the former PM of Niger) on April 27 in the suburbs of Johannesburg. We briefed on kaizen and industrial policy dialogue in Ethiopia but Dr. Mayaki was already informed. He explained the three levels of NEPAD activities (whole continent, regions and individual member countries) and pointed to the problems including the lack of planning capacity of each member country, shortage of industrial skills, and difficulty in executing infrastructure projects across national borders.

Dr. Mayaki felt that the industrial experience of Ethiopia was not widely shared among member countries. While Ethiopian politics may be different from others, he was confident that at least some of the member countries would be interested in African industrialization by the effort of Africans themselves. He proposed that, with Japanese assistance, NEPAD would like to create opportunities to disseminate Ethiopian industrialization experience among member countries. Specifically, (i) presentation at the twice-yearly (January and July) 20 heads of state meetings organized jointly by NEPAD, AfDB and UNECA; (ii) more detailed explanation at the ministerial meetings on industry, science and technology held at similar times; and (iii) a new kaizen program within the NEPAD framework (this idea was still a very preliminary one) were proposed.

The mission explained that dissemination of Ethiopian kaizen and industrial policy dialogue throughout the continent was intended in the third phase of each project. Dr. Mayaki’s proposal should properly be relayed to and responded by the relevant Ethiopian and Japanese authorities, but the mission predicted that Japan should be eager to cooperate. We also suggested the possibility of participation of ACET, an Accra-based policy think tank, in disseminating Ethiopian industrial experience, to which Dr. Mayaki agreed in principle. Further communication should be directed to Dr. Mayaki himself with cc to Ms. Fati (NEPAD Coordinator).

Using an existing African framework to publicize Japanese industrial activities on the continent is a good idea from the perspective of effectiveness and African ownership as well as budgetary saving and logistic ease on the Japanese side. Dr. Mayaki's proposal, coming from the African side, is highly welcome and should be positively reacted as it reflects increasing interest in Japanese industrial cooperation in Africa. NEPAD is especially suited for PR within Africa even though we do not have to work with NEPAD for all purposes. The proposal will be a mutually beneficial one as NEPAD will also add a visible project to its industrial sector activities. January 2017 will give us enough time for preparation, but given the approaching TICAD VI (end August 2016) and the limited term of Dr. Mayaki, it would be advisable to offer some initial input in July 2016 and provide additional and more targeted information in January 2017. These should also be closely linked with TICAD VI. Works on this must be started now, separately from the proposed actions in South Africa.

The University of Cape Town

The mission had an opportunity to give a small one-hour seminar to the faculty members and graduate students of the School of Economics of the University of Cape Town. We were not informed of the School's interest in advance, and we gave essentially the same talks on industrial policy quality and automotive policy done four days earlier but in a more condensed form. Responses were generally active and positive. Professor Mike Morris was well informed of Ethiopian situations which he positively evaluated, and had reviewed related materials and our presentation slides in advance.

8. Concluding remarks

The policy advice of this report should by now be clear. The mission would like to see the initiation of active industrial cooperation by Japanese official and private stakeholders interested in the South African automotive industry. This will require not only the implementation capability but also the willingness to assist this industry of the Japanese side. The driver of this plan should be the Japanese government, especially the Japanese official agencies in South Africa. The GRIPS Development Forum will be happy to lend an additional hand from the sideline if that is requested and deemed effective.

In the technical area, issues to be raised are already sufficiently clear in the report of the GENDAI Advanced Studies Research Organization (commissioned by METI). To list up its key points from the viewpoint of the GRIPS Development Forum, the following works are needed: a clear long-term vision and a new action plan for the South African automotive sector; re-setting of production and demand scenarios and related targets; impact assessment on employment, domestic value creation, the balance of payments, and so on, based on international comparison; proposals for stimulating and capturing the domestic market and boosting export; announcement of targeted models and incentives for ensuring sufficient volume for each selected model; adjustment of incentives to attain revised policy objectives; concrete plans for industrial human resource training and supporting industry

promotion; and strategic attraction of FDI component suppliers and provision of SEZs for that purpose.

In addition to data collection and technical analysis, relation- and trust-building with the national leaders and key economic ministers of South Africa as well as emerging future leaders, by expressing Japanese policy interest and willingness to cooperate, providing necessary information and strategy for policy change, and conducting bilateral economic diplomacy for mutual benefit, will be indispensable. These should be led by the Japanese Embassy in South Africa in cooperation with JICA, JETRO and concerned Japanese firms in South Africa and supported strongly by the relevant ministries in Tokyo.

Appendix: Mission Schedule (April 2016)

April 23 (Sat)	Leave Tokyo, via Singapore.
April 24 (Sun)	Arrive at Johannesburg, move to hotel in Pretoria.
April 25 (Mon), Pretoria	All day industrial policy workshop for policy makers and researchers at Villa Sterne, Pretoria. Morning session on the international comparison of industrial policy quality. Afternoon session on the automotive industry. Kenichi Ohno was the speaker for both sessions. Dinner at the official residence of Japanese Ambassador Hiroki.
April 26 (Tue), Pretoria	AM – meeting with National Treasury team on budget, industrial policy and incentives. PM – meeting with DTI’s Incentive Division on incentives.
April 27 (holiday), Johannesburg	AM – meeting with Dr. Ibrahim Assane Mayaki (NEPAD CEO) in the suburbs of Johannesburg. PM – friendly lunch meeting at Ritchken residence, DTI Deputy DG Strachan also present. Fly from Johannesburg to Durban.
April 28 (Thu), Durban	AM – visit Toyota South Africa, have meeting with management team and visit the main factory. PM – meeting with Toyota Tsusho Africa. Meeting with Dube Trade Port Corporation and the Urban Planning and Economic Development Sections of the Municipality of Durban. Fly from Durban to Cape Town.
April 29 (Fri), Cape Town	AM – meeting with Mr. Alec Erwin, former DTI Minister PM – giving a seminar at the School of Economics, the University of Cape Town. Visit the Japanese Consulate Office. Tour the city and vicinity.
April 30 (Sat)	Leave Cape Town, via Johannesburg.
May 1 (Sun)	Via Singapore, arrive at Tokyo.