The Federal Republic of Nigeria

National Automotive Council

Data Collection Survey on Automotive Sector in the Federal Republic of Nigeria

Final Report

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Japan International Cooperation Agency (JICA)

Yachiyo Engineering Co., Ltd.

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US$ 1.00 = 122.74 Japanese Yen

Nigerian Naira 1.00 = 0.617 Japanese Yen

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Abbreviations

ADF	Automotive Development Fund
ALCMAN	Automotive Local content Manufacturers Association of Nigeria
APDP	Automotive Production and Development Programme
ARSO	African Regional Organisation for Standardisation
ASPMDA	Automotive Spare parts and Machinery Dealers Association of Nigeria
BOI	Bank of Industry
BOP	Base of Pyramid
CADD	Centre for Automotive Design and Development
CIF	Cost, Insurance and Freight
CKD	Complete Knocked Down
CPI	Consumer Price Index
DKD	Disassembled Knocked Down
ELAN	Equipment Leasing Association of Nigeria
FBU	Fully Built Unit
FCT	Federal Capital Territory
FMF	Federal Ministry of Finance
FMITI	Federal Ministry of Industry, Trade and Investment
FMST	Federal Ministry of Science and Technology
FRSC	Federal Road Safety Commission
FTZ	Free Trade Zone
GDP	Gross Domestic Product
GNI	Gross National Income
HAWA	Honda Automobile Western Africa Ltd.
IAF	International Accreditation Firms
IMF	International Monetary Fund
IPP	Independent Power Producer
ISO	International Organisation for Standardisation
ISTC	Industrial Skills Training Centre
ITF	Industrial Training Fund
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
KD	Knocked Down
LCCI	Lagos Chamber of Commerce and Industry
MAN	Manufacturers Association of Nigeria
MANCAP	Mandatory Conformity Assessment Programme

MIDP	Motor Industry Development Programme
MSMEs	Micro, Small and Medium Enterprises
NAC	National Automotive Council
NADDC	National Automotive Design and Development Council
NAIDP	Nigerian Automotive industry Development Plan
NAMA	Nigerian Automotive Manufacturers Association
NASENI	National Agency for Science and Engineering Infrastructure
NCS	Nigerian Customs Service
NEDEP	National Enterprise Development Programme
NEPZA	Nigerian Export Processing Zone Authority
NGN	Nigerian Naira
NPC	National Planning Commission
NIPC	Nigerian Investment Promotion Commission
NIPP	National Integrated Power Project
NIRP	Nigeria Industrial Revolution Plan
NIS	Nigerian Industrial Standards
NNPC	Nigerian National Petroleum Corporation
NOTAP	National Office for Technological Acquisition and Promotion
NRTR	National Road Traffic Regulation
OEM	Original Equipment Manufacturer/Manufacturing
OICA	Organisation Internationale des Constructeurs d'Automobiles
PHCN	Power Holding Company of Nigeria
QCD	Quality, Cost and Delivery
QMS	Quality Management System
R&D	Research and Development
RMRDC	Raw Materials Research and Development Council
SENAI	Serviço National de Aprendizagem Industrial
SITC	Standard International Trade Classification
SKD	Semi Knocked Down
SME	Small and Medium Enterprise
SMEDAN	Small and Medium Enterprises Development Agency
SON	Standards Organization of Nigeria
SONCAP	Standards Organisation of Nigeria Conformity Assessment Program
TAR	Technology Acquisition and Research
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
VIN	Vehicle Identification Number

Executive Summary

1. Background and Objective

1.1 Background

The National Automotive Council (hereinafter referred to as "NAC") formulated the Nigerian Automotive Industry Development Plan (hereinafter referred to as "NAIDP") and action plans from June 2014 to November 2019 (54 months) and one year preparation period from June 2014 to May 2015. This plan aims at fostering the automotive industry and implementing various measures to attract investment, specifically developing automotive supplier parks in three regions, attracting foreign automobile manufacturers actively, supporting the development of local content manufacturing industry, human resources development in the automotive industry by the up-to-date curriculums, and the establishment of industrial standards for certification of safety and quality of products. By the various efforts that have been driven by these policies, interests of investing by foreign automotive industries are getting higher such as a Japanese company that started the car assembly production in the Nigeria in 2014. Under such circumstances, the Nigerian Government requested "The Project for Development of Automobile Supplier Parks in Nigeria" to the Government of Japan in July 2014. This requested project is a stepping stone to realise the automotive supplier parks in three regions targeted by the government and includes the formulation of a master plan for the development of the supplier parks in Lagos-Ogun-Oyo State area where the automotive industry has been developed.

1.2 Objective

The objectives of the survey are to analyse the current issues on the development of the automotive industry in Nigeria, including the policy and strategy, institutional framework and progress of development of the automotive industry, to sort out political and technical issues in the promotion of domestic production in Nigeria; and to analyse and make suggestions on the direction of Japan's cooperation in future assistance programmes.

1.3 Survey Area

The survey was conducted around Lagos State where the automotive industry is prosperous, and in Abuja, the federal capital of Nigeria, in order to grasp the comprehensive government approach to automotive industry development.

2. Current Situation and Challenges of Automotive Industry in Nigeria

2.1 Automotive Industry in Nigeria

Although the number of companies has been increasing, the automotive industry has not grown as expected due to 1) nonexistence of its automotive industry development policy, 2) a drop in demand for automobiles due to the economic conditions in 1980s and 1990s, 3) insufficient supporting policy measures by the government and 4) no consistency in the protection policy. Especially, devaluation of the currency, deregulation and decrease in import tariff caused drop-off in profits for the domestic manufacturers. Such policy change was a

response to the instructions by IMF in 1980's. As a result, the domestic automotive industry went into decline in the 1980s and 1990s due to the influx of the technologically advanced cars from abroad and the used cars, which made impossible for the domestic assembly plants to compete.

National Automotive Council (NAC) was set up in 1993 as a responsible body to implement the national automotive policy. However, according to the annual report 1999, NAC continued to suffer severe financial constraints due to lack of funding and could not undertake most of programmes and projects. The specific sectorial challenges of Nigeria's automobile sector are as follows:

- Lack of fiscal measures such as restriction of import of fully built units (FBU)
- Poor local patronage (lack of adequate patronage by the public and private sectors)
- Lack of measures to control the importation of used vehicles
- Unequipped auto clusters and support infrastructure
- Small scale of operators
- Other structural barriers such as high cost of power, tough investment climate, inadequate skills, high cost of funding, and low finished goods standards

2.2 Nigerian Automotive Industry Development Plan

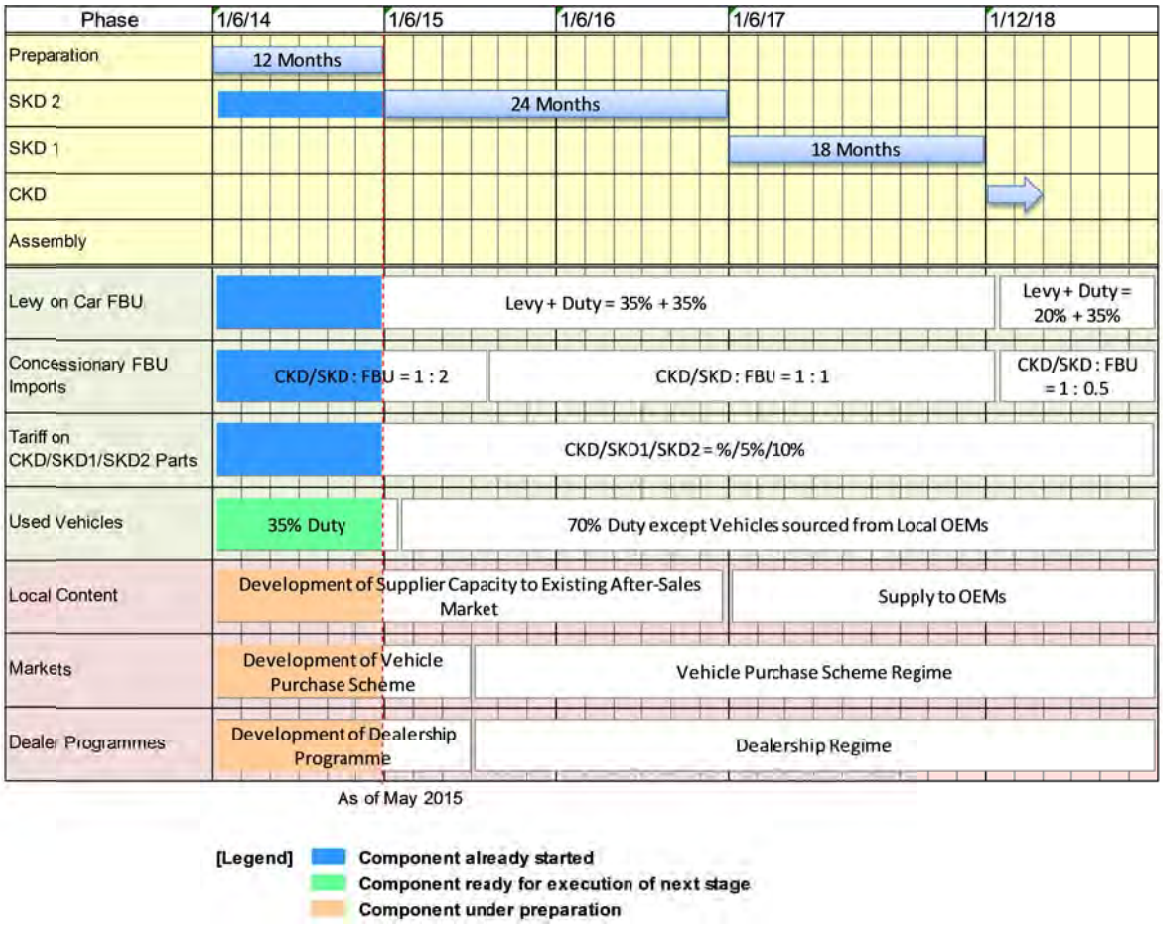
2.2.1 Outline

The Nigerian Automotive Industry Development Plan (NAIDP) was prepared by NAC and gazetted in January 2014. The automotive sector was identified as a strategic industry group in the NIRP due to its large domestic market, labour intensive characteristics, strong industrial linkages, existing installed base, and export potential into the Economic Community of West African States (ECOWAS). NAIDP aims to curtail Nigeria's almost total dependence on imports and to meet a significant proportion of its demand through domestic production. Figure -1 shows the outline of NAIDP, a main part of the new national automotive industry policy.

Source: Compiled by the Survey Team based on NAIDP

Figure -1 Outline of the Nigerian Automotive Development Plan (NAIDP)

Figure-2 shows the implementation schedule of NAIDP and its progress.



Source: Compiled by the Survey Team based on NAIDP and NAC's information

Figure -2 Summary of NAIDP with Implementation Schedule

2.2.2 Priority Issues for Further Promotion

The result of interview with some auto companies shows there remains difficulties or disincentives in the investment in the Nigerian automotive industry. When foreign companies consider investment in the country, the low safety/security level is a big issue because the cost for security measures will becomes high. In addition, it is very difficult to relax the corporate rules on security under the current situation. Insufficient infrastructure development also makes investors hesitate to enter into the market.

Bad road conditions require more transportation cost and low power supply hinders the investment in plants that need stable power supply for production. Foreign investors need clear vision and action on the automotive industry development in the country and strong government commitment on the policy consistency. Such situation may cause negative impact on assembling and delivery and limitation of assembling line that can be installed. This may become disincentive to foreign investors.

According to NAIDP, CKD assembling is expected to start from 2018. However, there is no information about target local contents and local content rate. There is no strategy to develop the local content manufacturers that can meet the quality, cost and delivery and can contribute to the CKD assembling. The existing fiscal measures

provide local assemblers with favoured levies on importation of FBUs. However, the tariff difference is not sufficient to promote investment in local production and assembling because SKD and CKD assembling requires more cost for design and logistics. It might need more than 40 percent difference between the assemblers and non-assemblers. In addition, the incentive to local assembling is applied only for 12 years. Foreign investors may regard the investment as not attractive and remain assembling at DKD or SKD stage.

No control of used car imports, grey imports and smuggling discourage foreign manufacturers from investing in production and assembling in the country because the price of grey-import cars/parts and illegally imported cars are very low. Figure-3 shows the summary of priority issues to be solved/addressed for further promotion of automotive industry development in the country under NAIDP.

Priority Issues	Subsequent Reaction by Industry
Low Safety/Security Level	• Increase costs for security measures • Tighten corporate rules on security (less opportunities for entry into the country)
Insufficient Infrastructure Development	• Increase transportation cost including insurance (due to bad road conditions) • Staying at DKD level (due to lack of power)
Unclear/Abstract Auto Policy	• Staying at DKD level (due to no clear policy and target/goals on local content rate) • Wait until the situation becomes clear
Unattractive Fiscal Measures	• Perceive the measures are insufficient for investment promotion (less tariff difference between import and assembling)
Uncontrolled Used Car Imports, Grey Imports and Smuggling	• Perceive the measures are insufficient for investment promotion

Figure-3 Priority Issues to be Addressed and Its Disadvantages

3. Potential Cooperation Area

3.1 Lessons Learned from Experience of Other Countries

Lessons learned from the history of automotive development policies in other countries show some aspects that need to be considered to realise the objectives of NAIDP. The following are the points:

- CKD with regulation of local content ratio is the starting point.
  - ⇨ Necessity of setting the target of local content ratio with milestones and commitment to support for development of auto parts industry
- Embargo on import of FBUs and auto parts may cause high price of automobiles in the domestic market and lack of international competitiveness.
  - ⇨ Necessity of upgrading the quality of local products to make the local production effective and competitive
- Fiscal measures may result decrease in domestic demand due to higher price.

⇨ Necessity of government support for market development such as financial scheme for purchasing and market analysis and the formulation of formal market for used cars and after-sales services

NAIDP has a 54-month action plan, however, it is very simplified one and not very elaborated. Therefore, foreign assemblers may need to take affirmative action to invest in local assembling in the country. NAIDP must have detailed operational plans and clarify key players and task allocation among the players. Necessary preliminary steps for further implementation of NAIDP are as follows:

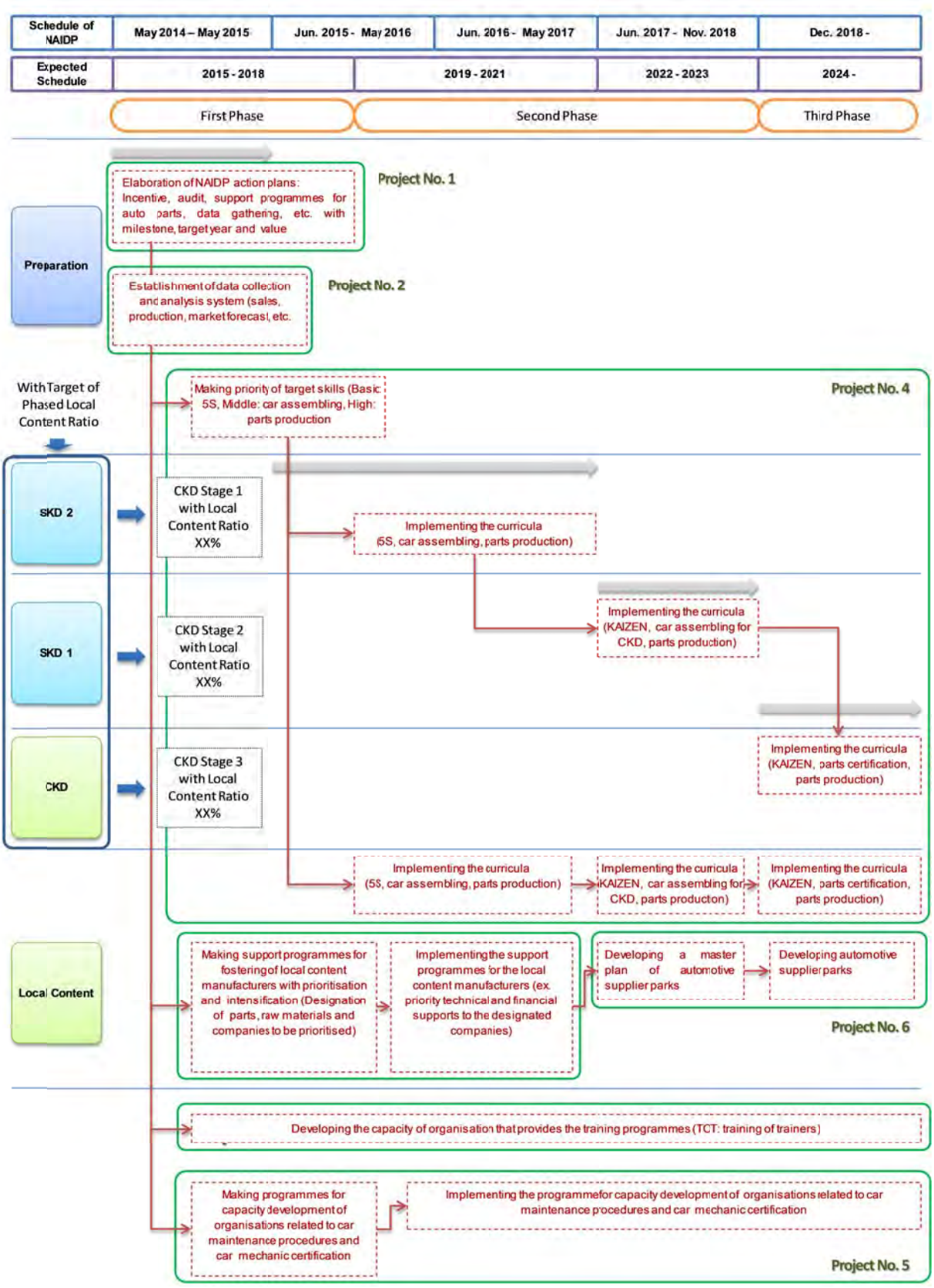
- Developing a master plan of automotive industry development (elaboration of operational plans for NAIDP)
- Developing the data gathering systems to understand the automotive market situation with figures and providing an informative guide to the automotive industry
- Clarifying and allocating tasks of related organisations to execute the master plan of automotive industry development

After the clarification and task allocation, each action must be executed as scheduled and the progress must be monitored by NAC. Table-1 shows the matrix of development phase, assumed action plans to be taken during the NAIDP implementation and possible assistance to each action. The matrix includes the components and development phase of NAIDP, actions to be taken to achieve the goals at each development stage scheduled (assumed based on the contents of NAIDP), and conditions to proceed to the following step for each component. Figure-3 shows the flow of prospective assistance projects with expected implementation schedule. As shown in the figure, the first step to be taken during the first phase is elaboration of NAIDP action plans, followed by establishment of data collection and analysis system to understand the market situation, making support programmes to foster local component manufacturers with prioritisation and intensification, making priority of target skills required at each KD stage and developing the capacity of organisations that provide training programmes of the target skills, and making programmes for capacity development of organisations related to car maintenance procedures and car mechanic certification. After attainment of development of local content industry at certain level, developing a master plan of automotive supplier parks may be started. The prospective assistance projects are classified into six (6) groups as shown in Table-2. The table shows the relation between the potential assistance projects and target activities. The project numbers in the table fall into the "Project No." shown in Figure-4.

Table-1 Matrix of Development Phase and Assistance Required

				Development Stage							
Scenario of Automotive Industry Development		OEM Plants		Preparation		SKD2	Target Volume: 1,000 units or more / year	SKD1	Target Volume: 20,000 units or more / year	CKD	Target Volume: 200,000 units or more / year
		Auto Parts Industry		Preparation		Production and Supply of Spare Parts, Move into Automotive Supplier Parks		Production and Supply of Spare Parts, Move into Automotive Supplier Parks		Supply to OEM Plants	
Components of NAIDP	Industrial infrastructure (Development of Automotive Supplier Parks and Clusters)	- Development of auto parts industry in the clusters (Kaduna-Kano area, Anambra-Enugu area and Lagos-Ogun-Oyo area) - Development of infrastructure to support the auto parts industry in the clusters (Kaduna-Kano area, Anambra-Enugu area and Lagos-Ogun-Oyo area)	Action Plans (assumed)	- Developing a master plan of automotive industry development (elaboration of existing one) including following items, ・Audit system: to make sure related organisations are implementing actions correctly	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Examining operational structure of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Evaluating progress of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Evaluating progress of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN
				・Support programmes for the auto parts industry development	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (Audit/parts industry development: aftermarket auto parts, consumables)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyers, batteries)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyers, batteries)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN
				・Incentive system: more benefit for CKD and using local parts	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (Incentive/fiscal measures)	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (Incentive/fiscal measures) - Modifying the master plan of automotive industry development (Incentive/fiscal measures) if necessary	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (Incentive/fiscal measures) - Modifying the master plan of automotive industry development (Incentive/fiscal measures) if necessary	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN
				-	-	-	-	- Developing a master plan of supplier parks	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC NASENI MAN, NAMA, ALCMAN State Governments	- Developing supplier park(s) based on the master plan	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC NASENI MAN, NAMA, ALCMAN State Governments
				- Studying data gathering systems	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	-Developing and implementing data gathering systems (Data gathering/ analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON
				- Commitment from government about improvement of power supply/road network/security/medical care	Related authorities	-	-	-	-	-	-
			Conditions to proceed to next step	・Complete all plans and commitments ・Some OEM companies decide to start assembly		・More incentives for SKD1 ・Supplying maker qualified aftermarket auto parts and consumables		・More incentives for CKD ・A few applicable suppliers on quality, cost and delivery (QCD) (e.g. Tyers/batteries)		・More incentives for local procurement ・More applicable suppliers on QCD (Other parts)	
			Prospective assistance projects	- Developing a master plan of automotive industry development - Elaborating support programmes for auto parts industry development - Studying data gathering systems		- Promoting the master plan of automotive industry development - Implementing the support programmes for auto parts industry development - Developing and implementing data gathering systems (Data gathering/ analysis/disclosure)		- Developing a master plan of supplier parks - Implementing the support programmes for auto parts industry development		- Developing supplier park(s) based on the master plan	
	Skills Development	- Human resources development programmes in cooperation with OEM investors - Training/Manufacturing centres by ITF - Degree programme in automotive engineering	Action Plans (assumed)	- Making priority of target skills (Basic: 5S, Middle: Car assembling, High: Parts production) - Developing curricula - Developing training centres	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting OEM cooperators - Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (5S/Car assembling for SKD/Aftermarket auto parts and consumable production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Car assembling for CKD/Tyers and batteries production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Parts certification/other parts production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
				- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
			Conditions to proceed to next step	・Complete all items		・Substantial number of trained people (SKD assembly)		・Substantial number of trained people (CKD assembly)		・Substantial number of trained people (Parts certification)	
			Prospective assistance projects	- Developing capacity of organisations that supply the training programmes							
	Standards	- Encouragement of local content manufacturers for quality management system (QMS) certification - Establishment of automotive component testing centres - Capacity development for vehicle inspection and certification	Action Plans (assumed)	- Developing audit systems for implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN
				- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Implementing car maintenance procedures (periodical maintenance)	Lead Agency: State Governments Supporting Agencies: FMITI, NAC, RMRDC, SON MAN, NAMA, ALCMAN
				- Developing the automotive component test centres	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN
				- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Implementing certification system for car mechanic	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
				- Developing supporting programmes for QMS certification	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN
				- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF
			Conditions to proceed to next step	・Complete all items except developing car maintenance procedures and certification systems for car mechanics		・Complete car maintenance procedures and car mechanic certification systems ・A few applicable suppliers on QCD (Aftermarket auto parts/consumables/tyers/batteries)				・More applicable suppliers on QCD (Other parts)	
			Prospective assistance projects	- Developing capacity of organisations related to car maintenance procedures and car mechanic certification - Developing capacity of NAC and other related organisation to utilise auto parts testing for upgrading locally manufactured products							
	Investment Promotion	- Check of smuggling - Change of import duties on vehicles and auto parts	Action Plans (assumed)	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	-	-	-	-
				- Erasing loopholes such as smuggling and tax evasion	Lead Agency: NAC NCS Supporting Agencies: FMITI, FMF	- Erasing loopholes such as smuggling and tax evasion	Lead Agency: NAC NCS Supporting Agencies: FMITI, FMF	-	-	-	-
				- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN
			Conditions to proceed to next step	・Complete all item				・More incentives for local component manufactures			
			Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for investment promotion - Developing capacity of NAC and other related organisations to monitor the measure against smuggling							
	Market Development	- Affordable vehicles programme - Vehicle purchase scheme - Patronage by government and its agencies	Action Plans (assumed)	- Studying, developing and implementing data gathering system (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	- Studying, developing and implementing data gathering system (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	-	-	-	-
				- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments
				- Developing vehicle purchase scheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Financial institutions Supporting Agencies: FMITI, BOI MAN, NAMA	- Developing vehicle purchase scheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Financial institutions Supporting Agencies: FMITI, BOI MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Supporting Agencies: FMITI, BOI MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Supporting Agencies: FMITI, BOI MAN, NAMA
				-	-	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchase scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchasing scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchasing scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI
			Conditions to proceed to next step	・Developing vehicle purchase scheme							
			Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for vehicle purchasing loan							

Source: Prepared by the Survey Team



Note: Project Number shows potential assistance projects to the target activities.
Source: Compiled by the Survey Team

Figure-4 Prospective Assistance Projects and Expected Implementation Schedule

Table-2 Potential Assistance Projects and Target Activities

No.	Potential Assistance Project Name	Target Activities	Remarks
1	Project on Development of Action Plans for Strengthening Automotive Industry	Elaboration of NAIDP action plans: Incentive, audit, support programmes for auto parts, data gathering, etc. with milestone, target year and value	Japan has much experience on this matter.
2	Project on Development of Market Research Systems for Automotive Sector	Establishment of data collection and analysis system (sales, production, market forecast, etc.)	Japan has much experience on this matter.
3	Project on Local Content Industry Development for Automotive Sector	Implementing the support programmes for the local content manufacturers (ex. priority technical and financial supports to the designated companies)	Japan has much experience on this matter.
		Making support programmes for fostering of local content manufacturers with prioritisation and intensification (Designation of parts, raw materials and companies to be prioritised)	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation
4	Project on Capacity Development of Training Centres for Automotive Sector	Making priority of target skills (Basic: 5S, Middle: car assembling, High: parts production	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
		Implementing the curricula (5S, car assembling, parts production)	
		Implementing the curricula (KAIZEN, car assembling for CKD, parts production)	
		Implementing the curricula (KAIZEN, parts certification, parts production)	
		Developing the capacity of organisation that provides the training programmes (TOT: training of trainers)	
5	Project on Development of Vehicle Inspection and Mechanics Qualification Systems	Making programmes for capacity development of organisations related to car maintenance procedures and car mechanic certification	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
6	Project on Development of A Master Plan for Automotive Supplier Park	Developing a master plan of automotive supplier parks	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
		Developing automotive supplier parks	

Source: Prepared by the Survey Team

1. Introduction

1.1 Background

Nigeria has a population of about 170 million people and the largest nominal GDP (US$ 4,517 billion in 2012) in the African continent. However, there are some issues to be solved such as industrial diversification, the development of infrastructure such as roads and power supply, reduction of poverty, and reduction of economic and social disparities as its economic structure depends on the oil and gas sector for a large part of exports and revenue.

The Nigerian Government prepared “the Nigeria Vision 20: 2020” for long-term national development policy in 2009 and “the First National Implementation Plan for NV: 2020 (2010-2013)” in order to strengthen competitiveness, protect and develop the domestic manufacturing industry for economic growth.

A five-year plan by the Federal Ministry of Industry, Trade and Investment, "the Nigeria Industrial Revolution Plan (NIRP)" (published in 2014), aims to increase the GDP share of the manufacturing sector from the current 4% and to 10% in 2017. The automotive industry has been positioned as a strategic sector from the viewpoint of domestic automotive market scale, labour intensity and possibilities of exporting automobiles to the West Africa region. In order to accelerate the realization, the Nigerian Government announced a new national policy for automotive industry in October 2013. In the policy, a ten-year action plan was stated to replace imports comprising 400,000 units of automobiles worth US$3.4billion in 2012 with domestic production.

In February 2014, the Federal Ministry of Finance announced the official notice to raise tariffs for importing automobile products in response to this policy.

The National Automotive Council (hereinafter referred to as “NAC”) formulated the Nigerian Automotive Industry Development Plan (hereinafter referred to as “NAIDP”) and action plans from June 2014 to November 2019 (54 months) and one year preparation period from June 2014 to May 2015. This plan aims at fostering the automotive industry and implementing various measures to attract investment, specifically developing automotive supplier parks in three regions, attracting foreign automobile manufacturers actively, supporting the development of local content manufacturing industry, human resources development on the automotive industry by the up-to-date curriculums, and the establishment of industrial standards for certification of safety and quality of products. By the various efforts that have been driven by these policies, interests of investing by foreign automotive industries are getting higher such as a Japanese company that started the car assembly production in the Nigeria in 2014.

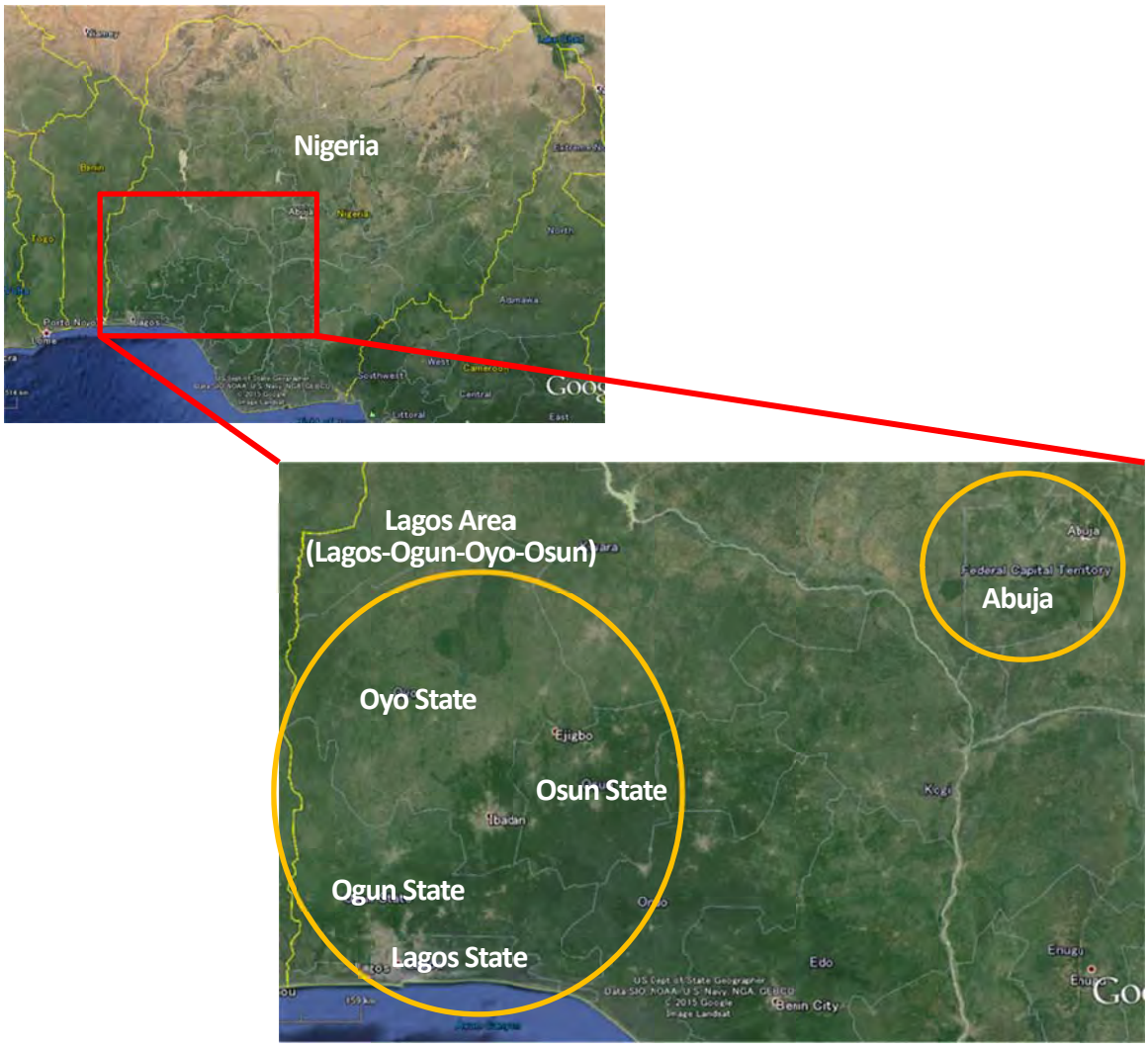
Under such circumstances, the Nigerian Government requested “The Project for Development of Automobile Supplier Parks in Nigeria" to the Government of Japan in July 2014. This requested project is a stepping stone to realise the automotive supplier parks in three regions targeted by the government and includes the formulation of a master plan for the development of the supplier parks in Lagos-Ogun-Oyo State area where the automotive industry has been developed.

1.2 Objective

The objectives of the survey are to analyse the current issues on the development of the automotive industry in Nigeria, including the policy and strategy, institutional framework and progress of development of the automotive industry; to sort out political and technical issues in the promotion of domestic production in Nigeria; and to analyse and make suggestions on the direction of Japan's cooperation in future assistance programmes.

1.3 Survey Area

The survey was conducted around Lagos State where the automotive industry is prosperous, and in Abuja, the federal capital of Nigeria, in order to grasp the comprehensive government approach to automotive industry development. Figure 1.3-1 shows the survey area.



Source: Compiled by the Survey Team based on Google Map

Figure 1.3-1 Survey Area

1.4 Survey Schedule

Table 1.4-1 shows the survey schedule.

Table 1.4-1 Survey Schedule

(1) First Survey in Nigeria

No.	Date	Organization Visited/Activities
1	2 December, 2014	Trip to Abuja
2	3 December, 2014	JICA Nigeria Office National Automotive Council (NAC)
3	4 December, 2014	National Automotive Council (NAC)
4	5 December, 2014	Federal Ministry of Industry, Trade and Investment (FMITI) National Automotive Council (NAC)
5	6 December, 2014	Data analysis
6	7 December, 2014	Data analysis
7	8 December, 2014	Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) National Planning Commission (NPC) Federal Ministry of Industry, Trade and Investment (FMITI) Embassy of Japan
8	9 December, 2014	Nigerian Investment Promotion Commission (NIPC) Standards Organisation of Nigeria (SON) National Office for Technological Acquisition and Promotion (NOTAP) Trip to Lagos
9	10 December, 2014	The Lagos Chamber of Commerce and Industry (LCCI) Equipment Leasing Association of Nigeria (ELAN) Industrial Training Fund (ITF)
10	11 December, 2014	Lagos State Ministry of Economic Planning and Budget Lagos State Ministry of Commerce and Industry Manufacturers Association of Nigeria (MAN)
11	12 December, 2014	JETRO Lagos Office
12	13 December, 2014	Data analysis
13	14 December, 2014	Data analysis
14	15 December, 2014	Site visit: Candidate site of supplier park in Lekki Free Zone (Lagos State) Move to Ogun State Ogun State Government: Ministry of Commerce and industry
15	16 December, 2014	Move to Osun State Osun State Government: Office of Economic Development & Partnership & others Site visit: Candidate site of supplier park in Osogbo Free Zone (Osun State)
16	17 December, 2014	Move to Oyo State Leyland Busan Motors Ltd (Plant in Ibadan) Move to Lagos Manufacturers Association of Nigeria (MAN) Automotive Local Content Manufacturers Association of Nigeria (ALCMAN)
17	18 December, 2014	Automotive Spare parts and Machinery Dealers Association of Nigeria (ASPMDA) Dana Motors Ltd.
18	19 December, 2014	Lagos State Ministry of Transport Leyland Busan Motors Ltd. (Victoria Island Office)
19	20 December, 2014	Data analysis
20	21 December, 2014	Move to Abuja
21	22 December, 2014	Federal Road Safety Corps (FRSC) National Automotive Council (NAC)
22	23 December, 2014	National Automotive Council (NAC) National Planning Commission (NPC) JICA Nigeria Office Embassy of Japan

No.	Date	Organization Visited/Activities
		Leaving for Tokyo
23	24 December, 2014	Leaving for Tokyo
24	25 December, 2014	Arrival in Tokyo

(2) Second Survey in Nigeria

No.	Date	Organization Visited/Activities
1	11 January, 2015	Trip to Abuja
2	12 January, 2015	JICA Nigeria Office National Automotive Council (NAC)
3	13 January, 2015	National Agency for Science and Engineering Infrastructure (NASENI)
4	14 January, 2015	Raw Materials Research and Development Council (RMRDC) African Development Bank Move to Lagos
5	15 January, 2015	Honda Manufacturing (Nigeria) Ltd. (Ota, Ogun State) Honda Automobile Western Africa Ltd. (HAWA)
6	16 January, 2015	Kewalrams Chanrai Nigeria Ltd.
7	17 January, 2015	Data analysis
8	18 January, 2015	Data analysis
9	19 January, 2015	Nishizawa (Nigeria) Ltd. Toyota (Nigeria) Ltd.
10	20 January, 2015	Manufacturers Association of Nigeria (MAN) Nigerian Automotive Manufacturers Association (NAMA) Automotive Local Content Manufacturers Association of Nigeria (ALCMAN) Move to Abuja
11	21 January, 2015	JICA Nigeria Office Nigerian Customs Service (NCS) National Automotive Council (NAC) Federal Ministry of Industry, Trade and Investment (FMITI)
12	22 January, 2015	National Automotive Council (NAC) Embassy of Japan Leaving for Tokyo
13	23 January, 2015	Leaving for Tokyo
14	24 January, 2015	Arrival in Tokyo

(3) Third Survey in Nigeria

No.	Date	Organization Visited/Activities
1	6 June, 2015	Trip to Abuja
2	7 June, 2015	Trip to Abuja Preparation of workshop
3	8 June, 2015	JICA Nigeria Office National Automotive Council (NAC)Preparation of workshop
4	9 June, 2015	Federal Ministry of Industry, Trade and Investment (FMITI) National Automotive Council (NAC)
5	10 June, 2015	Workshop
6	11 June, 2015	National Automotive Council (NAC) JICA Nigeria Office Embassy of Japan
7	12 June, 2015	National Automotive Council (NAC)Leaving for Tokyo
8	13 June, 2015	Leaving for Tokyo
9	14 June, 2015	Arrival in Tokyo

2. Current Situation and Challenges of Automotive Industry in Nigeria

2.1 Automotive Industry in Nigeria

2.1.1 History of Automotive Industry Development

(1) Import Substitute

The automotive industry in Nigeria started in local assembly production by private companies in the 1960s. Peugeot (France) and Volkswagen (Germany) started production of passenger cars and minibuses in 1975 as state-owned factories that were led by the Nigerian Government and after that in 1980s, Leyland (British), Steyr (Austria), MB-Anammco (Mercedes Benz) and National Truck Manufactures (Fiat) started the local assembly of buses, tractors, trucks and light commercial vehicles (see Table 2.1-1). According to the NAC's information, maximum production capacity was around 60,000 units per year and the ratio of local contents in terms of value was 38 percent at that time.

Table 2.1-1 Automotive Industry in Nigeria (1970s and 1980s)

No.	Plant	Year Started	Products	Annual Capacity
1	Peugeot Nig. Ltd.	1975	Cars, Mini-buses	63,000
2	Volkswagen of Nig. Ltd.	1975	Cars, Mini-buses	45,000
3	Leyland Nig. Ltd.	1980	Light commercial vehicles , Mini-buses	7,500
4	MB-Anammco	1980	Trucks, Buses	7,500
5	National Trucks Manufactures Ltd.	1980	Trucks, Buses, Tractors	13,000
6	Steyr Nigeria Ltd.	1980	Trucks, Buses, Tractors	13,000

Source: NAC, Presentation material for the Nigerian Automotive Summit

According to evaluation of the partnership between the Nigerian Government and foreign assemblers by the National Office for Technological Acquisition and Promotion (NOTAP), the following results were found (Source: Technology Acquisition by the Nigerian Automotive Industry):

- Technology transfer between the foreign assemblers to local manufacturers was limited. The licensing agreements did not cover design and engineering capabilities that underline the ability to modify and innovate.
- Assembly operations did not address the ability to manufacture major components of vehicles such as engine, chassis and transmission.
- Cost of local components and substitution for imported CKD parts was higher than the original CKD parts.
- There was no concrete plan on how to achieve the deletion target of 30 percent for local contents
- The assembly plants refused to incorporate the majority of auto parts locally produced as they did not meet the quality standards.

- The foreign assemblers did not give advice to the auto parts manufacturers on how they would improve the quality of their products.

(2) Policy Change (Structural Adjustment)

Although the number of companies has been increasing, the automotive industry has not grown as expected due to 1) nonexistence of its automotive industry development policy, 2) a drop in demand for automobiles due to the economic conditions in 1980s and 1990s, 3) insufficient supporting policy measures by the government and 4) no consistency in the protection policy. Especially, devaluation of the currency, deregulation and decrease in import tariff caused drop-off in profits for the domestic manufacturers. Such policy change was a response to the instructions by IMF in 1980's. As a result, the domestic automotive industry went into decline in the 1980s and 1990s due to the influx of technologically advanced cars from abroad and used cars, which made it impossible for the domestic assembly plants to compete. Inconsistent policy of the government involvement was another obstacle for the auto industry in the past. Although these companies were privatized in 1990s, they were nationalized again soon after by the military regime. The privatization policy has since been re-introduced. All of the state-owned factories that were founded in the 1970's and 1980's by the Nigerian Government, were privatised in 2007. As investors experienced such frequent policy changes previously, the policy consistency is one of the investors' major concerns when investing in Nigeria. In addition, the privatisation may change the decision making process of the manufacturers concerning, reduction in operation, closing-down of factories or withdrawal from the country, that considers impact of the economic situation more seriously. According to the PAN's information, the reasons why they were able to continue the business even in an economically unfavourable period are 1) established network of local automotive parts suppliers for the assembly, 2) popularity of Peugeot cars, 3) availability of spare parts, and 4) strong network of dealers and dealer garages.

Table 2.1-2 shows the situation of the automotive industry before introduction of the new national policy. However, there is no information about the current production level of each manufacture except for PAN Nig. Ltd.

Table 2.1-2 Automotive Industry in Nigeria (2013)

No.	Plant	Area	Products	Annual Capacity
1	ANAMMCO	Enugu	Trucks, buses	5,000
2	GM Nig. Ltd.	Lagos	Trucks, buses	5,00
3	Innoson Vehicle Mfg. Co.	Nnewi	Pickups, buses, trucks	10,00
4	Iron Products Industry (IPI)	Lagos	Trucks, tanker bodies, buses	400
5	Leventis Motor Ltd.	Ibadan	Trucks, buses	5,000
6	Leyland-Busan Ltd.	Ibadan	Trucks, buses	5,000
7	NTM Nig. Ltd.	Kano	Trucks, buses	5,000
8	PAN Nig. Ltd.	Kaduna	Cars, buses	25,000
9	Proforce Ltd.	-	Armoured vans, jeeps	420
10	Steyr Nig. Ltd.	Bauchi	Trucks, buses	5,000
11	VON Nigeria Ltd.	Lagos	Cars, light commercial vehicles, SUVs, buses	39,000
12	Zahan Auto Co. Nig. Ltd.	Lagos	Pickups	5,000

Source: NAC, Presentation material for the Nigerian Automotive Summit

As a result of the failure of technology transfer to the local manufacturers and the policy change, the automotive industry in Nigeria went into decline.

The National Automotive Policy was developed in 1993 to ensure the survival, growth and development of the Nigerian automotive industry using local human and material resources. The plan was composed of nine elements: 1) provision of automotive vehicles for urban and rural areas, 2) accelerated technological development of Nigerian economy, 3) increased employment opportunities for Nigerians, 4) conservation of scarce foreign exchange, 5) establishment of integrated automotive industry in Nigeria, 6) standardisation and rationalisation of the Nigerian automotive industry, 7) increased private sector participation in the establishment of the auto industry, 8) technology acquisition, and 9) creation of a conducive operational environment through the introduction of appropriate fiscal and monetary incentives. NAC was set up as a responsible body to implement the national automotive policy. However, according to the annual report 1999, NAC continued to suffer severe financial constraints due to lack of funding and could not undertake most of programmes and projects.

2.1.2 Position of Automotive Sector in the National Development Plan

(1) Nigeria Vision 20:2020

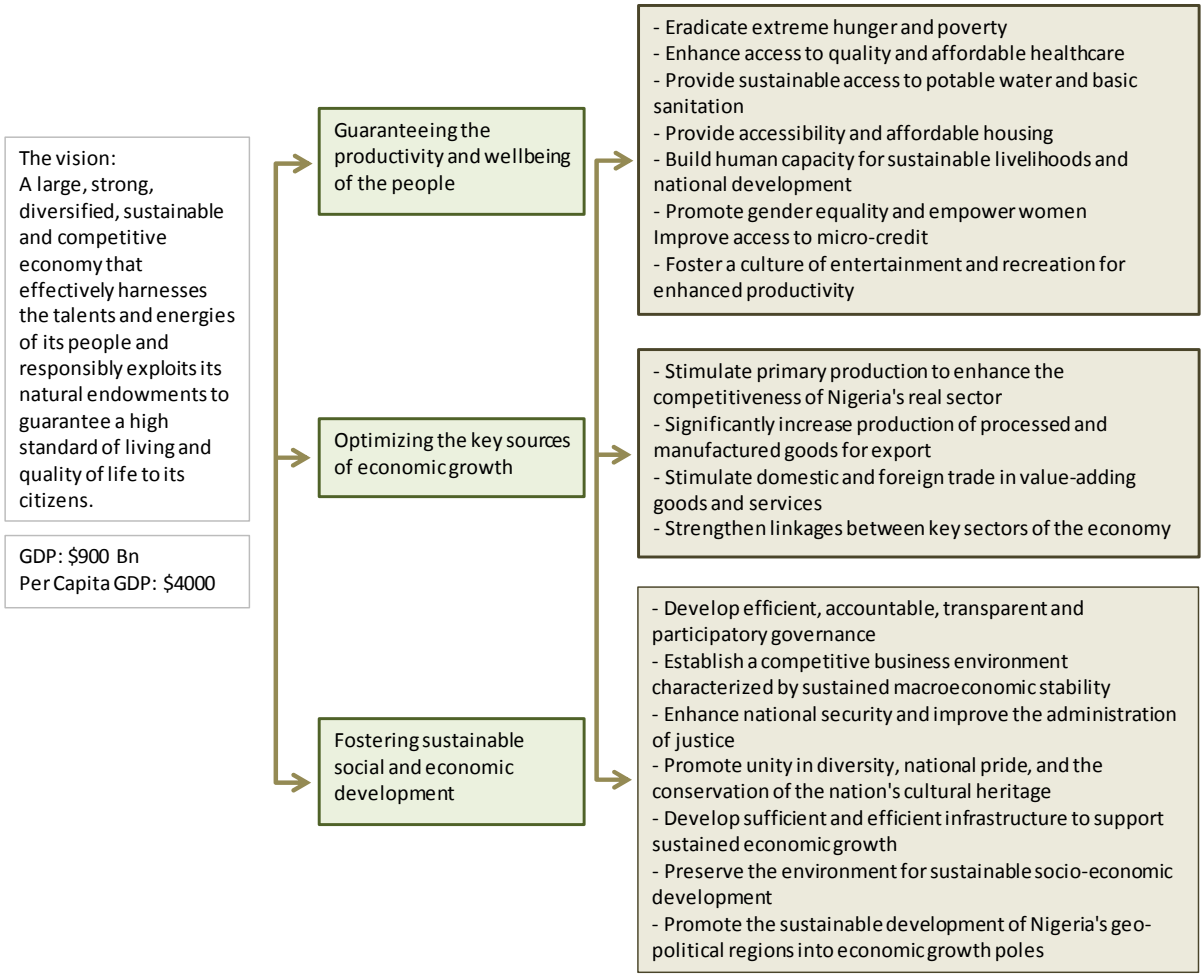
Nigeria Vision 20: 2020 is the long-term national development plan that aims at launching Nigeria onto a path of sustained social and economic progress and accelerating the emergence of a truly prosperous and united Nigeria. The vision states that by 2020, Nigeria will have a large, strong, diversified, sustainable and competitive economy that effectively harnesses the talents and energies of its people and responsibly exploits its natural endowments to guarantee a high standard of living and quality of life to its citizens.

The Vision 20:2020 has three pillars that represent the building blocks of the future that Nigerians desire. The key strategic objectives of these pillars are shown in Figure 2.1-1. The second pillar, "Optimizing the key sources of economic growth", includes the industrial development strategy such as industrial cluster development. The strategy focuses on the development of both the manufacturing and processing industries.

The development of the automotive industry would contribute to promotion of this strategy.

The strategy also states as follows:

> *Establishing clusters is a capital intensive venture and the major role of government would be addressing the large infrastructural deficit and investing heavily in relevant transportation networks and infrastructure for the manufacturing and processing industry. The government should pursue Public Private Partnerships (PPP) and attract private sector investment by offering low interest, long term funding or specially targeted funds.*



Source: Nigeria Vision 20:2020

Figure 2.1-1 Outline of the Nigeria Vision 20:2020

(2) Nigeria Industrial Revolution Plan

The Nigeria Industrial Revolution Plan (NIRP) released in January 2014, is a five year plan to rapidly build up industrial capacity and improve competitiveness in Nigeria. The NIRP was developed by the Federal Ministry of Industry, Trade, and Investment, with inputs from other government agencies and private sector. According to the NIRP, in recent years, the sector's share of GDP has remained less than 4 percent, contributions to foreign exchange earnings have been minimal, and the share of employment and government revenue generated have been low. The NIRP aims to increase manufacturing's contribution to GDP from 4 percent today, to 6 percent (7 percent after revaluation) by 2015, and finally above10 percent by 2017.

The NIRP has evaluated areas where Nigeria has some level of regional or international comparative advantage. The criteria used for selecting the focus sector groups are 1) existing skills and installed capacity, 2) natural endowments, 3) competitive cost base, 4) labour intensity, 5) potential for linkages with other industries, 6) local and regional demand and 7) ability to export to developed markets. Based on the evaluation criteria, the following four sectors were selected as strategic sectors as shown in Figure 2.1-2.

- Agro allied sectors

- Metals & solid minerals related sectors
- Oil & gas related industries
- Construction, light manufacturing and services

Source: Nigeria Industrial Revolution Plan,

Figure 2.1-2 Outline of the Nigeria Industrial Revolution Plan

The auto assembly is included in the second group, "Metals & Solid Minerals Related Sectors", that will contribute to building a competitive advantage around high-value high-volume products further down the value-chain. Table 2.1-3 shows the sectorial plan on the auto assembly.

Table 2.1-3 NIRP Sectorial Plan for Auto Assembly

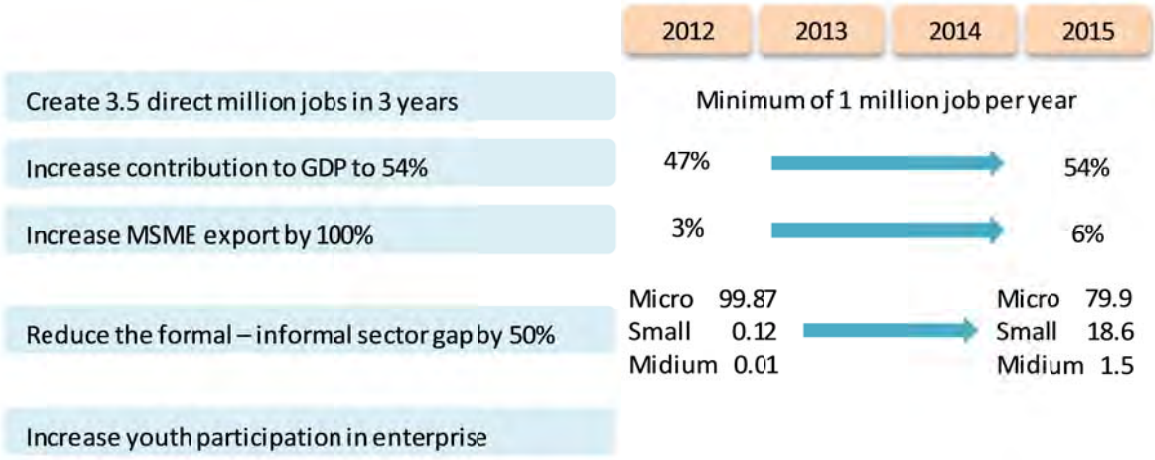
Scope	Automobile assembly and component manufacturing in Nigeria - OEM assembly operations - Welded parts, electronics, radiator, cables, filters, brake pads/linings, windscreens, side glasses, fibre-glass parts, paints, glass works, upholstery leather works, cast and machined parts, plastic works.
Action Items (first phase):	• Adopt fiscal and non-fiscal measures to promote auto sector development • Develop auto supplier parks • Promote local patronage of made in Nigeria cars • Develop auto skills centres in partnership with international technical skills institutions • Facilitate anti-smuggling measures such as integration of vehicle registration systems • Attract at least five international OEMs into the country

Source: Nigeria Industrial Revolution Plan,

(3) National Enterprise Development Programme

The National Enterprise Development Programme (NEDEP) is a holistic plan that cuts across all tiers of enterprise and provides the tools to help enterprises grow from micro to small, small to medium and medium to large. According to the NEDEP, currently, there are 17,284,671 micro, small and medium enterprises (MSMEs) in Nigeria. Those enterprises are mostly located in Lagos and Kano which can be attributed to their large population density. NEDEP aims to create a minimum of 1million jobs annually by strengthening the

existing micro, small and medium enterprises (MSMEs) in the country and making them employers of labour and by creating new and sustainable enterprises in the country. Figure 2.1-3 shows the target year and figures for each goal item.



Source: Compiled by the Survey Team based on NEDEP,

Figure 2.1-3 Target and Goals of NEDEP

NEDEP will address the barriers to growth of the MSMEs and function as the catalyst for increased economic performance of these enterprises. The automotive industry can contribute to the MSMEs development through the value chain. To achieve the objectives of NEDEP, a priority agenda has been developed as follows:

(i) Strengthening institutional framework
(ii) Developing a revised national policy on MSME
(iii) Implementation of a robust delivery and monitoring structure
(iv) Increasing access to affordable finance
(v) Increasing access to markets
(vi) Developing business development skills
(vii) Developing technical skills
(viii) Promoting youth inclusion
(ix) Reducing high operating costs

The components are classified in to three categories: the provision of business development services (BDS), entrepreneurship training and core craft skills acquisition and access to affordable finance. Programmes under those components are provided by three organisations: The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) for BDS, the Industrial Training Fund (ITF) for skills training and the Bank of Industry (BoI) Nigeria for finance.

Sensitisation/needs assessment, baseline survey and value-chain analysis have been conducted in all the 36 states and federal capital territory. State councils on MSMEs in Kano, Edo, Ogun, Kogi, Kaduna, Ebonyi, Bayelsa, Enugu, Ekiti, Bauchi and Taraba states have been inaugurated. However, in the process of NEDEP,

SMEDAN has encountered the following implementation challenges:

- Lack of adequate funding
- Lack of access to affordable finance by MSMEs
- Lack of adequate buy-in by state and local government councils
- Lack of belief and support for the programme by MSMEs operators
- Lack of total buy-in and support

According to the SMEDAN's information, the following achievements are identified under NEDEP implementation (as of December 2014):

- 55,605 cooperative societies were formed and registered.
- 7,568 business plans from various cooperative societies were forwarded to BoI, Bank of Agriculture and microfinance institutions for appraisal and access to finance
- 340,560 new jobs created

(4) Major Challenges of the Nigerian Automotive Industry

According to the NIRP, about 400,000 vehicles are imported into the country every year: 100,000 new cars and 300,000 used cars. The total import bill is estimated at NGN 550 billion in 2012 (~US$3.5 billion). This amount excludes the costs of vehicle parts. In addition, it is said that about 10 million cars currently exist on Nigerian roads. This means that there is a huge market for local parts and accessories manufacturing and replacements in the country. The specific sectorial challenges of Nigeria's automobile sector are as follows:

- Lack of fiscal measures such as restriction of import of fully built units (FBU)
- Poor local patronage (lack of adequate patronage by the public and private sectors)
- Lack of measures to control the importation of used vehicles
- Unequipped auto clusters and support infrastructure
- Small scale of operators
- Other structural barriers such as high cost of power, tough investment climate, inadequate skills, high cost of funding, and low finished goods standards

As for the fiscal measures, the Nigerian government has started the new duties on the importation of new FBUs. However, the duties on the importation of used vehicles have not been increased. Controlling the importation of used vehicles, smuggling and grey imports is very crucial to foreign manufacturers to decide investment in local assembly plants in the country. In addition to the control of used vehicle importation, introducing financial instruments such as auto loans with low interest rate are necessary to enable households to purchase new vehicles assembled in the country. Inadequate infrastructure development, such as power supply and road network, is also one of the big issues from the viewpoint of investors and plant operators. The following are the issues of automotive industry in Nigeria from the viewpoint of auto assemblers:

- Lack of measures to control the importation of used vehicles and grey imports

- Lack of financial instruments that support purchase of new cars assembled in the country
- Lack of market information such as statistics of production and sales of vehicles
- Lack of local content suppliers that can contribute to cost reduction
- Uncertainty about policy consistency
- Uncertainty about time schedule of policy realisation

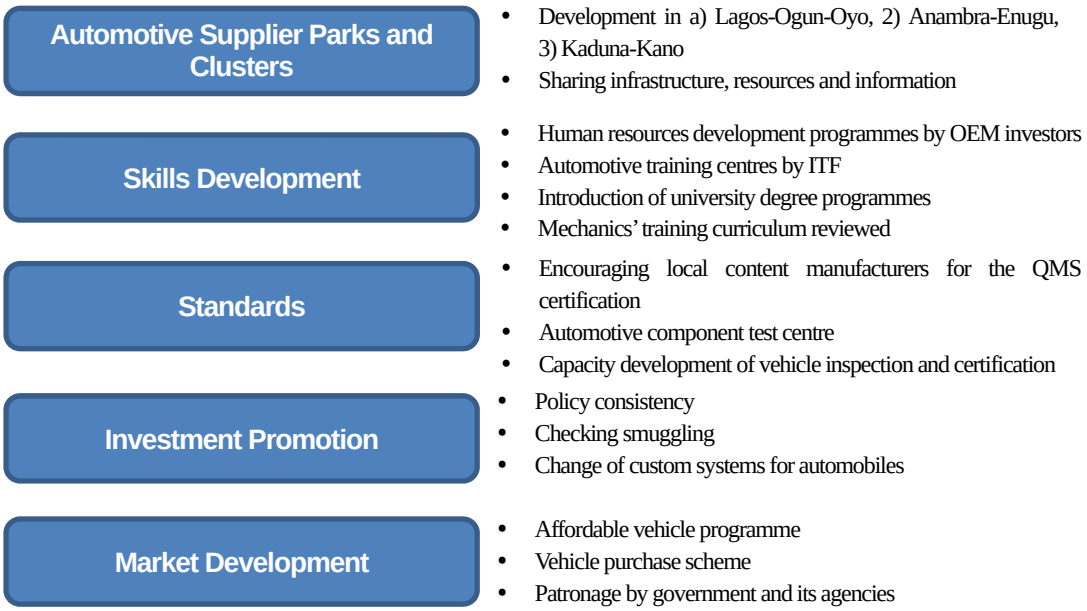
More detailed analysis on the major challenges is discussed in Subsection 2.2.3 Priority Issues for Further Promotion.

2.2 Nigerian Automotive Industry Development Plan

2.2.1 Outline

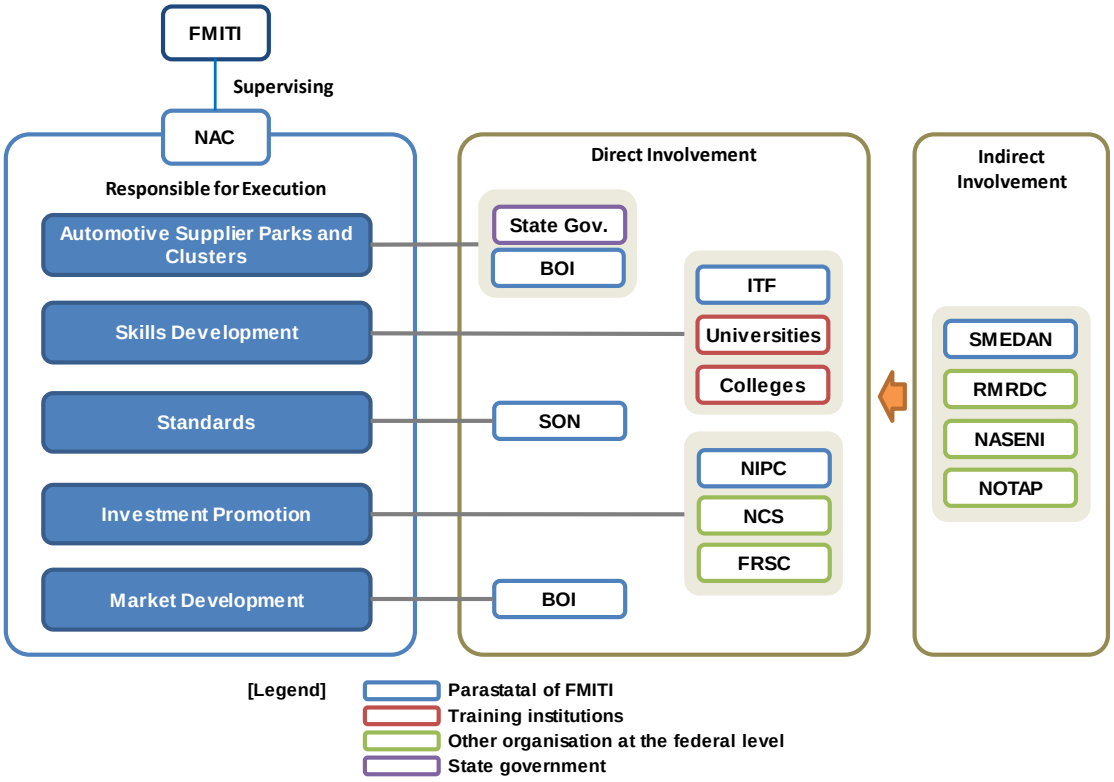
The Nigerian Automotive Industry Development Plan (NAIDP) was prepared by NAC and gazetted in January 2014. The automotive sector was identified as a strategic industry group in the NIRP due to its large domestic market, labour intensive characteristics, strong industrial linkages, existing installed base, and export potential into the Economic Community of West African States (ECOWAS). NAIDP aims to curtail Nigeria's almost total dependence on imports and to meet a significant proportion of its demand through domestic production. NAIDP was prepared in collaboration with the Federal Ministry of Industry, Trade and Investment and the Federal Ministry of Science and Technology with cooperation of the Presidential Advisory Committee. A consultant from the Republic of South Africa, who was engaged in the implementation of automotive industry development policy, participated in the committee and gave advice to NAC for the preparation of NAIDP. It might be inferred that South African companies related to the automotive industry try to get business opportunities in Nigeria based on the background of NAIDP preparation.

Figure 2.2-1 shows the outline of the Nigerian Automotive Industry Development Plan (NAIDP), a main part of the new national automotive industry policy. NAIDP has five key components: 1) Automotive Supplier Parks and Clusters, 2) Skills Development, 3) Standardisation, 4) Investment Promotion and 5) Market Development. Figure 2.2-2 shows organisations related to the execution of NAIDP.



Source: Compiled by the Survey Team based on NAIDP

Figure 2.2-1 Outline of the Nigerian Automotive Development Plan (NAIDP)



Source: Compiled by the Survey Team based on NAIDP

Figure 2.2-2 Components of NAIDP and Related Organisations

(1) Industrial Infrastructure

Automotive supplier parks and clusters are where industries can share infrastructure, resources, information, knowledge and technical expertise. The supplier park development is expected to reduce production costs due to inadequate infrastructure and high logistics costs and attract investment in local content production. Figure 2.2-3 shows the three existing clusters that will serve as parks: 1) Kano-Kaduna Area (Kano State and Kaduna State), 2) Enugu-Anambra Area (Enugu State and Anambra State) and 3) Lagos Area (Lagos State, Ogun State, Oyo State and Osun State). States governments work together with NAC for land acquisition and issuance of certificate of occupancy. The role of the state governments is to streamline the land acquisition process and the land acquisition cost itself is borne by NAC. As NAIDP is the national policy, the state governments do not play a leading role in the policy execution, except for the land acquisition process of candidate sites for the development of automotive supplier parks.

According to the National Automotive Policy Implementation Plan, March 2013, conditions of automotive supplier parks are as follows:

- Covering from 10-50 square kilometres (1,000-5,000 ha) near a major city
- An independent power unit up to 20-100 MW, high volume gas lines, water supply/sewerage treatment
- Internal road network and major road links to the highways, rail links where possible, near a port where possible, airport within 100 km radius
- High end communication cables, administrative and business centre, security
- Universities/polytechnics within 200 km radius

Source: Compiled by the Survey Team based on Google Map

Figure 2.2-3 Existing Automotive Clusters that will Serve as Parks

(2) Skills Development

It is planned that NAC will work with pioneer original equipment manufacturing (OEM) investors to fill skills gaps in auto operations, by ensuring that all lower skilled and mid-skilled roles are immediately filled by Nigerians, and with concrete plans to staff high-skilled positions with Nigerians over first four to six years. In order to achieve this, the Industrial Training Fund (ITF) and NAC have the following training programmes:

- Establishing training/manufacturing centres
- Providing manpower training for maintenance and repair, operations, design and development
  - Curriculum for a degree programme in automotive engineering in universities
  - New curriculum and training manuals for teaching automotive mechanics

(3) Standards

NAC has been working with the Standards Organization of Nigeria (SON). Nigerian assembly plants are also required to have ISO 9001 quality management systems (QMS) certification within two years of start of operations. Local content manufacturers would be encouraged and assisted to produce good quality items and obtain ISO quality certification. NAC has a plan to build automotive component test centres where automotive products can be tested to ensure conformity with standards and vehicle homologation. Until the local capacity of homologation is developed, a certificate from the country of origin issued by the relevant agency is required

for all the vehicles.

The current vehicle road worthiness inspection system will be reviewed/revamped as the vehicle inspection is a procedure mandated by national or sub-national governments in many countries from the viewpoint of conformity to regulations governing safety and emissions.

(4) Investment Promotion

In order to attract investors, the following measures are being mounted:

- Fiscal measures
- Checking smuggling
- Policy consistency by government through legislation

The NAIDP sets tariffs at a maximum of 70 percent (35percent duty plus 35 percent levy) for fully built cars and 35 percent duty without levy for commercial vehicles in the first phase. This level will decrease as the sector grows and becomes more competitive. Completely knocked down parts (CKD) and semi-knocked down parts (SKD) for assembling will be charged 0 percent and 5-10 percent duty. As an incentive measure, local manufacturing operations are allowed to import fully built cars without the levy and commercial vehicles at 20 percent in proportion to their local production as detailed in Table 2.2-1. Tariffs on these inputs will increase as well once local manufacturing capacity strengthens. The objective of this policy is to establish vehicle assembly plants that source many of their content locally. An assembly plant may start operations with SKD 2 assembly and move to SKD 1, CKD and finally assembly operations, or skip some of the phases. The maximum time to move from SKD 2 to full assembly is 54 months. Table 2.2-2 shows the CKD and SKD definitions in the original plan. The SKD 2 was separated into two phases in the original plan, but currently, the SKD 2 is integrated into one phase.

Table 2.2-1 Key Fiscal Drivers of 10-Year NAIDP

Year	Objective	Incentive	Remarks
2013-2015	Create an environment to allow existing assembly plants to survive and attract other OEMs	(i) Cars: Levy of 35% charged on car FBU in addition to 35% duty. (ii) Commercial vehicles: Levy of 35% duty without levy. (iii) Tariff on CKD, SKD1 and SKD2 at 0%, 5% and 10% local assembly plants. (iv) Assembly plants to import FBU at 35% and 20% duty without levy for cars and commercial vehicles respectively in numbers equal to twice their imported CKD/SKD kits.	The levy to be used for the development of the automotive industry, including the creation of automotive supplier parks, an affordable vehicle financing scheme and a credit guarantee scheme. Assembly plants and NAC to develop and implement a local content incorporation programs
2016-2018	Create an environment to allow existing assembly plants to grow and continue to attract other OEMs, in particular, local content suppliers	(i) to (iv) as above (v) Concessionary FBU import by assembly plants to be equal to their CKD/SKD imports	As above. The assembly plants to intensify the implementation of local content programmes.

Year	Objective	Incentive	Remarks
2019-2024	Institute incentive for local content incorporation	(i) Levy on car FBU reduced to 20%. Tariff remains at 35%. (ii) Duty on CV FBU remains at 35% without levy. (iii) Tariff on CKD, SKD1 and SKD2 remain at 0, 5% and 10% respectively. (iv) Concessionary FBU import by Assembly plants to be up to half of their imported CKD/SKD kits.	-

Source: NAIDP

Table 2.2-2 Development Phase and Definition

Phase	Definition by Equipment	Process	Strategy Note
SKD 2 PHASE I	Assembly line, miscellaneous tools Wheel alignment tester, Turning radius tester, Head light tester, Side slip tester, Speedometer tester, Brake dynamometer and Shower testing	Vehicle cabin fully trimmed, painted and seats, dashboard and accessories installed. The other aggregates are loose and are assembled on chassis on assembly line.	This is a relatively light level of investment. The difference between this and Phase II is that this allows for disassembled kits to come in for a period of time.
SKD 2 PHASE II	Paint booth, oven & assembly line, Conveyor line, miscellaneous tools Wheel alignment tester, Turning radius tester, Head light tester, Side slip tester, Speedometer tester, Brake dynamometer and Shower testing	Car body is fully painted and glazed. The engine, gearbox, axles, suspension, driveshaft, steering, seats, tyres, batteries, exhaust system, electrical, etc. are supplied as individual units for assembly in Nigeria	The key difference between this and SKD 1 below is that there is no need to invest in a paint shop.
SKD 1	Conveyors for paint line, oven & assembly line, Conveyor line, miscellaneous tools Wheel alignment tester, Turning radius tester, Head light tester, Side slip tester, Speedometer tester, Brake dynamometer and Shower testing	Car body is unpainted, but coated/ phosphated. The engine, gearbox, axles, suspension, driveshaft, steering, seats, tyres, batteries, exhaust system, electrical, etc. are supplied as individual units for assembly in Nigeria.	This means that the 'body in white' is imported and a paint shop is needed to paint the vehicle.
CKD	Welding guns, Jigs, Templates, Metrology Equipment (3-D measuring machines), etc. Conveyors, paint tanks, paint both, drying oven, etc. assembly line. Wheel alignment tester, Turning radius tester, Head light tester, Side slip tester, Speedometer tester, Brake dynamometer and Shower testing	Body sides, Roof and Floor pan are supplied loose for final welding and final assembly. The engine, gearbox, axles, suspension, driveshaft, steering, seats, tyres, batteries, exhaust system, electrical, etc. are supplied as individual units for assembly in Nigeria.	All materials supplied loose for final welding and final assembly or raw body shell and all other parts loose and not assembled

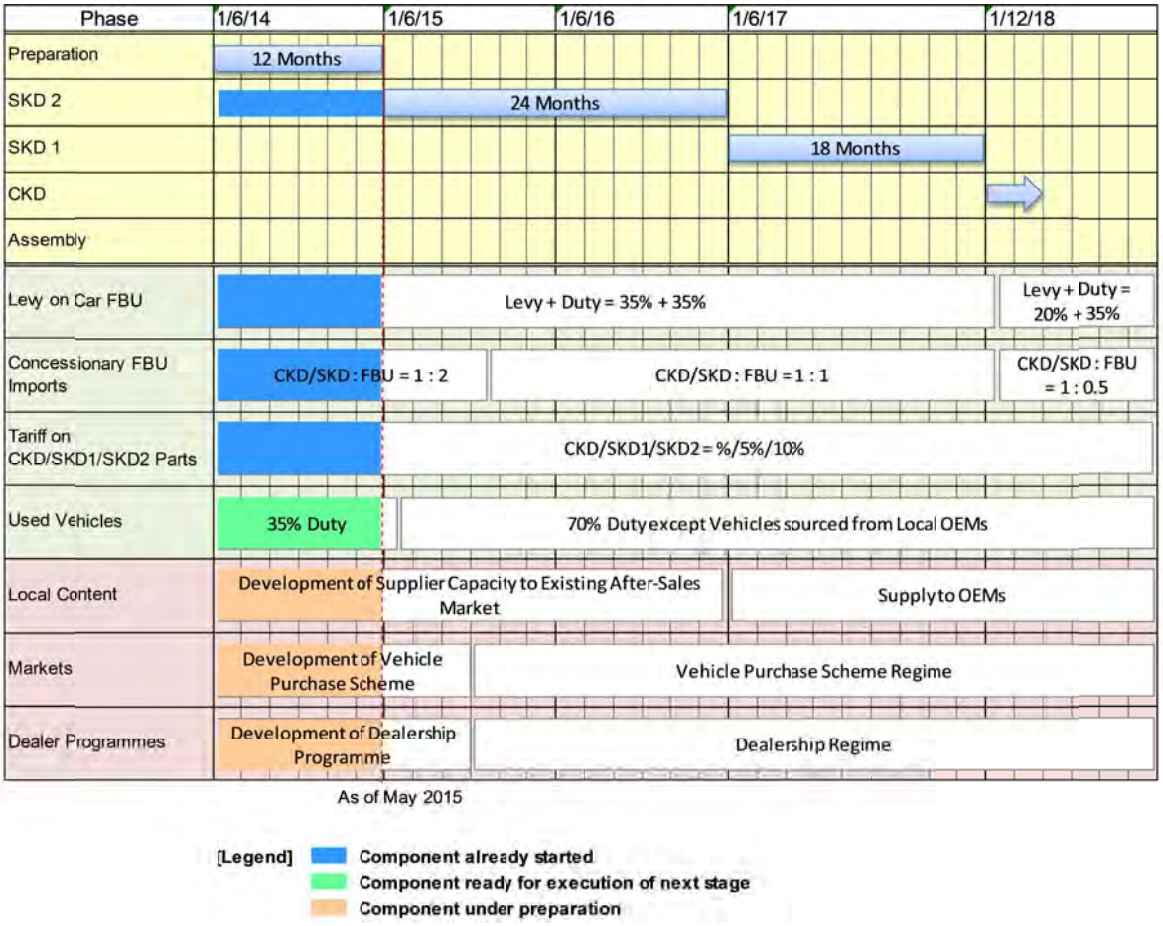
Source: NAIDP

As for the checking of smuggling, it is noted in NAIDP that the Federal Road Safety Commission (FRSC) and the Nigerian Customs Service (NCS) cooperate in cracking down on the smuggling of automobiles. Registration of the vehicles and distributors through registering system from the NAC website has been promoted as a smuggling prevention measure. In addition, the import tariff systems were changed to attract investment in manufacturing in Nigeria. The tariff rate is high for imports of finished vehicles and low for the imports of machinery and assembly parts for OEM plants. Similarly, the tariff rate for tyre manufacturing has been set to encourage the domestic production.

(5) Market Development

In addition to address the supply side issues of automotive industry, it is necessary to provide measures to drive the demand side. Some Nigerian commercial banks have established vehicle purchase credit to support consumers. However, the annual interest rate of such financial instruments ranges 20 to 26 percent and it depends on the individual situation of credit (balance in bank account). Easy access to cheap and medium term funds for the purchase of new cars assembled in the country is the scheme required to promote the automotive industry in the country.

Figure 2.2-4 shows the summary of NAIDP with implementation schedule and progress of each component. Details of the progress are described in the following subsection.



Source: Compiled by the Survey Team based on NAIDP and NAC's information

Figure 2.2-4 Summary of NAIDP with Implementation Schedule

2.2.2 Progress of NAIDP

(1) Infrastructure Development

Automotive Supplier Parks

The three existing auto-clusters in Nigeria, namely Lagos-Ogun-Oyo, Kaduna-Kano and Enugu-Anambra, are strategic locations of the automotive supplier park development. Lagos-Ogun-Oyo and Osun is the target area of the survey and the current situation of two states, Lagos State and Osun State are as follows:

[Lagos State]

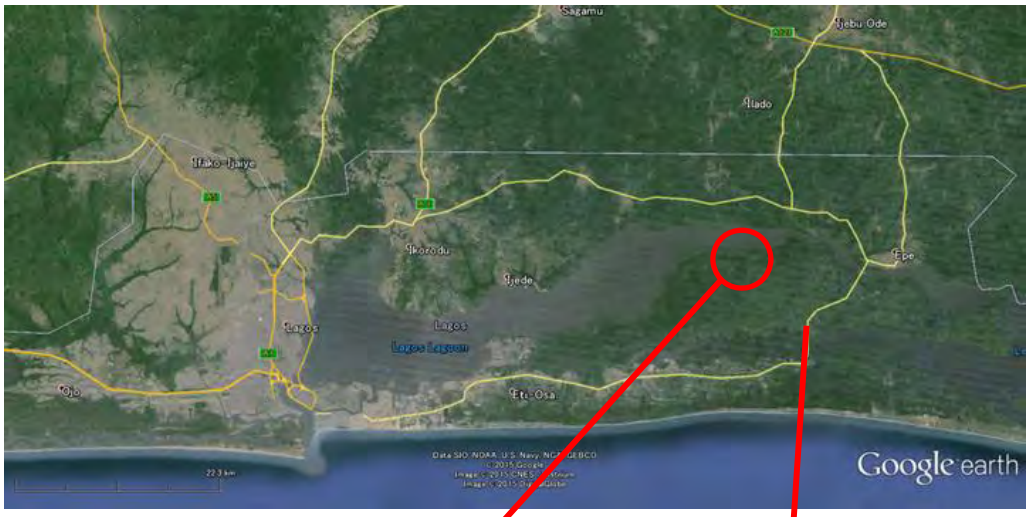
Current conditions of the candidate site:

- NAC has not coordinated with the Lagos State Ministry of Commerce and Industry on the selection of candidate site.
- The candidate site is located adjacent to a new airport that is under construction, however, the zone development in the surrounding area has not been commenced.
- It takes more than one hour from Lekki Expressway to get there due to dirt trail.
- The state government is interested in NAIDP, but they do not have any plans to develop automotive industry in response to the introduction of NAIDP because the policy implementation is not at the state level but at the national level.
- The state government has a view that if OEM plants are constructed in Lekki Free Zone, they might have advantage in terms of logistics because a new airport and sea port will be developed in the zone.

Evaluation:

- As the state government described, the location is strategic in terms of logistics and the proximity to the city centre of Lagos. It takes only one and half an hours from Victoria Island.
- However, the area itself is still undeveloped. There is no infrastructure such as access roads, water supply and power supply systems. As most of adjacent sites are being developed as housing estates, environmental consideration might become serious. This situation may not be attractive to investors because of its risk on potential environmental impact on the housing estate and huge investment in development of infrastructure and facilities.
- Currently, the site is owned by an individual. This means that the land acquisition cost may become higher than other area and the negotiation process may take time.

Figure 2.2-5 shows the location of candidate site in Lagos State. The candidate site in Lagos State is located in Lekki Free Zone.



Surrounding Area of the Candidate Site

Access Road from Lekki Expressway

Source: Compiled by the Survey Team based on Google Earth

Figure 2.2-5 Candidate Site of Automotive Supplier Park in Lagos State

[Osun State]

Current conditions of the candidate site:

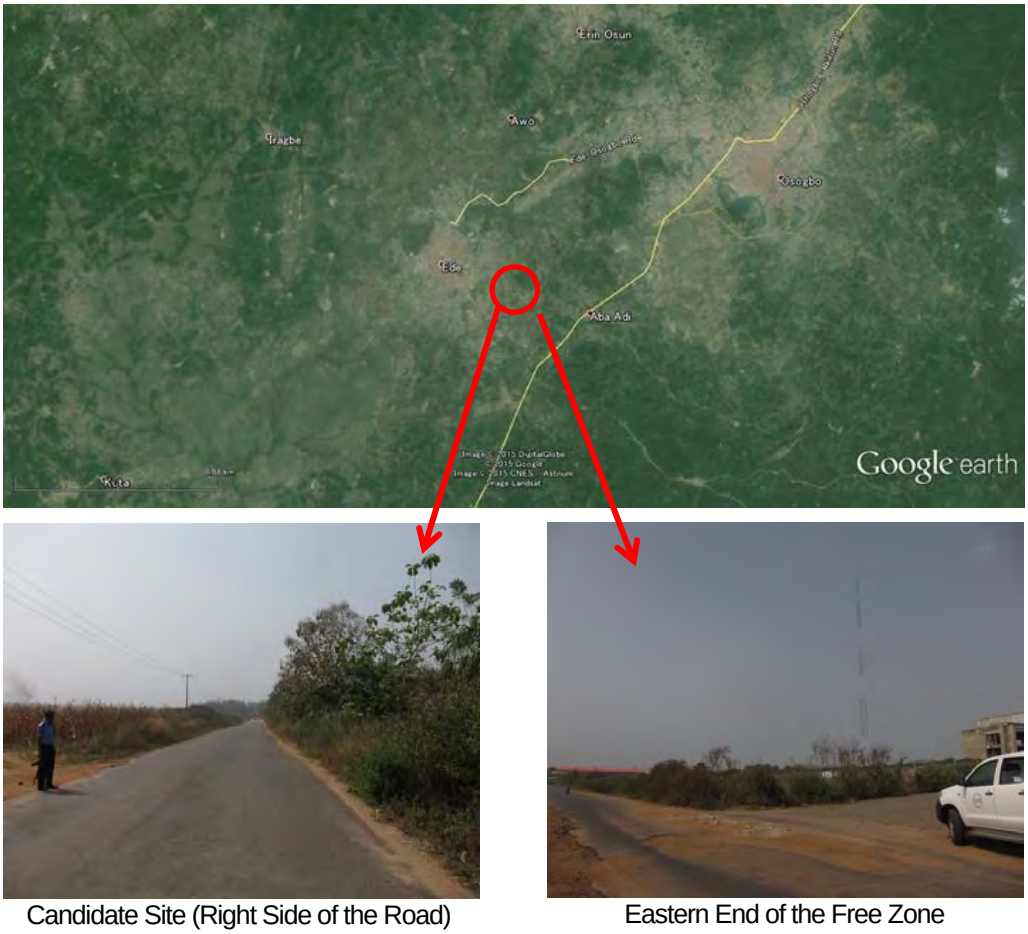
- The candidate site in Osun State is located in Osogbo Free Zone and near the state government complex.
- The state government secures the land that has an area of 200 ha in the free zone for the automotive supplier park and has issued a certificate of occupancy.
- The access road from Gbongan-Osogbo Road is paved, however, other infrastructure such as power and water supply has not been developed because the supplier park development is planned to be implemented with PPP and the expected project scheme is Design-Build-Finance-Operate (DBFO).
- A new cargo airport is under construction near the free zone.
- The state government also has a plan to develop a dry port to establish the logistics hub in the inland area of the country.

Evaluation:

- The location is strategic in terms of logistics because a rail track is laid near the site and new cargo airport is under construction in the adjacent area.

- The land acquisition process has been completed. However, there is no infrastructure such as power and water supply, except for the access roads to the site. If the supplier park development is implemented with PPP, the infrastructure development will be expected to be done by the private sector. This may become a huge financial burden for the investors and they may hesitate to participate in the development project.
- The site is located in the inland area where foreigners may not be able to stay resident due to security reasons.
- The location may not be attractive to investors of auto industries because the site is far away from Lagos and transportation cost may become high compared to Lagos area, even though a dry port is developed near the site.

Figure 2.2-6 shows the location of candidate site in Osun State.



Source: Compiled by the Survey Team based on Google Earth

Figure 2.2-6 Candidate Site of Automotive Supplier Park in Osun State

According to the NAC's information, some other states such as Ogun State also have proposed sites for the automotive supplier parks. In addition, procurement of consultancy service for development of industrial infrastructure is in process. The invitation for expression of interest was announced on April 5, 2015 and 14

companies showed the interest. Of these, four companies were shortlisted. The procurement process may take another two or three months. The winner will be engaged in consultancy services for establishing industrial infrastructure and supporting the industrial parks/clusters around Nigeria.

Mechanics Villages

Creation of mechanics villages was initiated by NAC for the purpose of development of the mechanics business in orderly manner. The current situation of after-sales service was handled by the workshops so-called "road side mechanics" that do not support reliable service due to the lack of equipment and facilities. Moreover, the working conditions of the workshops tend to cause pollution of the environment. After the survey done by the NAC in the state of Oyo, Osun, Enugu and Bauchi, the mechanic village concept was developed, including equipment, facilities and land to be provided. Using PPP scheme was recommended under the state PPP laws and regulations as the responsibility for the villages in the state are controlled by the jurisdiction of the state government, which is the ultimate holder of the assets. The mechanic villages will be ensured to meet the quality standards with buildings, public space, safety of work space and environmental requirement.

The extracts of PPP structure is described as follows:

- The projecting company (SPV: Special Purpose Vehicle) will undertake the project, which will construct and operate the village, earn the revenue form the operation of the village.
- The mechanics association or the government (local, federal) may have a stake in the company.
- NAC will be the initiator of the project and have the sufficient influence on the project in order to safeguard its objects and interests.

The planned time settings of the mechanic village are as follows:

- Development phase: 10 January, 2016
- Operational phase: 10 January 2019
- Operational Contractual term: 20 years.

Local Content Development Programme

OEMs require their suppliers to have the ability to supply components at competitive cost, with the required quality and at the required delivery times. NAC has prepared a local content development programme and is primarily responsible for the implementation of the programme. However, it needs the assistance of a committee of agencies whose mandates impact manufacturing and industrialization. The membership of the committee proposed includes FMITI, SON, SMEDAN, NIPC, ITF, RMRDC, assembly plants, the United Nations Industrial Development Organisation (UNIDO), NOTAP and so on. The local content development programme consists of the following steps:

- Identifying the parts/components to be developed
- Conducting industry diagnosis to identify the gaps
- Taking necessary actions to remedy the gaps
- Providing incentives

- Monitoring compliance

The following are the items to be considered for development in the first phase of this programme:

- Plastic and rubber parts: dashboard, interior panels, exterior panels, bumpers, containers, tyres, tubes, fan blades, fan belt, seat foam, upholstery, acoustic and thermal insulation, oil seals, hoses, radiator grills, engine seating, etc.
- Chemicals: lubricants, paints, metals surface treatment chemicals, seam sealants, anti-gravel
- Welded parts: exhaust system, seat frames, etc.
- Electric parts: batteries, trafficators, wiring harness
- Others: radiator, cables (clutch, throttle, speed, choke, handbrake), filters, gaskets, brake pads/linings, windscreens, side glasses, fibre-glass parts, windscreen wiper blades, small pressed parts, A/C, etc.

(2) Skills Development

Development of Curriculum for Teaching B. Engineering in Automobile Engineering

NAC with the National Universities Commission developed a curriculum for teaching B. Eng in Automobile Engineering in Nigerian Universities. Three universities, the University of Ibadan (in Oyo State), Abubakar Tafawa Balewa University (in Bauchi State) and Elizade University (in Ondo State) are offering the course. The University of Ibadan offers the programmes shown in Table 2.2-3.

Table 2.2-3 Outline of Certificate Programme by the University of Ibadan

Programme	Automotive certificate in: - Continuous variable transmission - Transponder key programming - Understanding electronically controlled transmission - Hybrid system
Duration	3 Months
Requirements	- First School Leaving Certificate - Mechanics (Auto apprentice, one year working experience and school certificate holders)
Course Objectives	- To upgrade the knowledge base of technicians in automobile industry - To promote good working ethics within the automobile industry - o provide a data/information centre for the maintenance of today's auto engines - To provide opportunities for young school leavers and other Nigerians interested in taking up a career in modern automotive care - To promote skill up-grade for auto technicians - To empower individuals willing to start up a business in auto maintenance - Create self-esteem for young people willing to venture into the auto industry - Participants will be able to learn the business side of auto workshop management (Automotive technology, welding and metal fabrication, refrigeration and air-conditioning and plumbing)

Source: The University of Ibadan

Auto Mechanics

A skill gap analysis was conducted to ascertain the difference between available know how and the requirement of modern automobile maintenance in Nigeria, so as to identify the skill deficiencies of the

Nigerian auto mechanics. Based on the result, NAC developed new mechatronics training curricula and study texts. NAC collaborated with the Federal Ministry of Labor and Productivity, German Technical Cooperation provided by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and other auto experts leading to the production of curricula for automotive mechatronics apprenticeship programme for the informal sector. The new mechatronics curricula developed by NAC which award Trade Test III, II & I certificate is integrated to the National Vocational Qualification Framework (NVQF). In addition, NAC procured six sets of modern diagnostic tools and equipment for teaching of automotive mechatronics and gave them as grant to selected polytechnics offering automotive engineering (see Table 2.2-4).

Table 2.2-4 Investment plans after the New National Policy for Automotive Industry Development

No.	Institution	Location	Zone
1	Lagos State Polytechnic, Ikorodu	Lagos	South West
2	Kaduna Polytechnic	Kaduna	North West
3	Federal Science & Technical College, Orozo	FCT	North Central
4	Federal College of Education	Gombe	North East
5	National Metallurgical Training Institute, Onitsha	Anambra	South East
6	Rivers State Polytechnic, Bori	Rivers	South - South

Source: NAC

In addition, four sets of automotive diagnostic tools were procured and donated as grant-in-aid to the following institutions for capacity building in automobile maintenance and repairs:

- Ladies Mechanics Initiative, Lagos
- Federal College of Arts and Science, Lagos
- Industrial Training Fund (ITF), Jos
- Basic Apprenticeship Training Centre, Zaria.

Mechanics' Trainers

NAC identifies 260 mechanics workshops that can teach the new mechanics curriculum nationwide. They are trained in teaching methods and use of modern diagnostic equipment and tools. The training was done in the six institutions and more than 350 auto mechanics trainers were trained as shown in Table 2.2-5.

Table 2.2-5 Auto Mechanics Trained Trainers

No.	Zone	No. of Mechanics Trained
1	South West	70
2	North West	66
3	North Central	65
4	North East	22
5	South East	67
6	South – South	60
	Total	350

Source: NAC

In addition, a national refresher training was organized nationwide for two and three-wheelers mechanics with empowerment tools and kits in conjunction with Simba Group. In total, 1,200 mechanics were trained under this programme. Nationwide trainings were also organized on zonal basis by NAC, SURE-P (Subsidy Reinvestment & Empowerment Programme) and SMEDAN on use of modern mechatronics diagnostic equipment and tools for maintenance and repairs of vehicles for artisans, craftsmen, mechanics and technicians in the auto industry. Empowerment tools and training grants were provided for 977 trainees.

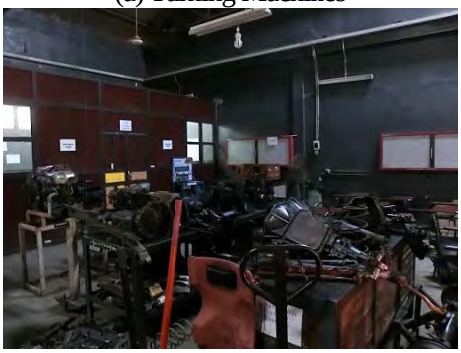
Training Courses provided by the Industrial Training Fund (ITF)

To fill skills gaps in auto operations, ITF and NAC also have the training programs in five industrial skills training centres (ISTCs) in Nigeria. The locations of ISTCs are Jos (Plateau State), Ikeja (Lagos State), Kano (Kano State), Lokoja (Kogi State) and Abuja (FCT Abuja). The scheduled training programme provided in ISTC Ikeja in 2015 is composed of 12 courses (See Appendix-6). Ofthese, "Basic Auto-Maintenance Course (Course No.11)", is directly related to the automotive industry. Other training courses such as pneumatic and hydraulic maintenance, electrical control panel maintenance and application of welding in maintenance works and some others are also useful for workers engaged in the automotive industry. ITF is also providing short term technical/engineering programmes for more practical skill development.

There are seven technology sections for the short term technical/engineering programmes (modules) provided in ISTC Ikeja (See Appendix-6). Of these, the automotive section covers four courses: 1) Basic auto diagnostics (Mechatronics), 2) Auto key programming, 3) Vehicle service and maintenance and 4) Basic wheel balancing and alignment. As ISTC Ikeja has turning machines, welding machines, laboratory car, and various types of laboratory car components, trainees can take practical trainings by using real machines. The laboratory car was donated by PAN Nig. Ltd. to ISTC Ikeja as a teaching material. Figure 2.2-7 shows the training rooms in ISTC Ikeja. ISTC Ikeja has been providing some types of training courses and more than 4,000 participants took the ISTC training over the past decade (See Figure 2.2-8).

(a) Turning Machines

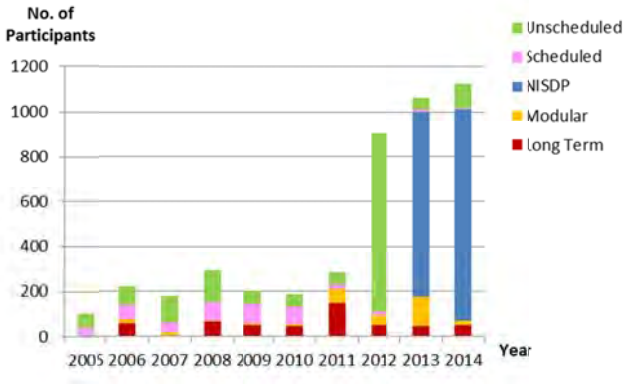
(b) Laboratory Car



(c) Laboratory Car Components

Photos: taken by the survey team

Figure 2.2-7 Machines and Equipment of ISTC Ikeja



Note: NISDP - National Industrial Skills Development Programme
Source: ISTC Ikeja, ITF

Figure 2.2-8 Number of Participants in Training Courses provided in ISTC Ikeja

The duration of training programmes depends on the categories as follows:

- Long Term: 6 month - one year
- Scheduled Training Programmes: 3 days - 5 days
- Unscheduled Training Programmes: 1 day - 2 weeks
- Modular Training Programmes: 2 weeks - 3 months

ITF also works with the Brazil's national industrial vocational training institutions (SENAI: Serviço National de Aprendizagem Industrial) to design auto training centres similar to what they have in Brazil. The centres will be located in the three existing auto clusters. It is expected that the centres will not only train Nigerians to maintain and service vehicles, but will also train them to manufacture spare parts.

Training Centres established by Private Companies

a. Leyland Technical Academy

Leyland Technical Academy was established in July, 2014 and will start the new training admission in January, 2015. Leyland Technical Academy is working with "City and Guilds of London Institute", a vocational education organisation in the United Kingdom, on the standardized certificate. Its target groups are university graduates seeking employable skills, adults seeking opportunities to re-skill themselves, etc. Leyland Technical Academy provides the following programmes:

- Automation Engineering
- Automobile & Diagnostics
- Electrical Repair & Services
- Industrial Boiler
- Computer Hardware Engineering
- Network System Security
- Micro Controllers
- Welding & Fabrication
- Good Manufacturing Practice
- Industrial Electronics
- Process Control
- Analytical Fault Finding
- Instrumentation
- Electro Pneumatic
- Plant Diagnostics and Troubleshooting
- Vehicle Body Building & Repair

Each programme has three months, six months, and nine months courses. The tuition fee depends on the course and training period. For example, the tuition fee of automation engineering course for nine months is NGN 310,000. The academy has a plan to start a diploma course for two years.

As of December 2014, Leyland Technical Academy has 24 participants they will attend the programmes. The participants are from other manufacturing companies, universities, and ITF. The academy has many practice kits for electrical and mechanical training courses. In addition, the academy can provide its own plant and products for automobile training programmes.

b. Bosch

An MOU was signed between NAC and Bosch Automotive Aftermarket to pave the way for the development of technical automotive skills and of structured workshop networks in Nigeria. Mechanics and technicians will be trained in automotive/diesel technology maintenance and repairs. In addition, Bosch will equip the NAC training facilities with workshop test equipment and media training tools (video, brochures, etc.). SCOA has signed an MOU with Bosch to set up 1,500 mechanics workshops to offer Bosch Car Service (BCS) in petrol stations belonging to the Nigerian National Petroleum Corporation (NNPC), Oando and MRS Oil. The BCS will provide technical support and expertise to the workshops.

c. Toyota (Nigeria) Ltd.

As of January 2015, Toyota is not assembling automobiles in Nigeria. There are only service stations for Toyota cars. Toyota is providing "TOYOTA training" for service mechanics.

Skills development opportunities have gradually increased in the universities, polytechnics and ISTCs. Specially, the number of trainees in ISTC Ikeja has been sharply increased since 2012. These kinds of programmes may help to raise the level of Nigerian engineers and technology.

On the other hand, some private companies have established their own training centres such as Toyota, Bosch, Peugeot, Volkswagen, etc. Their target is to fulfil the gaps between academic training and necessary skills in car assembling line. This mean they are thinking still academic training cannot provide satisfactory skills that automobile assembly and components manufacturers require. Programmes provided by public training centres still remain academic level compared to the private companies' requirements and even the training centres try to provide practical ones. But this is very normal situation over the world. Even in Japan, new employees who graduated universities or colleges must take some months for off-the-job training curriculum and need further months for on-the-job training. Of course the programmes of training centres help their participants understand basic knowledge of automobiles. It is big advantage for those who want to work in the automotive industry.

Another challenge is to increase job opportunities for graduates of these training programmes. Even if the trainees acquire the skills, the opportunities to work for companies that require the skills are very limited. NAC expects that there will be more than 200,000 jobs after NAIDP is completed. But at this moment, only few automotive manufacturers provide small jobs. Unless tackling the issue, these training programmes might not be able to be sustained.

Table 2.2-6 shows the necessary skills for each KD step. As the KD stage progresses, the programmes for skills/knowledge development need to be changed from the ones mainly provided by the public training centres to the OJT-basis ones.

Table 2.2-6 Necessary Skills and Knowledge for Each KD Step

Stage	Necessary Skills or Knowledge	Possible Training Provider/Method		Remarks
		Public Training Centre	OJT	
SKD2	(1) 5S (Sort, Systematic arrangement, Sweep, Standardise and Sustaining the discipline)		X	- Basic knowledge for assembly - Public training centres can provide programmes of (3) to (7).
	(2) Safety	X	X	
	(3) Operation with various tools	X	X	
	(4) Basic knowledge of electronics	X		
	(5) Basic knowledge of mechanics	X		
	(6) Basic knowledge of automobile	X		
	(7) Knowledge of automobile maintenance	X		
SKD1	(1) KAIZEN (Improvement)		X	- Advanced knowledge for assembly manufacturers and specific skills for components manufacturers - Public training centres can provide programmes of (2), (4), (5) and (6).
	(2) Hygiene	X	X	
	(3) Operation with heavy equipment		X	
	(4) Basic knowledge of Industrial Engineering (Standard time, line balance, etc.)	X	X	
	(5) Basic knowledge of management (Production plan, quality control, inventory control)	X	X	
	(6) Compliance (Contract, trademark, patent)	X	X	
	(7) Specific skills of each technology (Machining, forming, Electronics, Mechanics)		X	
CKD	(1) Problem solving		X	- Higher knowledge for assembly manufacturers include management items and detailed specific skills for components manufacturers - Public training centres can provide programmes of (7).
	(2) Management system(Quality, Environment)		X	
	(3) Quality assurance		X	
	(4) Supplier control		X	
	(5) Demand forecasting		X	
	(6) CSR		X	
	(7) More specific skills for each technology (Press, grinding, forging, casting, die, soldering)	X	X	

Source: Prepared by the Survey Team

During SKD 2 stage, the operations of assembly line are mainly setting the components and screwing. The necessary knowledge at SKD 2 stage is very basic, comprising such as 5S, safety, using tools, and so on. 5S is the name of a workplace organization method that uses a list of five Japanese words: Seiri (Sort), Seiton (Systematic arrangement), Seiso (Sweep), Seiketsu (Standardise), and Shitsuke (Sustaining the discipline). During SKD1 stage, the assembly process is more complicated. It is better to have knowledge of industrial engineering. Managers request their operators some independent actions such as KAIZEN at this stage. In addition, some component companies needs to be set up. Some specific skills are necessary for each type of component companies. KAIZEN is the name of a business philosophy or system in Japanese that is based on making positive changes on a regular basis, as to improve productivity.

After starting CKD, operators of automobile assembly plants are expected to take more independent actions such as problem solving. And some staffs need to take care of quality, suppliers, inventory and so on. They need knowledge of management system and other management methods. For component suppliers, they also need more specific, detailed technology for parts manufacturing.

(3) Standards

Standards related to Automobile and Automotive Products

The Standards Organization of Nigeria (SON) is made responsible for standardization and regulation of quality for all products in the country. SON is an active member of the African Regional Organisation for Standardisation (ARSO) and is also a member of the International Organization for Standardization (ISO).

Safety and products standards are crucial to the development of a viable automotive industry. Therefore, SON and NAC have developed 102 automotive parts/components safety standards, bringing the total so far to 143. And there are more than 2,000 standards related to automobile and automotive products. Table 2.2-7 shows the major ones related to road vehicle engineering.

Table 2.2-7 Standards related to Road Vehicle Engineering

No.	Standard Title	NIS Code
Road Vehicle in General		
(1)	Standardization of Motor Vehicle Industry	NIS 214: 1984
(2)	Road Vehicles Registration for Government Approval Inspection Station	NIS 224: 1987
Road Vehicle Systems		
(3)	Code of Practice for Establishment of Driving Schools in Nigeria	NIS 296: 1993
(4)	Road Vehicle Tyres and Dimensions Terms and Definitions of Motor Vehicles and Towed Vehicle	NIS 100: 1980
(5)	Road Vehicles Lighting and Signalling	NIS 134: 1980
(6)	Standard for Road Vehicles: Passenger Car Braking System – Measurement of Brake Performance	NIS 194: 1984
(7)	Standard for Brake Pads and Linings	NIS 323: 1997
(8)	Road Vehicles – Requirements for Shock Absorbers for Motor Vehicles	NIS 145: 1985
(9)	Specifications for Rear View Mirrors	NIS 154: 1982
(10)	Test Method for Laminated Windscreens and Safety Glasses for Motor Vehicles	NIS 476: 2004
(11)	Test Methods for Toughened Glass for Rear Windows and Side Doors of Motor Vehicles	NIS 477: 2004
(12)	Standard for Toughened Glass for Back-Window and Side-Glass for Automobiles	NIS 312: 1997
(13)	Road Vehicles Requirements for Passenger Cars	NIS 127: 1981
Internal Combustion Engines for Road Vehicles		
(14)	Specification for throw away type oil filters – Road Vehicles	NIS 191 – 1984
(15)	Resistance to High Pressure Drop and Elevated Temperatures	NIS 192-2: 1984
(16)	Standard Test Methods for Throw-away type oil filters for Automotive Engines Part 1 Proof Pressure	NIS 192-1: 1984
Commercial Vehicles		
(17)	Road Vehicles Inspections and Testing Procedures for Motor Vehicles and Semi-Trailer	NIS 148: 1982
(18)	Standard for Trailers	NIS 301: 2004
(19)	Code of Practice for Trailer and Tanker Driver	NCP
(20)	Specification for Mobile Oil Tankers	NIS 302: 2004
(21)	Specification for Bulk Road Vehicles	NIS 529: 2006
Motor Cycles and Mopeds		
(22)	Specification for Motor Cycle Claims	NIS 414: 2000

Note: NIS - Nigeria Industrial Standards

Source: Nigeria Industrial Standards Centre

SONCAP (Standards Organisation of Nigeria Conformity Assessment Program)

SONCAP is a pre-shipment verification of conformity to standards processes used to verify that products to be imported into Nigeria are in conformity with the applicable Nigeria Industrial Standards (NIS) or approved equivalents, and technical regulations before shipment. Under the SONCAP regime, imports are required to undergo verification and testing at country of supply (Exporting) and a SONCAP Certificate issued demonstrating that the products meet the applicable standards and regulations or a Non-Conformity Report where the goods do not comply. The conformity assessment elements undertaken in SONCAP include but are not limited to physical inspection prior to shipment, sampling, testing and analysis in accredited laboratories, audit of product processes and systems, and documentary check of conformity with regulations and overall assessment of conformity to standards.

The SONCAP scheme is operated on behalf of SON by the following international accreditation firms (IAFs):

- China Certification and Inspection Group
- Cotecna Inspection Limited SA
- Société Generale de Surveillance (SGS) SA
- Intertek

No territory or region or area has been assigned to any of the IAFs. The IAFs are free to operate in every area of their competence and at any location in the world. According to MAN members, SONCAP certificate system is running well. They feel no problem with SONCAP.

MANCAP (Mandatory Conformity Assessment Programme)

MANCAP was put in place by SON in 2006 to ensure that all manufactured products conform to the relevant Nigerian Industrial Standards (NIS) prior to sales in the markets or export. The scheme is aimed at protecting genuine manufacturers against unhealthy practices such as production of sub-standards products, faking and counterfeiting as well as unfair competition in trade. It provides consumers with confidence that products manufactured in the country are fit, safe and meet the intended use. Products that are qualified under the scheme are issued with MANCAP certificates and NIS logos with unique identification numbers. The full implementation of this programme has commenced in 2014 through SON offices in all states of the federation.

Automotive Component Test Centres

NAC is building automotive component test centres to attain the following:

- ✓ To ensure the safety and health of Nigerians.
- ✓ To develop local automotive content.
- ✓ To ensure the good operation and maintenance of Nigerian vehicles.
- ✓ To obtain capability to conduct homologation tests.

Automotive products can be tested to ensure conformity with standards and vehicle homologation when the operation of the centres is commenced. Procurement of equipment for the test centres has been approved. The location of automotive test laboratories is shown in Table 2.2-8.

Table 2.2-8 Location of Automotive Component Test Laboratories

No.	Description	Location	Zone
1	Component Testing Laboratory	Enugu	South East
2	Automotive Materials and Vehicle Evaluation Laboratory	Zaria	North West
3	Emission Testing Laboratory	Lagos	South West

Source: NAC

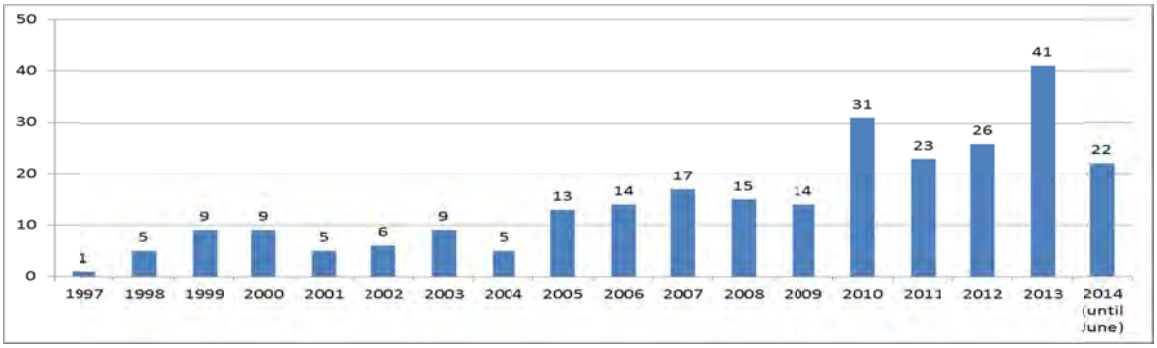
Management System Certification

NAC and SON is working together to promote ISO 9001 QMS certification for the automotive component manufacturers. A sensitization workshop was held by Centre for Automotive Design and Development (CADD) and NAC in Nnewi (Anambra State), one of the automotive clusters in Nigeria, in August 2014.

Basic information about the management system certification such as certification terms and conditions and flow of application for the certification is shown on the SON's website. SON currently offers the following certification:

- Quality Management System
- Environmental Management System
- Occupational Health & Safety Management System
- Food Safety Management System

SON has a plan to start certification for Quality Management System: Automotive (ISO16949). Figure 2.2-9 shows the number of certified companies in Nigeria. Before 2004, there were less than 10 companies. From 2005 to 2009, the number increased to more than ten. And after 2010, the number increased from 20 to 40. As of June 30th 2014, there are totally 265 companies that got the certification of management systems. There is only one company which is specified clearly in automotive industry. The company is the paint company for automobiles.



Source: SON

Figure 2.2-9 Number of Quality Management Certified Companies in Nigeria

(4) Investment Promotion

Fiscal Policy Measures Implementation

The fiscal measures were started in July 2014 in line with the circular issued by the Federal Ministry of Finance dated on 18 June 2014. The levy for importation of brand new fully built units of motor cars and other motor vehicles classified under Heading 87.03 was raised to 35%, while introduction of levies for used fully built units of motor cars has been postponed, considering the market conditions. Another circular dated on 12 September 2014 that stated revised fiscal policy measures for the used motor vehicles has been issued and the effective date of attracting 35% duty without levy was extended to 31st December 2014. The date was extended again to 30 June 2015 by the latest circular on the revised fiscal policy measures for the used motor vehicles. Table 2.2-9 shows the condition and effective date of fiscal policy measures stated in the issued circulars.

Table 2.2-9 Situation of Fiscal Policy Measures Implementation under NAIDP

Item	Condition	Effective Date
Importation of brand new fully built units of motor cars and other motor vehicles classified under Heading 87.03	Attracting 35% duty and 35% levy	From 1st July 2014
Importation of used fully built units of motor cars and other motor vehicles classified under Heading 87.03	Attracting 35% duty without levy	From 1st January to 30th June 2014 => Extended to 31st December 2014 => Extended to 30th June 2015

Source: Federal Ministry of Finance

Checking Smuggling and Grey Imports

The national vehicle registration portal is linked to the NAC's website. The portal is set up to have a comprehensive database for the use and the benefits of all stake holders. Figure 2.2-10 shows the portal site and information list to be registered. It also aims at the following:

- The registration authorities in the state can use the database to manage vehicle licensing and revenue control.
- NCS can use it to manage vehicle entry into Nigeria.
- The registration system will protect individuals from theft as vehicles cannot be stolen and recycled within the system.
- The information in the website can aid the police in the modern unobtrusive discharge of their duties.

< Information to be registered >

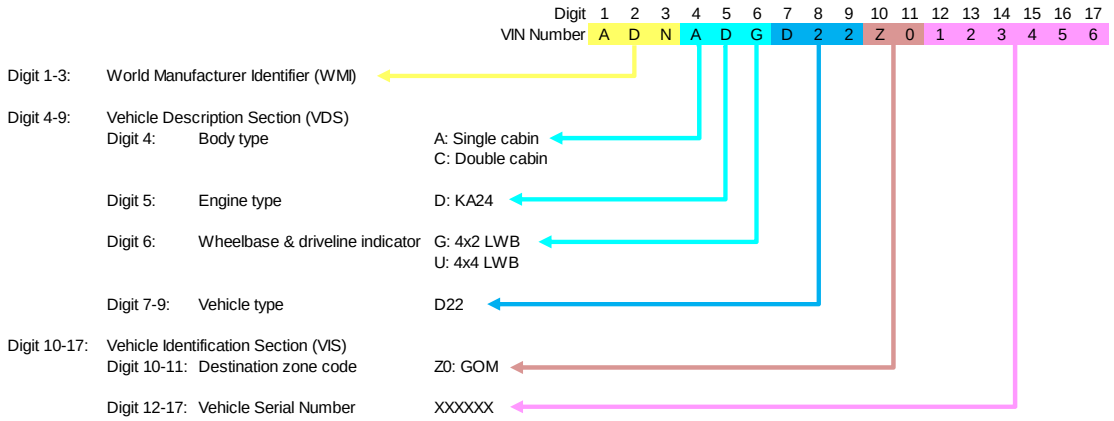
No.	Category	Contents
1	Personal Information	- Name - Address (City, state) - Occupation and company name - Contact information (phone and e-mail)
2	Vehicle Information	- Manufacturer, model, type, colour, status - Year produced - Engine number - Chassis number - Insurance (category and policy number), - Odometer reading - Engine capacity
3	License Information	- License number - Registration state

Source: NAC website

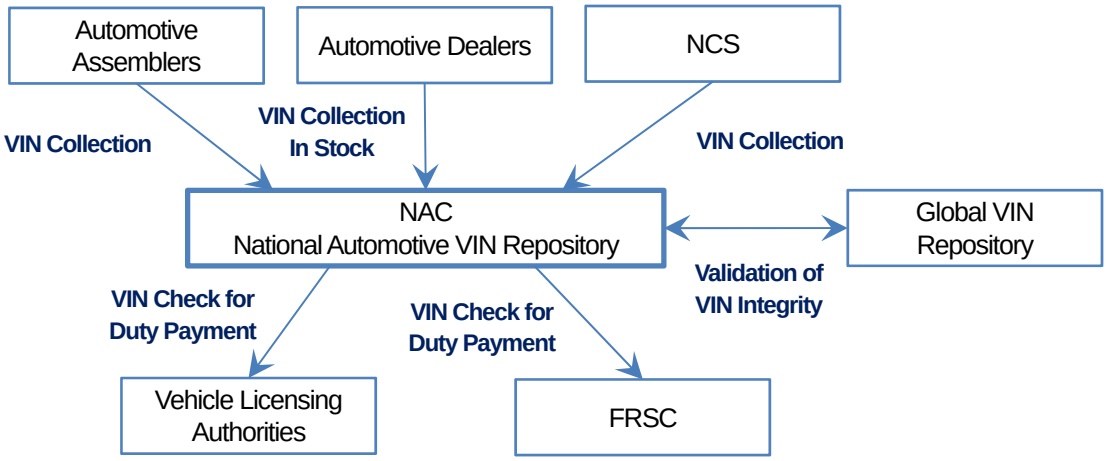
Figure 2.2-10 National Vehicle Registration Portal

Other measures are dealer licensing and national automotive vehicle identification number (VIN) repository. The main objective of the repository is to monitor the profile of automotive technology so as to be able to advice appropriately for the optimum growth of the industry. Therefore, the VIN will contain all information that NAC will need. Moreover, the repository may contribute to curtailing smuggling as it is intended that the vehicle license will be issued on validation of duty payment on the repository for VIN of each vehicle to be registered by FRSC and vehicle licensing authorities. Figure 2.2-11 shows the concept of national automotive VIN repository.

a. Vehicle Identification Number (VIN)



b. National Automotive VIN Repository



Source: NAC

Figure 2.2-11 Concept of National Automotive VIN Repository

Policy Consistency

The development of auto industry in Nigeria was not implemented under the consistent economic policy in the past as stated in Subsection 2.1.1 History of Automotive Industry Development. The federal government directly participated in the automotive industry development up to 1980s. However, the federal government applied macroeconomic policies that contradicted promotion of local assembling after introduction of the IMF's instructions in the middle of 1980s, such as devaluation of local currency and import tariff reduction. As investors experienced such unreliable and inconsistent policies previously, the policy consistency is one of the investors' major concerns. Another recent example is levy hikes for importation of used cars. NAIDP is under attack by the industry that relies on car imports, especially used cars. The used car dealers claim that the job loss in mass scale is inevitable if the new fiscal policy on importation of used cars under NAIDP is implemented. As a result, enforcement of the levy hikes for importation of used cars was postponed several times. Such situation gives enough concerns to investors for the policy change, especially withdrawing new tariff on used cars. Therefore, the investors perceive that it is very important for the federal government to achieve the policy consistency through legalisation of NAIDP and to continue to improve the manufacturing

and infrastructure environment. Considering such situation, the federal government prepared the National Automotive Industry Development Plan (Fiscal Incentives and Assurances) Bill in January 2014. The bill is composed of six sections: 1) Objectives, 2) Institutions, 3) Pioneer status, 4) Income tax relief, 5) Fiscal incentives and 6) Assurances. Table 2.2-10 shows the outline of the bill by component.

Table 2.2-10 Contents of the National Automotive Industry Development Plan (Fiscal Incentives and Assurances) Bill

No.	Section	Outline
1	Objectives	• Develop a sustainable and competitive automotive industry in Nigeria • Create an environment to allow existing assembly plants to grow and continue to attract other Original Equipment Manufacturers in particular, local content suppliers • Create an environment to revive the tyre industry • Enable a sustainable Automotive Industry through the Nigeria Automotive Industry Development Plan and its progressive fiscal framework that encourages the formation of joint ventures between multinationals and local companies through foreign direct investments, to operate assembly plants in Nigeria, transfer progressive technology and skills and locally develop the required capabilities
2	Institutions	NAC: In addition to its functions provided in the National Automotive Council Act, to manage and implement the Nigeria Automotive Industry Development Plan (Fiscal, Incentives and Assurances) Act, under the Nigeria Automotive Development Plan
3	Pioneer Status	• Pioneer enterprises to automobile and automotive components within the provisions of the Industrial Development (Income Tax Relief) Act. • Application of the provisions of the Industrial Development (Income Tax Relief) Act to the automobile and tyre enterprises
4	Income Tax Relief	10 years period of income tax relief to the automobile and automotive component (subject to a five year mid-term review to ascertain the level of implementation of the Nigeria Automotive Industry Development Plan).
5	Fiscal Incentives	• Development and insertion of a new chapter for automobiles in the tariff book (by NAC and NCS) • VIN number managed by NAC
6	Assurances	Assurance and guarantees that all Government's vehicle and vehicle component procurement shall be from local assembly plants, except such vehicles are of a specialised nature and hence cannot be produced in Nigeria

Source: NAC, Presentation material for the Nigerian Automotive Summit

Automotive Development Fund (ADF)

NAC has an automotive development fund (ADF) programme and is working with Bank of Industry (BOI) for the programme implementation. According to the NAC's information, current situation of the ADF programme is as follows:

- Long-term and low interest (7.5 percent) loans were given to auto companies for assembly operations and local content manufacturing. 32 industrial projects were funded with NGN11 billion since inception in 2005. Between 2011 and 2014, nine projects were provided with loans worth NGN 3 billion through the Bank of Industry.
- NGN 2.5 billion set aside for a Nigerian Vehicle Purchase Scheme to increase patronage of the local automotive industry.
- NGN 1 billion set aside for mechanics' equipment loan scheme. Over 500 mechanics were funded to re-equip their workshops.

Table 2.2-11 shows the list of approved projects in recent years.

Table 2.2-11 Usage of Automotive Development Fund

No.	Company	Year	Purpose	Amount
1	Lafbart Innovation and Consulting	2011	Establishment of tricycle assembly plant in Akure, Ondo State.	50,000,000
2	General Tyres and Tubes	2012	Local Manufacturing of motorcycle tyres and tubes in Eneme, Enugu State	119,822,000
3	Proforce Limited	2012	Production of technologically advanced bullet resistant vehicles	569,018,049.9
4	National Trucks Manufacturers Limited, Kano	2012	Additional loan as working capital.	271,669,573.6
5	Osun State Government, Oshogbo	2013	Establishment of mechatronics institute in Osun State College of Technology, Esa Oke, Osun State	1,000,000,000
6	Tilad Nigeria Ltd.	2013	Procurement of plant and machinery to establish tricycles and mini-buses in Oshogbo, Ikirun road, Osun State.	244,628,000
7	Rola Oil Limited	2013	Additional loan for assembling of tricycles at Ibadan, Oyo State.	100,000,000
8	Ahmed Raji	2013	Assembly of motorcycle/tricycle assembly and plastic manufacturing plant in Oshogbo, Osun State.	45,000,000.
9	Oracle Business Limited	2014	Procurement of plant and machinery for establishment of automobile plastic manufacturing plant and raw material in Makurdi, Benue State	576,775,000
			Total	2,976,912,623.5

Source: NAC

Additional accumulation of ADF from levies on the automobile and auto parts imports was revoked by the amendment of the National Automotive Council Decree in 2007. Therefore, there had been no additional accumulation of ADF since the amendment. However, a new act on establishment of the National Automotive Design and Development Council was gazetted in May 2014 and the additional accumulation of ADF was resumed.

(5) Market Development

In addition to the implementation of fiscal measures, it is very important to provide potential customers with financial instruments to enable them to purchase new vehicles made in Nigeria.

PAN started the loan scheme for new Peugeot car acquisition, “Peugeot Vehicle Acquisition Finance Scheme”. The loan scheme will be provided by two financial institutions: Enterprise Bank Limited; and Jaiz Bank Limited. Basic conditions of the loan scheme are as follows:

- Negotiated low financing charges combined with discounted vehicle price
- Fixed monthly repayment for any tenure of between 12 to 48 months
- Low equity contribution of between 10 and 20 percent (subject to status of applicants)
- Tracker
- Comprehensive insurance cost
- No hidden costs or charges

NAC has signed a Memorandum of Understanding with Wesbank on provision of vehicle purchase scheme for retail and corporate acquisition of made-in-Nigeria vehicles. The scheme is expected to begin from the second quarter of 2015. Wesbank is a division of First Rand Bank Ltd., a financial services provider in South Africa, and already established itself as a leading provider of auto finance in South Africa. Although the target volume of new vehicles to be sold through this loan scheme and the interest rate are not specified, the loan rate is planned to be significantly lower than the current loan from commercial banks, to make the scheme effective and practical to promote new vehicle purchase. The operating structure has been finalised for discussion with the Central Bank of Nigeria and subsequently the submission of two companies: WESBANK FINCO and NAC FINCO. NAC FINCO will be a shell company to be funded by NAC equity sourced from ADF (initially NGN 2.5 billion) and subsequently from a proportion of levies on FBU imports.

2.2.3 Priority Issues for Further Promotion

The result of interview with some auto companies shows there remains difficulties or disincentives in the investment in the Nigerian automotive industry. When foreign companies consider investment in the country, the low safety/security level is a big issue because the cost for security measures will becomes high. In addition, it is very difficult to relax the corporate rules on security under the current situation. Insufficient infrastructure development also makes investors hesitate to enter into the market (see Figure 2.2-12).

Source: Compiled by the Survey Team

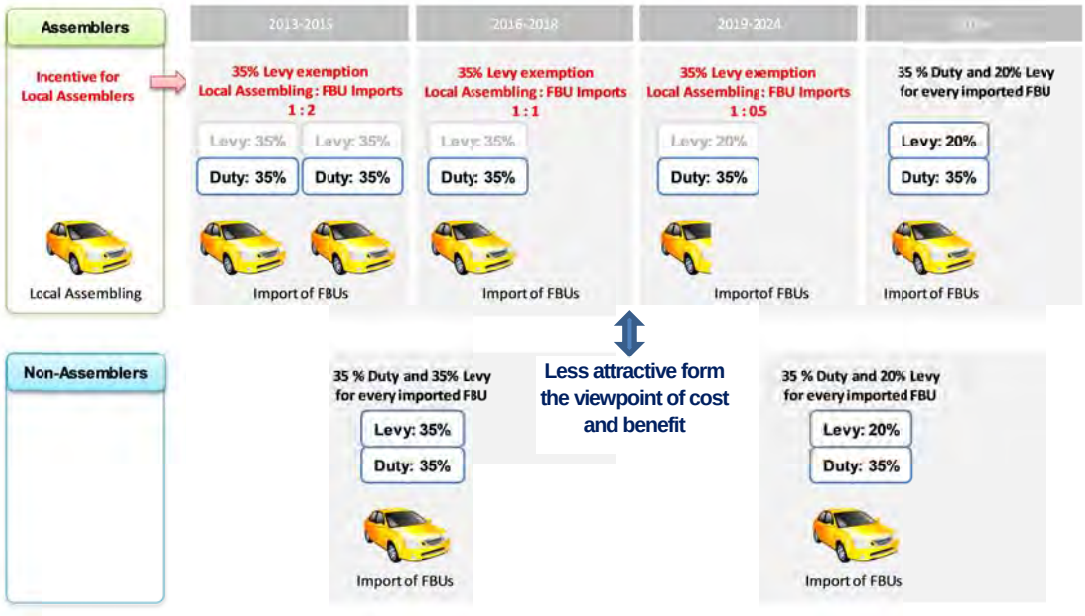
Figure 2.2-12 Disadvantage on Safety Cost

Bad road conditions require more transportation cost and low power supply hinders the investment in plants that need stable power supply for production. Foreign investors need clear vision and action on the automotive industry development in the country and strong government commitment on the policy consistency. Such situation may cause negative impact on assembling and delivery and limitation of assembling line that can be installed. This may become disincentive to foreign investors (see Figure 2.2-13).

Source: Compiled by the Survey Team

Figure 2.2-13 Disadvantage on Transportation and Utility Cost

According to NAIDP, CKD assembling is expected to start from 2018. However, there is no information about target local contents and local content rate. There is no strategy to develop the local content manufacturers that can meet the quality, cost and delivery and can contribute to the CKD assembling. The existing fiscal measures provide local assemblers with favoured levies on importation of FBUs. However, the tariff difference is not sufficient to promote investment in local production and assembling because SKD and CKD assembling requires more cost for design and logistics. It might need more than 40 percent difference between the assemblers and non-assemblers. In addition, the incentive to local assembling is applied only for 12 years. Foreign investors may regard the investment as not attractive and remain assembling at CKD or SKD stage.



Source: Compiled by the Survey Team

Figure 2.2-14 Insufficient Incentive to OEMs

No control of used car imports, grey imports and smuggling discourage foreign manufacturers from investing in production and assembling in the country because the price of grey-import cars/parts and illegally imported cars are very low. Figure 2.2-15 shows the summary of priority issues to be solved/addressed for further promotion of automotive industry development in the country under NAIDP.

According to assemblers and local content manufacturers, NAIDP itself is regarded as the good policy. If NAC implements all items as scheduled, the automotive industry may revive. However, their concern is implementation or realisation of the plan. For example, levy on imports of new FBUs has been already started, but that on used cars has been postponed several times. They expect the capacity development of NAC to realise NAIDP. The assemblers also pointed out ambiguity of NAIDP because it does not include detail action plans of operation. Therefore, they perceive that NAIDP does not set clear targets to develop the automotive industry in Nigeria. In order to proceed further implementation of NAIDP and show clear path to develop the automotive industry to the assemblers and local content manufacturers, the priority issues and disadvantages shown in Figure 2.2-15 need to be addressed.

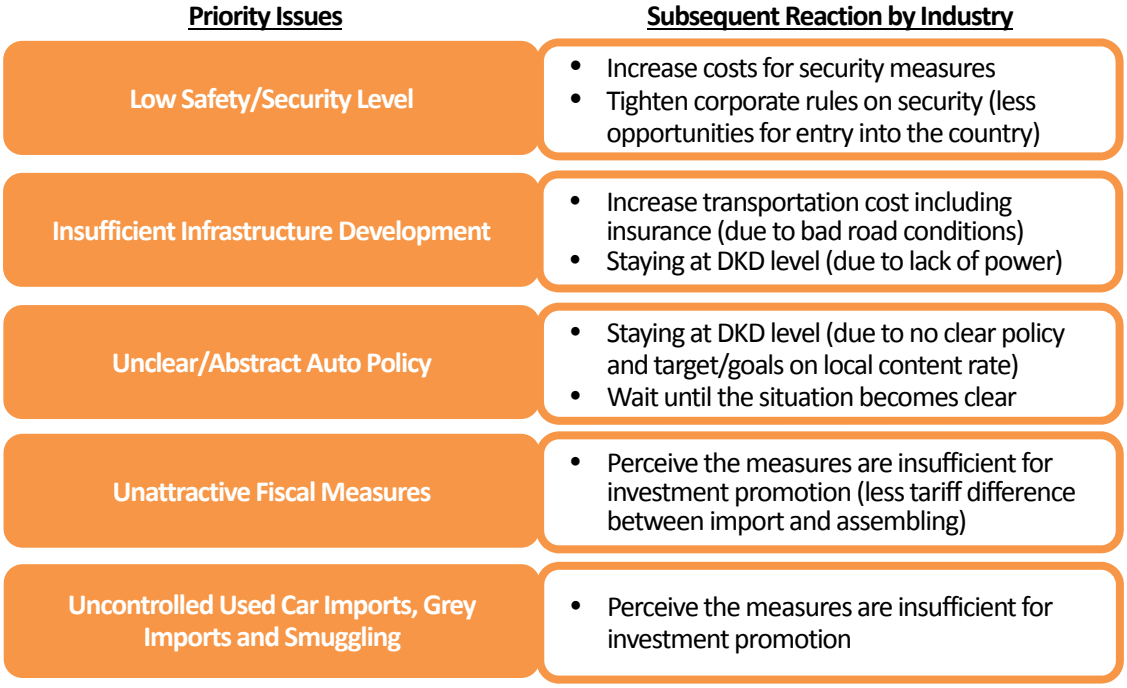


Figure 2.2-15 Priority Issues to be Addressed and Its Disadvantages

2.3 Assistance by Donors

Currently, an advisor from UNIDO is participating in preparation of the automotive local content development programme that is initiated by NAC. There is no other on-going or planned programme supported by donor.

2.4 Automotive Market

2.4.1 Automotive Market

According to the market information shown in NIRP, Nigeria currently imports about 400,000 vehicles into the country every year, made up of 100,000 new cars and 300,000 used cars. However, no statistics of vehicle number for sales and imports are available in the country. OICA (Organisation Internationale des Constructeurs d'Automobiles, or the International Organization of Motor Vehicle Manufacturers in English) has the world statistics of new vehicle sales and vehicle in use. Table 2.4-1 shows the sales of new vehicles in Nigeria are 52,000 units in 2013, of which sales of passenger cars are 40,000 units. Table 2.4-2 shows the number vehicles in use in Nigeria is 3.3 million units in 2012, of which the number of passenger cars is 2.6 million units. These figures are the estimated ones.

Table 2.4-1 Sales of New Vehicles in Nigeria and Other Auto Producing Countries

(Unit: vehicle unit)

Regions/Countries	2010	2011	2012	2013
Egypt (Total)	248,917	271,900	286,300	294,900
(Passenger Cars)	192,848	210,300	222,700	226,300
(Commercial Vehicles)	56,069	61,600	63,600	68,600
Kenya (Total)	6,000	6,000	9,500	13,000
(Passenger Cars)	4,000	4,000	2,000	2,500
(Commercial Vehicles)	2,000	2,000	7,500	10,500
Morocco (Total)	103,436	112,093	130,306	120,755
(Passenger Cars)	91,119	99,727	117,818	108,177
(Commercial Vehicles)	12,317	12,366	12,488	12,578
Nigeria (Total)	37,000	45,000	50,000	52,000
(Passenger Cars)	25,000	30,000	40,000	40,000
(Commercial Vehicles)	12,000	15,000	10,000	12,000
South Africa (Total)	492,907	572,241	623,921	650,620
(Passenger Cars)	337,130	396,292	440,002	450,440
(Commercial Vehicles)	155,777	175,949	183,919	200,180
Brazil (Total)	3,515,066	3,633,253	3,802,071	3,767,370
(Passenger Cars)	2,644,706	2,647,250	2,851,540	2,763,718
(Commercial Vehicles)	870,360	986,003	950,531	1,003,652
Pakistan (Total)	152,354	163,260	157,656	141,778
(Passenger Cars)	130,038	140,184	136,026	121,122
(Commercial Vehicles)	22,316	23,076	21,630	20,656
Indonesia (Total)	764,710	894,164	1,116,230	1,218,900
(Passenger Cars)	541,475	602,291	780,785	870,927
(Commercial Vehicles)	223,235	291,873	335,445	347,973
Thailand (Total)	800,357	794,081	1,423,580	1,330,672
(Passenger Cars)	346,644	360,441	660,214	724,346
(Commercial Vehicles)	453,713	433,640	763,366	606,326

Note: The figures highlighted are estimated numbers.

Source: OICA Correspondents Survey

Table 2.4-2 Vehicles in Use in Nigeria and Other Auto Producing Countries

(Unit: thousand units)

Regions/Countries	2009	2010	2011	2012
Egypt (Total)	3,940	4,391	4,580	4,810
(Passenger Cars)	3,000	3,437	3,600	3,800
(Commercial Vehicles)	940	954	980	1,010
Kenya (Total)	896	920	950	990
(Passenger Cars)	500	520	540	570
(Commercial Vehicles)	396	400	410	420
Morocco (Total)	2,367	2,457	2,600	2,720
(Passenger Cars)	1,798	1,875	2,000	2,100
(Commercial Vehicles)	569	582	600	620
Nigeria (Total)	2,967	3,090	3,210	3,330
(Passenger Cars)	2,288	2,400	2,500	2,600
(Commercial Vehicles)	679	690	710	730
South Africa (Total)	8,221	8,472	8,794	9,168
(Passenger Cars)	5,411	5,596	5,832	6,111
(Commercial Vehicles)	2,810	2,876	2,962	3,057
Brazil (Total)	29,643	32,065	34,655	37,271
(Passenger Cars)	23,612	25,541	27,491	29,566
(Commercial Vehicles)	6,031	6,524	7,164	7,705
Pakistan (Total)	2,170	2,264	2,434	2,636
(Passenger Cars)	1,764	1,849	2,006	2,188
(Commercial Vehicles)	406	415	428	448
Indonesia (Total)	14,570	15,829	16,674	18,004
(Passenger Cars)	7,910	8,891	9,460	10,494
(Commercial Vehicles)	6,659	6,938	7,215	7,510
Thailand (Total)	10,085	10,600	11,533	12,749
(Passenger Cars)	4,462	4,750	5,405	6,274
(Commercial Vehicles)	5,623	5,850	6,128	6,475

Note: The figures highlighted are estimated numbers.

Source: OICA Correspondents Survey

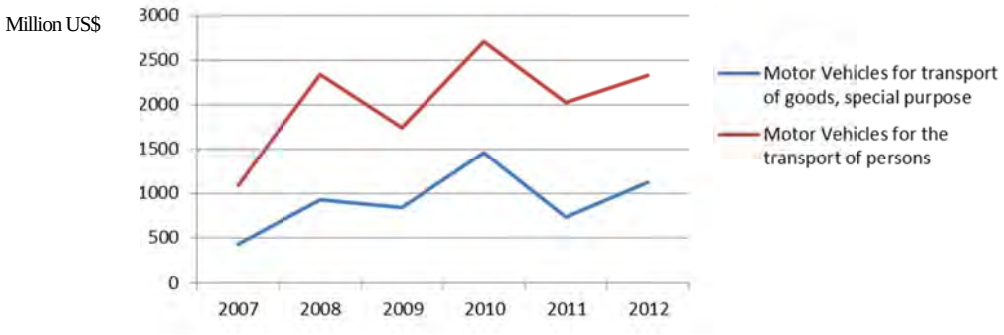
As for the statistics of vehicle imports, the data from the United Nations Conference on Trade and Development (UNCTAD) is available as shown in Table 2.4-3. Both the import amounts for passenger cars and commercial vehicles basically follow the increasing trend (see Figure 2.4-1). Table 2.4-4 shows the vehicle imports in unit basis for 2008 and 2009. In 2008, imports of new and used vehicles are 31,195 units and 47,569 units respectively, while the figures changed to 13,619 units for new vehicles and 187,184 units for used ones. These figures indicate that preference for used ones to new ones is remarkable in 2009.

Table 2.4-3 Import of Vehicles into Nigeria

(Unit: million US$)

Year	2007	2008	2009	2010	2011	2012
Motor Vehicles for transport of goods, special purpose	427	930	847	1,466	731	1,125
Motor Vehicles for the transport of persons	1,096	2,344	1,746	2,705	2,024	2,326
Total	1,523	3,234	2,593	4,171	2,755	3,451

Source: UNCTAD



Source: Compiled by the Survey Team from the data of UNCTAD

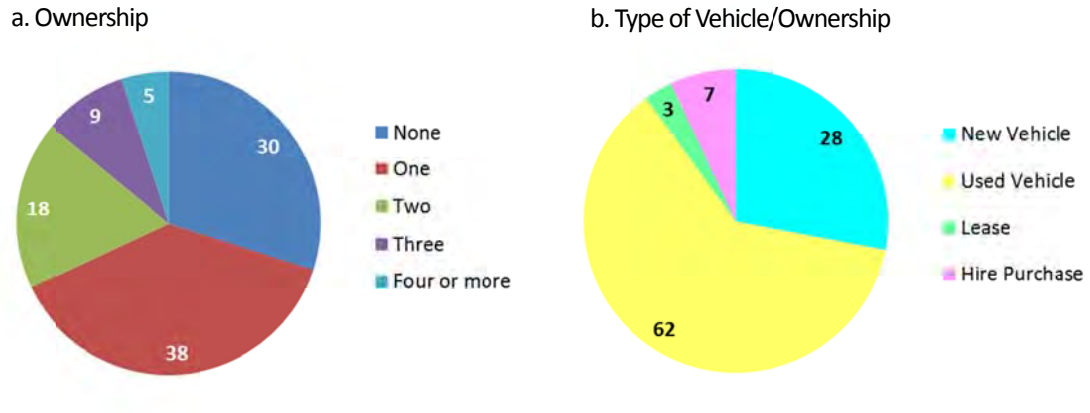
Figure 2.4-1 Trend of Motor Vehicles Imports in Amount Basis (2007-2012)

Table 2.4-4 Import of Vehicles by Type in Unit Basis (2008 and 2009)

	Cars				Buses/Vans				Trucks				Total			
	New		Used		New		Used		New		Used		New		Used	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
January	1,439	2,899	702	1,064	632	32	4,254	1,555	25	35	890	710	2,096	2,966	5,846	3,329
February	569	243	403	1,102	251	359	1,188	3,270	8	68	381	742	828	670	1,972	5,114
March	5,045	2,080	1,455	2,772	428	1,333	1,657	4,273	52	129	777	2,817	5,525	3,542	3,889	9,862
April	1,792	1,712	384	4,402	445	90	1,843	7,407	34	71	563	2,128	2,271	1,873	2,790	13,937
May	1,234	268	1,280	3,755	155	1	2,461	3,082	77	35	902	1,589	1,466	304	4,643	8,426
June	2,137	1,447	509	4,654	57	38	435	2,550	42	10	84	2,657	2,236	1,495	1,028	9,861
July	6,072	1,785	1,690	5,938	402	27	6,692	5,328	145	12	1,179	3,569	6,619	1,824	9,561	14,835
August	437	589	1,710	11,282	278	5	3,117	8,983	128	0	1,443	5,189	843	594	6,270	25,454
September	931	0	1,087	6,808	99	0	447	7,959	46	0	824	6,736	1,076	0	2,358	21,503
October	2,741	0	826	8,309	344	0	2,167	9,642	121	0	913	7,113	3,206	0	3,906	25,064
November	4,526	0	1,378	10,788	444	25	2,319	8,090	59	0	782	6,655	5,029	25	4,479	25,533
December	0	317	35	10,658	0	0	212	8,174	0	9	580	5,434	0	326	827	24,266
Total	26,923	11,340	11,459	71,532	3,535	1,910	26,792	70,313	737	369	9,318	45,339	31,195	13,619	47,569	187,184

Source: RMRDC

NAC conducted the Survey on Consumers Preference for Automobile in Nigeria. According to the survey result, 70 percent of the respondents own more than one car and 60 percent of the owned cars are used ones (see Figure 2.4-2).

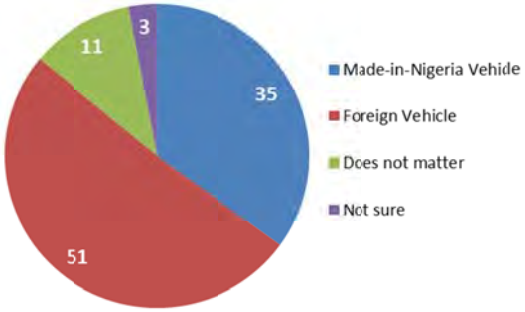


Source: NAC, "the Survey on Consumers Preference for Automobile in Nigeria"

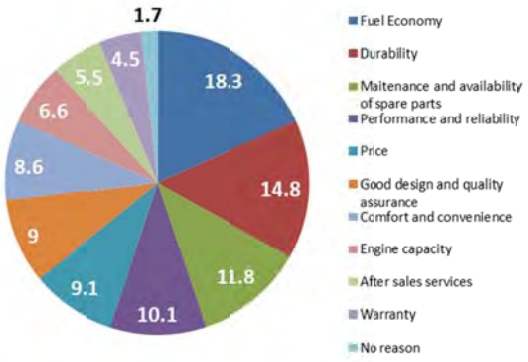
Figure 2.4-2 Ownership and Type of Vehicle

Figure 2.4-3 shows the consumers preference on vehicle source and factors influence buying decision. Half of the respondents prefers foreign vehicle, while the made-in-Nigeria vehicle account for 35 percent. The most important factor that may influence the buying decision is fuel economy (18.3 percent), followed by durability (14.8 percent), maintenance and availability of spare parts (11.8 percent) and Performance and reliability (10.1 percent).

a. Vehicle Source



b. Factors Influence Buying Decision

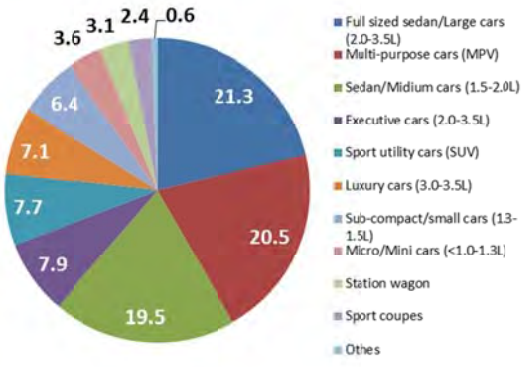


Source: NAC, "the Survey on Consumers Preference for Automobile in Nigeria"

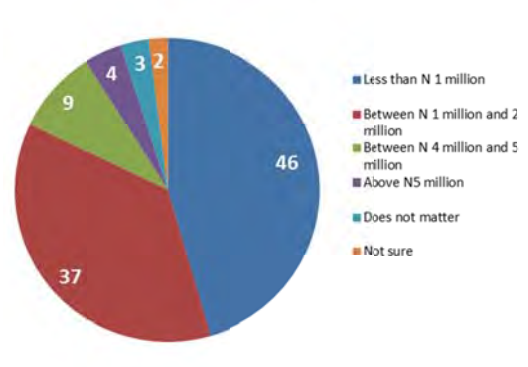
Figure 2.4-3 Preference on Vehicle Source and Factors Influence Buying Decision

Figure 2.4-4 shows the vehicle types and price range that consumers prefer. The medium and large cars are preferred by the Nigerian consumers, while the most preferred price range was less than NGN 1 million (46 percent), followed by between NGN 1 million to 2 million.

a. Vehicle Type Preference



b. Price Range



Source: NAC, "the Survey on Consumers Preference for Automobile in Nigeria"

Figure 2.4-4 Vehicle Type Preference and Price Range

According to the survey report, the majority of the respondents live in the urban area (48.5 percent) where the demand for vehicles is more than other places, and are male (67.7 percent) and young aged between the ages of 18 and 45 (52 percent). Most of the respondents would prefer the sedan four doors when making decision to purchase a vehicle (51.5 percent), followed by double cabin pickup (15 percent) and sedan two doors (9.5 percent).

2.4.2 Supply Chain

(1) Assemblers

Following the approval of NAIDP by the Federal Executive Council and issuance of fiscal policy measures for the automotive industry, consultative and advocacy meetings were held with stakeholders in the industry on the implementation of NAIDP. Advocacy meetings were held in Lagos, Enugu, Kaduna and Abuja. Since the announcement of NAIDP, 22 companies have signed commitments with technical partners to set up assembly operations. The six that have started assembly operations or will start by the end of 2014 represent an investment of about N24 billion for the SKD operations. By the end of 2015, investments in SKD operations will be expected to increase to NGN 48 billion when six others start assembly operations. CKD operations by these companies will result in total investment of NGN 192 billion. As for the existing assembly plants, PAN resumed assembly of Peugeot cars in July 2014 and VON has started assembling Nissan and Hyundai vehicles. INNOSON has started car assembly in addition to commercial vehicles, while Dana Motors will soon start assembling Kia and Renault vehicles. Table 2.4-5 shows an updated list of assembly plants and a list of assemblers granted licenses under NAIDP (as of 13 February 2015) respectively. About 60 percent of the plants are located/planned in Lagos State (for the planned locations in Lagos State, see Figure 2.4-5).

When all the investment plans are realized, the local value added will increase with the presumed activities of existing local assembly plants and more will result from the additional investment anticipated. It is expected that assembling activity alone might represent an average of 18% value in cars and 40% in buses. The vehicles assembly in 2015 is expected to reach 100,000 units, at an average price of about NGN 3 million, giving a total turnover of NGN 300 billion. The total value added will be about NGN 60 billion. As more assembly plants move to CKD operations and the local content ratio increases, the total manufacturing value added will rise proportionately. It is also anticipated that levels of local component manufacture will be developed during the transitional period of the NAIDP leading up to 2016.

Table 2.4-5 Assembly Plants in Nigeria (As of February 2015)

No.	Company	State	Products (Brands)	Status
1	Innoson Vehicle Manufacturing Co. Ltd.	Anambra	Cars, pick-ups, buses, SUVs, trucks, ambulance	Producing (CKD)
2	ANAMMCO	Enugu	Trucks, buses	Producing (SKD)
3	Iron Products Industries Ltd. (IPI)	Lagos	Trucks, tanker bodies, buses	Producing (SKD)
4	Leyland Bussan Motors Ltd.	Oyo	Trucks, buses / Leyland	Producing (CKD)
5	National Trucks Manufacturers	Kano	Pick-ups, trucks, buses, SUVs, agricultural tractors, etc. / Sino trucks	Producing (SKD)
6	PAN Nig. Ltd.	Kano	Cars, buses / Peugeot	Producing (SKD/CKD)
7	Proforce Ltd.	Lagos	Armoured vans, buses / Proforce	Producing (CKD)
8	Scoa Nigeria Plc.	Lagos	Truck, buses /MAN	Producing (SKD)
9	Steyr Nigeria Ltd.	Bauchi	Trucks, buses, Motorcycles, tractors / Steyr	Producing (SKD)
10	Stallion Nissan Motors Nigeria Ltd.	Lagos	Cars, SUVs, mini-buses, Pick-ups / Nissan	Producing (SKD)
11	Stallion Motors Ltd.	Lagos	Trucks, buses,	Producing (CKD)
12	Lafbart Innovations & Consulting Ltd.	Ondo	3-wheel motor vehicles, Ambulance, trucks / Lafbart	Producing (CKD/SKD)
13	Transit Support Services Ltd.	Lagos	Trucks / Shacman	Producing (SKD)
14	VON Automobile Nigeria Ltd.	Lagos	Buses, trucks, armoured cars, SUVs, Vans / Ashok Leyland	Producing (SKD)
15	Dana Motors Ltd.	Lagos	Cars, SUVs, mini-buses / Renault. Kia	Producing (SKD)
16	Nigerian Sino Trucks Ltd.	Lagos	Sino trucks	Producing (SKD)
17	Hyundai Motors Nig. Ltd.	Lagos	Cars, buses / Hyundai	Producing (SKD)
18	Perfection Motors Co. Limited	Lagos	FAW trucks	Licensed, building plants/ facility (SKD)
19	Richbon Nigeria Limited	Lagos	Sino trucks, Xiamen King long buses	Licensed, building plants/ facility (CKD)
20	General Appliances West Africa Ltd.	Enugu	BIGST SUVs, Pick-ups	Licensed, building plants/ facility (CKD)
21	Nigeria-China Manufacturing Company Ltd.	Lagos	Buses, SUVs, cars / Hentong	Licensed, renovating plant/ facility (SKD)
22	Transguinea Ltd./Leventis Motors	Oyo	Truck, buses / FOTON, Eichel	Licensed, building plants (SKD)
23	Honda Automobiles West African Limited	Lagos	Cars / Honda	Licensed, test running (SKD)
24	Tilad Nigeria Ltd.	Osun	Mini-buses / Shinery	Licensed, imported SKD kits, taking delivery (SKD)
25	R.T. Briscoe Nigeria Limited	Lagos	Buses, trucks / BYD	Licensed, ordered equipment and rehabilitating old and building new facilities (CKD)
26	Aston Motors	Lagos	Aston trucks	Licensed, awaiting equipment and KD kits (SKD)
27	Globe Motors Nigeria Limited	Lagos	Mini-buses, pick-ups, SUVs, cars / Higer	Licensed (SKD)
28	Toyota Nigeria Ltd.	Lagos	Light commercial vehicles / Toyota	Licensed (SKD)
29	Coscharis Motors Ltd.	Lagos	Cars, commercial vehicles, pick-ups / MG, Ford	Licensed (SKD)
30	Bascon Nigeria Ltd.	Oyo	JAC trucks	Licensed, ordered equipment (SKD)

Source: NAC

Source: Prepared by the Survey Team based on Google Earth

Figure 2.4-5 Major Investment Locations in Lagos State

According to the JETRO Report on African Business in 2007, production of the existing assemblers was very low in 2006 as shown in Table 2.4-6.

Table 2.4-6 Production of the Existing Assemblers in 2006

No.	Plant	Establishment Year	Capacity	Operation
1	PAN Nig. Ltd.	1972	63,000 (cars)	9 %
2	VON Nigeria Ltd.	1973	39,000 (cars)	0 %
3	Mercedes-Benz ANAMMCO	1977	7,500 (trucks, buses)	3.5 %
4	Steyr Nig. Ltd.	1976	8,000 (trucks, buses) / 5,000 (tractor)	0 %
5	NTM Nig. Ltd.	1976	7,500 (trucks, buses) / 5,000 (tractor)	0 %
6	Leyland Nigeria Ltd.	1976	-	0 %
7	GM Nig. Ltd.	1990	7,500 (trucks, buses)	9.6 %
8	SCOA Nigeria Ltd.	1969	12,500 (trucks, buses)	1 %
9	Lamcil Nigeria Ltd.	-	120 (trucks, buses)	0 %
10	Barum Ltd.	-	60 (trucks, buses)	5 %

Source: JETRO, "Report on African Business", 2007

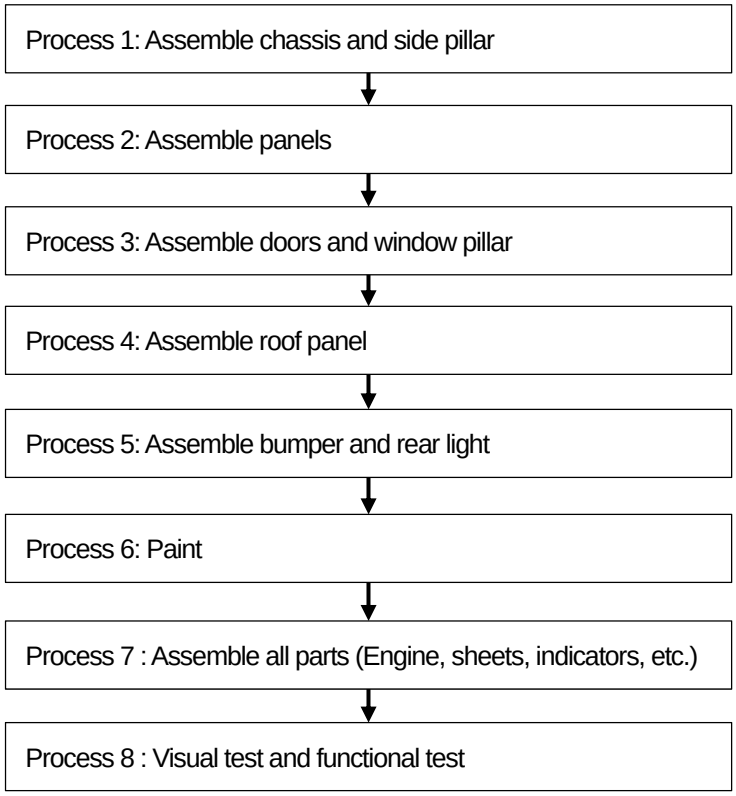
The production rate of the automobile assembly plants has fallen below expectation in the past decades. Most of the assemblers have closed down their plants except PAN Nig. Ltd. Table 2.4-7 shows that the PAN's annual production from 2000 to 2013. The production has fallen from 264 cars per day in 1980s to 22 cars per day in 2010 and no production after 2011.

Table 2.4-7 Annual Production of PAN (2000 – 2013)

Year	Annual Production	Daily Production
2000	31,200	100
2001	28,080	95
2002	24,960	90
2003	24,960	80
2004	23,400	75
2005	21,840	70
2006	21,840	70
2007	18,720	60
2008	12,480	40
2009	12,480	40
2010	6,864	22
2011	0	0
2012	0	0
2013	0	0

Source: IOSR Journal of Research & Method in Education

Currently, Leyland resumed the production of commercial vehicles such as buses. Figure 2.4-6 shows the manufacturing process of buses assembled by Leyland Busan Motors Ltd. As for the local content, 30 percent of assembled parts are purchased from local suppliers. They are sealant, polyurethane, glass, adhesives, and batteries. Other 70 percent of assembled parts are imported from China. In visual test and functional test, there are about 10 percent of failures. Most of failures are caused by assembly. It reports that parts failure is very few.



Source: Prepared by the Survey Team based on the interview and site survey

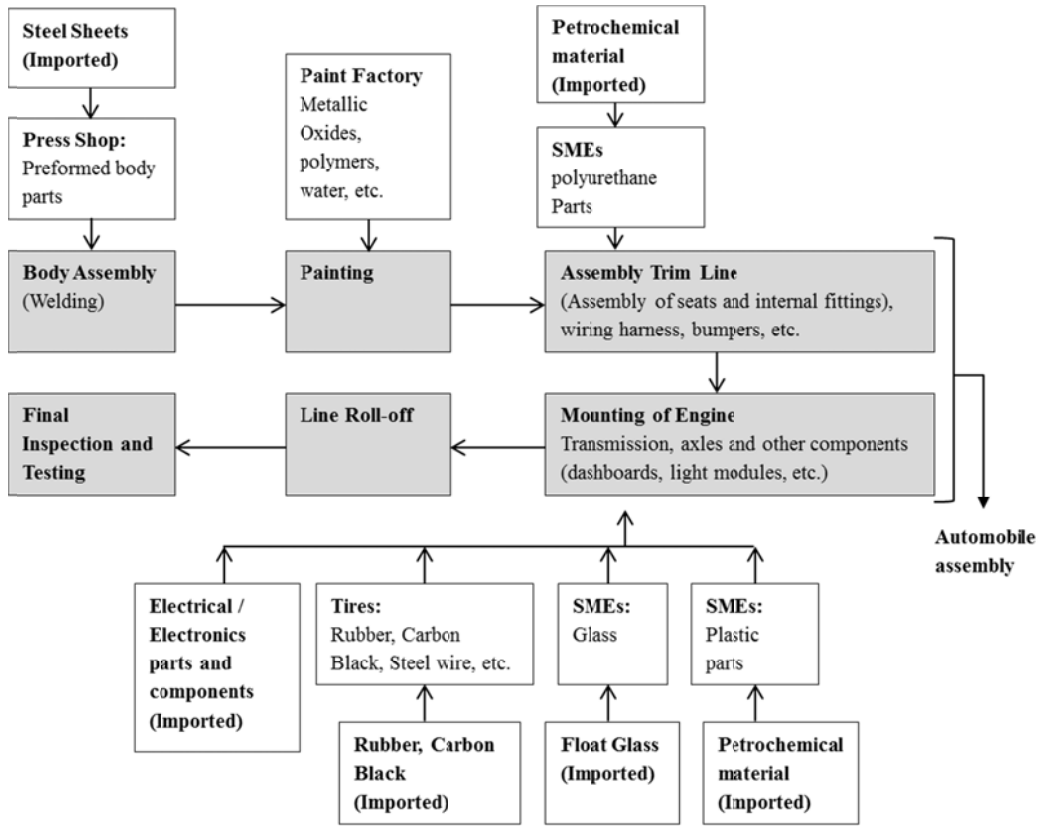
Figure 2.4-6 Manufacturing process of Bus (Leyland Busan Motors Ltd.)

Assembling Process and Supply Chain

As stated in Sub-Section 2.1.1, establishment of automobile assembly plants during 1970s and 1980s brought quick development of automotive industry to the country. Figure 2.4-7 shows the assumed assembly process and associated supply chain in 1990s according to the information gathered from interviews and site surveys. Components which had been supplied locally were supposed to be paint material, polyurethane parts, glasses, tires, adhesives, and batteries during the periods.

At the first stage of SKD, OEMs assemble their products once completely in foreign factories. After testing, they disassemble and export the components and re-assemble in Nigeria. Nissan, Hyundai, KIA brand cars are assembled with this process. And Honda will start assembly with similar process in the country. Almost no components are supplied from the local market at this stage. This means that there is no benefit for local component manufacturers. Besides, OEMs will not shift the assembling process to next stage, SKD 1 and CKD, if there is no advantage of local component usage such as cheaper parts and tax exemption.

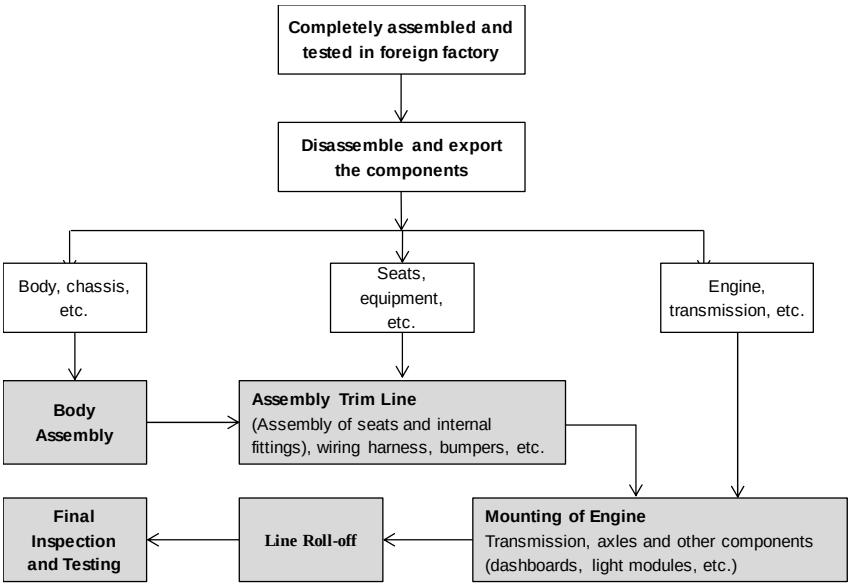
Leyland Busan Motors shifted to second stage of SKD. They paint vehicle bodies in their factory. Some parts such as sealant, polyurethane, glass, adhesives, and batteries are supplied from the local market in Lagos area. But according to the information from the company, some of so-called local parts are imported from foreign companies by the suppliers. Their production volume was 80 busses in November 2014. The suppliers can produce the auto parts with quality that Leyland Busan Motors needs even through the production is mainly hand work.



Source: Prepared by the Survey Team based on the interview and site survey

Figure 2.4-7 Vehicle Assembly Process and Supply Chain in 1990s (Assumed)

Figure 2.4-8 shows the assumed supply chain at the SKD stage. Almost all components will be imported from foreign countries in which automobile assembly companies have their factories.



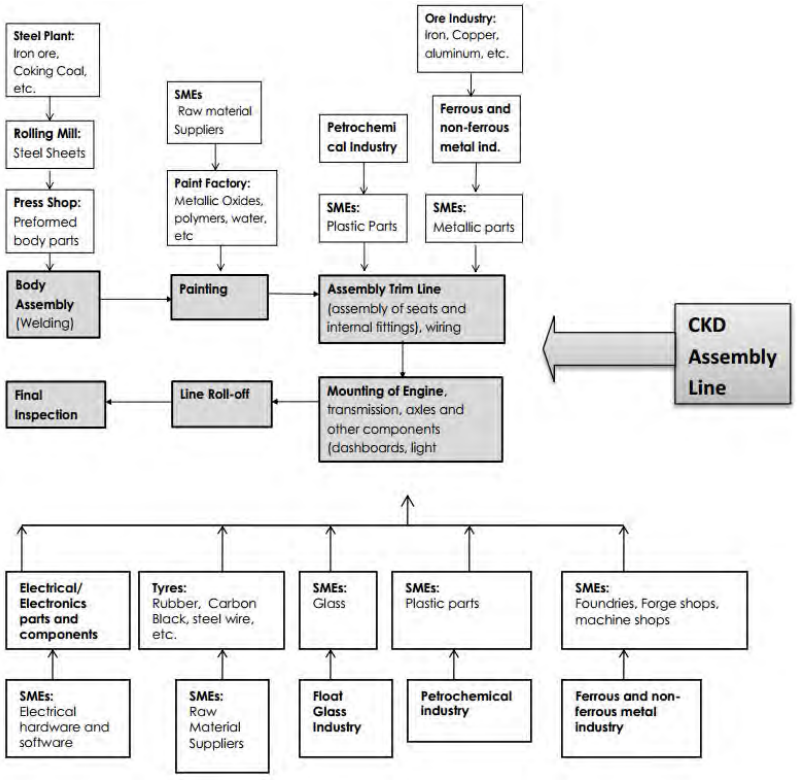
Source: Prepared by the Survey Team based on the interview and site survey

Figure 2.4-8 Vehicle Assembly Process and Supply Chain in SKD 1

As there are very limited job opportunities in the assembly process at this stage, few developments of skills and techniques will be expected. Therefore, it is very important for the Nigerian automotive industry to shift from the SKD stage to the CKD stage and increase the local component ratio. According to HONDA, they need only eight workers to assemble 1,600 cars per year at the SKD stage. For example, assuming the case of 100 percent local manufacturing, producing one car needs 0.66 workers in Mexico (calculation from 1 million workers in automotive industry in 2009 and car production 1.5 million units in 2009). This means about 1,050 workers are required to produce 1,600 cars (Source: the Mexican Automotive Industry Association and JETRO). It depends on the level of CKD, but it can be expected to require 10 times as many jobs compared to the SKD stage.

NAC is expecting that the supply chain will be developed as shown in Figure 2.4-9 at the CKD stage of NAIDP. The highlighted part is the CKD assembly line. According to NAC, many auto components will be supplied locally and the target of additional value rate is more than 60%.

The assembly line is more complicated at CKD stage. This means that operators are requesting more skills and knowledge. Besides, different types of workers such as line maintenance engineers will be needed at this stage. Some components may be supplied from local suppliers. The production volume of passenger cars will reach to at least 100 cars a day. With this volume, the local components suppliers can produce the parts by hand work. However, automated mass-production line is more suitable for components suppliers in terms of quality, cost and delivery. This will lead to the necessity of capital investment in production facilities by the local component suppliers. According to the local component suppliers, one of the issues to revitalise the local auto parts industry in the country is difficulty in getting loans with reasonable terms and conditions.

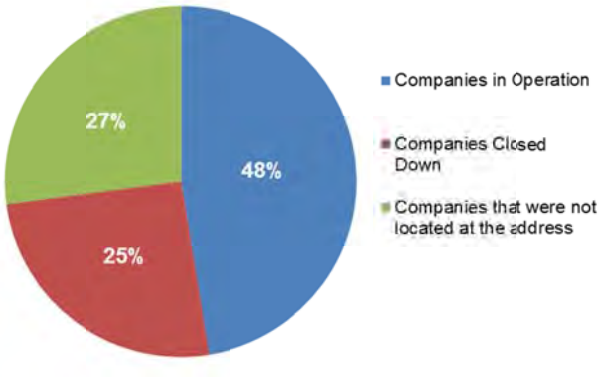


Source: NAIDAP

Figure 2.4-9 Vehicle Assembly Process and Associated Supply Chain in Nigeria at CKD Stage

(2) Local Content Manufacturers

According to the information of local content manufacturers provided by NAC, 61 companies are listed and their products includes brake pads and linings, batteries, car seats, car safety seat belts, filters, rubber parts, wire harness, windscreen, side glasses and so on. However, the survey on local production of automotive component parts conducted by RMRDC shows that 59 local content manufacturers were identified in the south west region of Nigeria. Of these, 15 manufacturers closed down (25 percent) and 16 companies are not located at the address (27 percent), while 28 manufacturers were in operation at the address (48 percent) as shown in Figure 2.4-10. The major reasons of closing-down are 1) low demand for automobile parts produced locally and the stiff competition from imported parts and 2) lack of basic engineering infrastructural facilities such as steady power supply and good road network.



Source: RMRDC

Figure 2.4-10 Current Status of Auto Parts Manufacturers in the South West Region

Table 2.4-8 shows the location and number of local content manufacturers, but as stated above, some of them have been closed down or are not located at the address. The detail list is shown in Appendix-7.

Table 2.4-8 Location and Number of Local Content Manufacturers by State

No.	Location (State)	Number of Manufacturers
1	Lagos	21
2	Anambra	16
3	Kaduna	5
4	Oyo	5
5	Abia	3
6	River	3
7	Kano	2
8	Plateau	2
9	Enugu	2
10	Kwara	1
11	Edo	1
Total		61

Source: NAC

Since NAC has understood that the creation of local content is the cornerstone of the industry's development, the following activities are being implemented by NAC:

(a) Developed project profiles for 52 vehicle parts and components to facilitate investment in local parts manufacturing.

(b) Developed import deletion programme for bicycles and motorcycles

(c) Arranged match-making meetings between the local automotive component industry and those of Japan, South Africa, India and Pakistan

(d) Signed an MOU with the Automotive Components Manufacturers Association of India on the development of local content in Nigeria

(e) With other agencies, conducting workshops to improve the quality and process systems of component manufacturers

To shift from the SKD stage to the CKD stage, quality, cost, and delivery (QCD) are key factors for component manufacturers to supply to assembly companies. To upgrade the QCD level of components manufacturers, National Agency for Science and Engineering Infrastructure (NASENI) activity is very useful.

(3) Dealers

No data about dealers is available, which shows how many dealers there are in Nigeria and in each state. To promote investment from foreign companies, it is necessary to show statistics of market data. And to gather the information about car sales volume, NAC or other organization need to have list of car dealers. NAC is going to introduce licensing systems of all vehicle dealers and importers for sale to the public, as a measure to control and monitor the used and grey vehicle imports. Table 2.4-9 shows the list of dealers and car brands by which the dealers handle. Stallion Group handled six passenger car brands.

Table 2.4-9 Dealers and car brands in Nigeria

Distributor	Dealers	Brand
Toyota (Nigeria) Limited	Total : 25 dealers (Abuja 6, Lagos State 8, Rivers State 5, Others 6)	TOYOTA
Honda Automobile Western Africa Ltd.	Total : 11 dealers (Abuja 1, Lagos State 3, Rivers State 2, Others 5)	HONDA
Stallion Group	No data	Nissan, Porsche, Skoda, Audi, Volkswagen, Hyundai, Mahindra, Ashok Leyland, Foton
Nishizawa (Nigeria) Limited	CFAO : 8 dealers, Kewalram Chanrai Group	MITSUBISHI
Marubeni Nigeria Ltd.	No data	SUZUKI
Peugeot Automobiles Nigeria	Total : 20 dealers (Abuja 4, Lagos State 5, Kano State 1, Kaduna State 3, Others 7)	Peugeot
Dana Motors Nigeria Limited	Total : 8 dealers (Lagos State 1, Edo State 2, Oyo State 1, Kaduna State 1, Others 3)	KIA
Weststar Associates Ltd.	Total : 6 dealers (Lagos State 4, Kaduna State 1, Enugu State 1)	Mercedes-Benz

Source: Compiled by the Survey Team

(4) Service Workshop

Some automobile manufacturers provide service after the sales by certified companies for repair or maintenance of the automobiles. The service workshops certified by the automobile manufacturers in the country are shown in Appendix-8.

Automobile manufacturers recommend their customers to use their certified service workshops. But there are some reasons why the Nigerian people do not use those certified workshops. Most people prefer to use “road side mechanics” because of the following factors:

- The number of certified workshops is not sufficient, compared with that of automobiles in use in the country.
- The repair costs at the certified service shops are much higher than that of road side mechanics.

However, there are some disadvantages of such road side mechanics. They are cheap but their technical knowledge about automobiles is at lower level, especially about newly computerized automobiles. Besides, they use imitation spare parts which quality and durability are low.

According to the result of Preparatory Survey on BOP Business on Automobile Recycling through Empowerment of BOP (funded by JICA, 2014), the number of informal mechanics is about 150,000 in Lagos and 3,000 in Abuja, while there are about 20,000 used car parts shops in Lagos and 500 shops in Abuja. Figure 2.4-11 shows the situation of road side mechanic and used auto parts shop.

Road Side Mechanic

Used Car Parts Shop

Source: JICA, "Preparatory Survey on BOP Business on Automobile Recycling through Empowerment of BOP", 2014

Figure 2.4-11 Situation of Road Side Mechanic and Used Car Parts Shop

Based on the NAC's information, currently, roadworthiness testing and certification is done once a year for private/personal vehicles and twice a year for commercial vehicles. Automobile Administration Department (AAD) of each state is made responsible for the execution of inspection systems. However, the present practice of the inspection systems consists of visual inspection and some test trials only. Therefore, NAC conducted a sensitisation programme on the motor vehicle road worthiness inspection and certification. It is necessary to introduce a new inspection and certification programme that will eliminate the subjectivity in the existing practice and bring in a more objective practice.

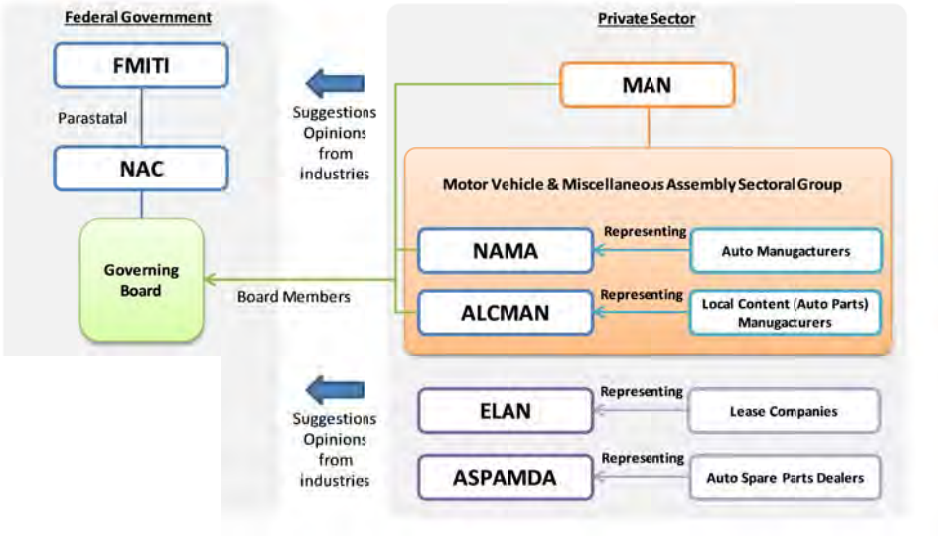
(5) Associations

The following are private companies' associations related to the automotive industry.

- Manufacturers Association of Nigeria (MAN)
- Nigerian Automotive Manufacturers Association (NAMA)
- Automotive Local Content Manufacturers Association of Nigeria (ALCMAN)
- Automotive Spare Parts and Machinery Dealers Association of Nigeria (ASPAMDA)
- Equipment Leasing Association of Nigeria (ELAN)

Figure 2.4-12 shows the relation between the federal government and the private companies' associations. Basically, each association represents each industry and provides the federal government with suggestions from/opinions of member companies. Of these, NAMA and ALCMAN belong to the Motor Vehicle &

Miscellaneous Assembly Group of MAN. MAN, NAMA and ALCMAN are the members of NAC's governing board. Functions of the governing board are approval of plans and budget, and monitoring of its implementation. The associations usually propose plans that they want to promote, and the proposals are discussed in the board meetings.



Source: Compiled by the Survey Team

Figure 2.4-12 Relation between the Federal Government and Private Companies' Associations

Previously, collective actions under the associations were very active because the major assemblers such as PAN, VON and GM initiated the associations' activities. Most of those assemblers closed down their plants or withdrew from the country and their activities have not been active after 2006.

Manufacturers Association of Nigeria (MAN)

The Manufacturers Association of Nigeria (MAN) is a national industrial association serving and representing nearly 2,000 companies in private and public sectors in manufacturing, construction and service sectors of the national economy. MAN has 11 sectoral groups. Motor Vehicle & Miscellaneous Assembly group is one of them. MAN prepared a blueprint for the accelerated development of manufacturing in Nigeria. The blueprint has sector specific recommendations based on the analysis of the sectoral groups. According to the blueprint, major constraints facing the automotive industry are as follows:

- Low local patronage arising from non-implementation of government policy on the patronage of made-in-Nigeria products
- Inconsistent policy: the lifting of ban on importation and the subsequent lowering of import duties resulted in the influx of both new and used cars
- Absence of basic engineering industries, including flat sheet to supply the component needs of the sector

The blueprint suggests adoption of the sectoral strategies to address the specific challenges of sectors and to motivate them to meet the targets set in both the medium and long terms. The following sectoral strategies for the automotive industry are recommended:

- Give high priority to patronage of locally assembled automobiles.
- Reinstate the age limit on imported used cars to eight years.
- Common facilities should be developed for collective response to enhance efficiency gains in industrial clusters for the production of automotive and non-automotive components.
- A thriving automotive industry will have a great multiplier effect on the other sector such as textile, aluminium, iron & steel, computer chips, copper, lead, plastics, vinyl and rubber. Therefore, the government should provide the necessary enabling environment for the thriving of the proper functioning of the aforementioned sectors by way of encouraging linkages.
- Develop and enforce a deliberate tariff regime that ensure 35% differential between FBUs and CKD.
- Maintain the 0% duty on CKD and SKD for agricultural tractors.
- Imports tariffs should be levied with a view to support local production and capacity development rather than from a revenue point of view.
- The importation of a ten-year-age limit on commercial vehicles (trucks and buses).
- Implement the government policy on patronage of local products.
- Nigeria Custom Service to intensify their anti-smuggling activities to check the dumping of used vehicles in the country.
- Encourage corporate bodies to adopt the made-in-Nigeria policy to promote the economy in which they operate.
- Unlock special loans at concessionary interest rate to auto manufacturers as well as component manufacturers.
- Grant tax holiday for auto companies as well as component manufacturers that have made new capital investments towards increasing plant output or launching a new assembly line or pioneer product

Nigerian Automotive Manufacturers Association (NAMA)

The Nigerian Automotive Manufacturers Association (NAMA) is one of the sub-sectoral groups under the motor vehicle and miscellaneous assembly sectoral group of MAN. After decline of automobile assembly in Nigeria, most members of NAMA had withdrawn and there is no active member list, periodic meeting or activities. The association office is located in the premise of VON manufacturing Plant (Stallion Group) in Lagos.

Automotive Local content Manufacturers Association of Nigeria (ALCMAN)

The Automotive Local content Manufacturers Association of Nigeria (ALCMAN) is also one sub-sectoral group under the motor vehicle and miscellaneous assembly sectoral group of MAN. Current situation of ALCMAN is same as NAMA.

Automotive Spare Parts and Machinery Dealers Association of Nigeria (ASPAMDA)

The Automotive Spare Parts and Machinery Dealers Association of Nigeria (ASPAMDA) is a dealers association of automotive spare parts and machinery. ASPAMDA has 11,000 members including both companies and individuals. The member companies in Lagos have a function of wholesale for the shops of spare parts in other states. As for the composition of import and local product, imported auto parts account for 80 percent, while 20 percent of auto parts sold by the member companies are locally produced.

Equipment Leasing Association of Nigeria (ELAN)

The Equipment Leasing Association of Nigeria (ELAN) is a non-profit making organization to promote the business of leasing in Nigeria. Membership of the association ranges from independent leasing companies, banks, finance houses, insurance companies to individuals. ELAN is engaged in various activities such as training and education for practitioners and other stakeholders in the leasing industry, awareness campaigns to provide opportunities for the exchange of ideas and information, provision of consultancy services and research. ELAN has about 270 members. The member companies have many kinds of equipment for leasing and the automobiles account for 60 percent of leasing properties.

Observations from the viewpoint of leasing industry are as follows:

- Leasing is an innovative asset financing alternative, which creates wealth and enhances economic development.
- Leasing, given its developmental attributes, has a major role to play in the successful implementation of NAIDP, especially in the areas of facilitating vehicles acquisition and strengthening the capacity of manufacturers.
- The policy will open a window of opportunities for leasing to increase its penetration and significance in the automotive industry but may as well present some challenges.
- The automotive industry is of immense strategic importance to the economy, creating employment and overall development.
- NAIDP is a welcome development as it is billed to stimulate development in the automotive industry and overall growth of the economy.
- There is the need for a cordial relationship between key stakeholders including government, manufacturers, vendors, buyers and lessors to enhance the attainment of the developmental initiatives of NAIDP.
- There is need for NAC to continue to put in place and sustain mechanisms to ensure standardisation of products and overcome potential perception issue of made-in-Nigeria vehicles.
- Legal framework for the transaction, product availability and reliability, funding, pricing, after sale services and maintenance, support services and strong secondary markets, are some of key considerations for effective participation of the leasing industry under the policy.
- The leasing industry should be supported and put in the right pedestal to sustain and enhance its quota to the developmental initiatives of government in the automotive industry and the economy.
- There is need to create structure that will ensure sustainability of the Automotive Policy over successive

governments.

- There is need for co-operation and support from various government agencies such as the Nigerian Custom Services, for the smooth implementation of the policy.

Based on the understanding abovementioned, ELAN recommends the following:

- ELAN and NAC shall work as partners towards the realisation of the Developmental Initiative of NAIDP.
- Leasing companies shall be incorporated into vehicle Credit Finance Scheme to enable them access funds for lease financing.
- NAC shall support efforts of ELAN in the pursuit of the Leasing Law to strengthen the capacity of the leasing industry to play its role in the new policy.
- Sustained engagement shall be made among stakeholders in the automotive industry to enhance the smooth implementation of the policy.

Many of automotive assemblers and components manufacturers think that NAIDP is a good policy. They perceive that if NAC implements all NAIDP items, the automobile industry will be revived someday. Implementing the policy is the highest priority at this moment.

(6) Other Relevant Sector

Car Insurance

Car insurance is one of the sectors related to the automotive industry. In Nigeria, the third party car insurance plan is compulsory by law. There are three plans for the car insurance as follows:

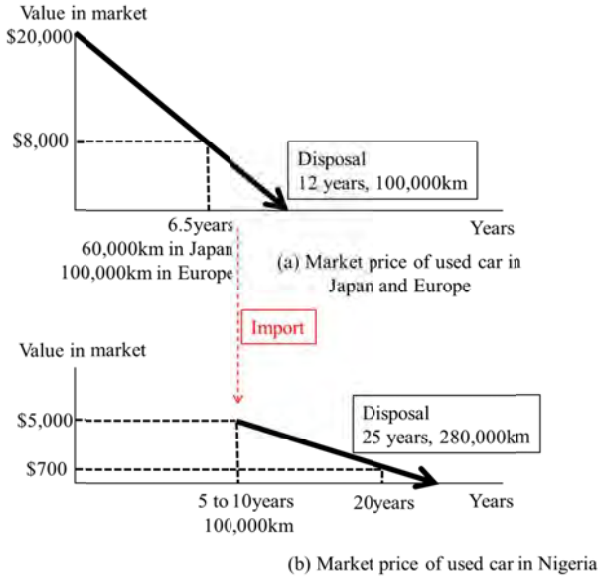
- Comprehensive
- Third party fire and theft: Coverage for the cost of claims made by third parties in the event of an accident, and damage done to a car through theft or fire
- Third party only: Coverage for the cost of injuries caused to another person and the cost of repairing or replacing another person's property damaged by a driver as a result of a car accident

Many insurance companies sell the plans and some of auto dealers have relationship with the insurance companies.

Recycling Business

a. Collection of Used Cars

According to NAC, it is said that there are about 8 million cars in use in Nigeria, and 5% of them are discarded every year. There are three types of discarded cars: accident cars, old cars with usable parts, and old cars with unusable parts. The market prices of discarded cars depend on the parts values. Figure 2.4-13 shows the relationship between the number of miles driven, used years and market price. Table 2.4-10 shows selling price of used car in Nigeria.



Source: JICA, "Preparatory Survey on BOP Business on Automobile Recycling through Empowerment of BOP", 2014

Figure 2.4-13 Market Price and the Number of Miles Driven

Table 2.4-10 Selling Price of Discarded Car in Nigeria

Type of Used Car	Selling Price(NGN)
Accident car	200,000～
Cars with usable parts	30,000～200,000
Cars with unusable parts	20,000～30,000

Source: JICA, "Preparatory Survey on BOP Business on Automobile Recycling through Empowerment of BOP", 2014

The largest market of discarded cars in Lagos is Owode Onirin. There are 1,500 small and medium wreckers. The largest market in Abuja is Fanteka-Dutses. There are about 50 small or medium wreckers and about 500 people are working for them. They purchase accident cars and un-repairable discarded cars mainly from individuals. They also purchase accident cars and un-repairable discarded cars from the government via auction. Buying price depends on model year, damage level, and value of parts. The purchased cars are dismantled and valuable parts are sold to car parts markets. Remaining metal scraps are sold to steel mills. The technical level of wreckers is very low. They use very basic tools and the wrecking work is inefficient and time consuming.

The largest used car parts market in Lagos is Ladipo market that is the largest one in West Africa. The large used car parts markets in Abuja are Apo and Zuba. Most of the used car parts sold in Nigeria are imported from Japan, Europe, and USA. Dealers import the auto parts by themselves and operate their warehouse and shops. The prices of parts depend on the year model, condition, and demand. Used engine sold in Abuja is 20 – 30 percent higher than that in Lagos. As most parts are imported via Lagos port, the logistics cost from Lagos to Abuja is charged on the selling price in Abuja. Consumables like filters, tyres, brake pads, light and glass account for the largest part of demand for the used auto parts.

2.5 Private Investment in the Automotive Industry

2.5.1 Investment Promotion in Nigeria

(1) Investment Incentives

The investment incentives are set by the federal government to promote investment from private sector within and outside the country. The incentives given to investors are listed in Table 2.5-1. According to the Nigerian Investment Promotion Commission (NIPC), a federal authority responsible for investment promotion, the companies' income tax exemption is basically applied to investors for three year and another two years could be added depending on the rationality. Moreover, the provision of incentives is negotiable depending on extent of contribution to the development of national economy.

Table 2.5-1 Investment Incentives in Nigeria

No.	Incentives	Remarks		
1	Companies Income Tax	The current tax rate is 30% in all sectors, except for petroleum.		
2	Pioneer Status	Five-year tax holiday in respect of industries located in economically disadvantaged local government area. Minimum capital of N10 million and capital expenditure N5million required.		
3i	Tax Relief for Research and Development (R&D)	Up to 120 % expenses on R&D and 140 % expense on R&D on local raw material are tax deductible.		
4	Allowance for Automobile Related Industries	Category of Expenditure	Initial Allowance	Annual Allowance
		Industrial Building Expenditure	15%	10%
		Research and Development Expenditure	25%	12%
		Motor Vehicle Expenditure	25%	20%
		Plant	20%	10%
5	In-Plant Training	Two percent tax concession is applicable for five years to a company that have set up in-plant training facilities.		
6i	Investment in Infrastructure	20% of the cost of providing infrastructure is tax deductible for a company that invests in infrastructural facilities, such as access roads, pipe borne water and electricity.		
7	Investment in Economically Disadvantaged Areas	A pioneer industry sited in economically disadvantaged area is entitled to 100% tax holiday for seven years and an additional 5% capital depreciation allowance over and above the initial capital depreciation allowance.		
8	Labour Intensive Mode of Production	A company employing more than 1,000 persons receives 15 percent tax concession, while a company employing more than 200 receives 7 percent and a company employing 100 receives 6 percent.		
9	Local Value Added	10% tax concession applies engineering industries that use some finished imported products serves as inputs.		
10	Re-Investment Allowance	Manufacturing companies incur capital expenditure for expansion, modernization, diversification of products is granted for this allowance.		
11	Minimum Local Raw Materials Utilization	A tax credit of 20% is granted for five years for attaining the minimum level of local raw material sourcing and utilization. The minimum levels of local raw materials sourcing and utilization by sectors are Agro-allied- 70%, Engineering - 60%, Chemicals - 60%, Petrochemicals - 70%.		
12	Ownership Structure	Foreigners can own 100% shares in any company.		
13	Repatriation of Profit	Foreign investors are free to repatriate their profits and dividends.		

Source: NIPC

The One Stop Investment Centre (OSIC) was set up in the headquarters of NIPC for investment promotion. Relevant government agencies are in one location for the purpose of facilitation of administrative process for starting business and investment in Nigeria.

(2) Free Trade Zones

The Free Trade Zones (FTZs) are set up for manufacturing concerns producing mainly for the export market. In Nigeria, there are two types of free trade concept: the specialised zone for oil and gas and the general-purpose trade/export zone. The specialised zone is managed by the Oil & Gas Free Zone Authority (OGFZA), while the Nigerian Export Processing Zone Authority (NEPZA) is responsible for management of the general-purpose zones. The following incentives are applied to the industry in the FTZ.

- Complete holiday from all federal, state and local government taxes, rates, and levies
- Duty free importation of capital goods, machinery/components, spare parts, raw materials and consumable items in the zones
- 100% foreign ownership of investments
- 100% repatriation of capital, profits and dividends
- Waiver of all imports and export licenses
- Waiver on all expatriate quotas
- One-stop approvals for permits, operating license and incorporation papers
- Permission to sell 100% of goods into the domestic market (However, when selling into the domestic market, applicable customs duty on imported raw material shall apply)
- For prohibited items in the custom territory, free zone goods are allowed for sale provided such goods meet the requirement of up to 35% domestic value addition
- Waiver on all expatriate quotas for companies operating in the zones
- Minimize delays in the movement of goods and services
- Rent free land during the first six months of construction (for government owned zones)

The list of active zones and ones awaiting approval respectively is shown in Annex-5. As shown in the table, Lekki Free Zone, a candidate site of supplier park in Lagos State, is listed as operational status, while the candidate site in Osun State has not been listed.

(3) Economic Community of West African States (ECOWAS)

The Economic Community of West African States (ECOWAS) is a regional group of 15 West African countries, founded in 1975, aiming to promote economic integration in "all fields of economic activity, particularly industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial questions, social and cultural matters. According to the ECOWAS Trade Liberalisation Scheme (ETLS), certain exporting products (agricultural products, hand-crafts, raw materials and processed goods) within the ECOWAS members are exempt from taxation. Such products consist of 1) more than 60% of local content in weight, 2) more than 40% of local content in value and 3) more than 35% of valued added

within ECOWAS. Additional approval of each member of ECOWAS is necessary to be obtained for using the scheme. The federal government considers the export to the ECOWAS member countries as an attractive point to foreign investors.

2.5.2 Investment Situation after the New Automotive Policy

Some automobile companies that import FBUs and sell them in Nigeria started or planned to set up assembly plants in Nigeria, as shown in Table 2.4-1. This movement was caused by possible drastic reduction of imported new car sales due to the fiscal measures at a maximum of 70 percent on new FBUs. According to NAC, the existing assembly plants such as PAN, INNOSON and VON (Stallion) have responded quickly to the policy. PAN resumed assembly of Peugeot cars in July 2014. VON has started assembling Nissan and Hyundai vehicles. INNOSON has started passenger car assembly in addition to commercial vehicles, while Dana Motors will soon start assembling Kia and Renault vehicles. Kewalram Chanrai Group has initiated discussions with GM and Mitsubishi to assemble light commercial and passenger vehicles. The survey team also found the other foreign manufacturers would start to set up assembly plant for passenger vehicle in 2015.

2.5.3 Perception and Needs of Foreign Companies

(1) Perception of Foreign Companies

Fiscal incentives such as an increase of tariffs on imported FBUs will induce production of locally assembled car, but it is not enough for starting production by using local component. Foreign companies focused on manufacturing cars by assembling purely imported parts. Using domestic parts is not practical for them due to less competitiveness of local-made products in terms of quality in mass production basis and cost. The foreign manufactures perceive that local-made components required for producing automobile simply do not exist in Nigeria.

(2) Needs of Foreign Companies

Infrastructure Development

Lack of infrastructure is a major concern of foreign investors. Steady electric power supply must be secured for production. Currently the companies need to set up own power generator at high cost as the current electric power supply is not secured such as many interruption of electric power supply in a day. Also, existing transport system and road network are inadequate in terms of logistics and might increase the business cost.

Public Security

Public security is very important for foreign manufactures. Security of foreign workers is a very serious problem as foreign technical staffs need to stay for a long period of time to invest facility in Nigeria. Although the violent activities of fundamentalists in the northeast part of the country and kidnapping in certain parts of

southern Nigeria are far from major business district of Lagos and Abuja, such incidents are obstruction for investment plan in Nigeria as it cause a perception of weak governance for public security.

Monitoring System for Implementation of the New Auto Policy

Monitoring system for implementation of the new auto policy is necessary. Not only setting up new regulations and creating incentives for auto industry, it is imperative for companies that the policy and regulations should be monitored for ensuring its steady implementation. Otherwise, companies in compliance with the law get the raw deal and lose the motivation to invest.

Skills Development

Skill training supplied by the government institutions is not matching the required level of foreign investors. Most of skill training programmes in public schools/institutions are not practical enough to work in a field as instructors themselves do not have experience in working in international car manufactures. Specialized skill training programmes are provided by the manufactures so the further improvement of basic education system for broader range of Nigerian are more important as it increases the mass of potential employment of local staffs.

Reliable Import Tariff Policy

The steady long-term tariff system is required to attract foreign suppliers/manufactures investment in Nigeria. There was an example of unreliable import tariff policy in the past, such as raising tariff rate on importing rice that was withdrawn immediately after policy implementation. Such unreliable import tariff policy may be hampering the investment in auto industries that requires a long term investment plan.

Control of Parallel Imports/Grey Imports

Parallel imports or grey imports of FBUs from other countries are not controlled and the market of these cars is about ten times bigger than that of new cars according to the information of car manufacturers. These cars are treated as used cars and the tariff applied to them is the rate for used cars. It is necessary to regulate the parallel imports together with the imports of used cars for promotion of new car sales in Nigeria.

Foreign Exchange

Steady Nigerian Naira rate against major currencies is imperative for assembler plants as most of component parts are imported in terms of major currencies, especially US Dollars.

2.6 Legal Framework related to the Automotive Industry

2.6.1 Prevailing Laws and Regulations

(1) National Automotive Council Act, 1993 (No. 84)

This act provides the basic structure of the council such as membership, functions, appointment of staff and funds. According to Article 9 it was stipulated that two percent of the Cost, Insurance and Freight (CIF) value of all imported FBUs, auto component spare parts, CKD and raw materials brought in for the automotive sub-sector was included in the sources of the council's funds. However, the act was amended in 2007 and the paragraph on two percent of CIF was deleted.

(2) National Automotive Council (Amendment) Act, 2007 (No. 8)

This act amends the National Automotive Council Act to abolish the two percent of CIF value of all imported FBUs, auto component spare parts, CKD and raw materials brought in for the automotive sub-sector. Previously, the two percent of CIF was reserved and utilised for ADF and capital investment in the automotive industry. However, there was no additional accumulation to the ADF after this amendment.

(3) National Automotive Design and Development Council Act, 2014 (No. 6)

This act provides repeal of the Centre for Automotive Design and Development Act and National Automotive Council Act, establishment of the National Automotive Design and Development Council with merger of NAC and the centre for Automotive Design and Development (CADD), functions of the council, staff of the council, financial provisions and so on. The article of the financial provision includes the two percent of CIF value of all imported automotive FBUs, auto component spare parts and SKD units. This means that the additional accumulation of ADF is resumed after promulgation of this act.

(4) Other Relevant Regulations

Road Traffic

The National Road Traffic Regulation (NRTR) 2004 provides the procedure of vehicle registration, issuance of vehicle license and application of driver license. As for the vehicle registration, it is stipulated that vehicle owners should submit the following documents as well as application form to Department of Motor Vehicle Administration, FRSC.

- Invoice and payment receipt of an accredited motor vehicle dealer
- Certificate of payment or exemption from payment of import duty issued by or under the authority of the Nigeria Customs Service, where the vehicle is an imported vehicle

The Road Transport Safety Standardization Scheme (RTSSS) was created in 2009 based on the National Road Traffic Regulation 2004 and composed of the following areas:

- Compilation and Registration of fleet operators

- Certification of transport operators
- Improving quality of driver's training
- Collaborative efforts among law makers, law enforcement agencies and transport operators
- Continuous inspection of fleet operators/activities
- Enforcement of model safety policy for fleet operators
- Evaluation and Reporting.

The area of certification of transport operators includes the vehicle safety standards to be followed by the fleet operators, as shown in Appendix-10.

Import Prohibition

According to the import prohibition list provided by NCS, an import of the following item is prohibited:

- Used Motor Vehicles above fifteen (15) years from the year of manufacture
  (H.S. Codes 8703.1000 – 8703.9000)

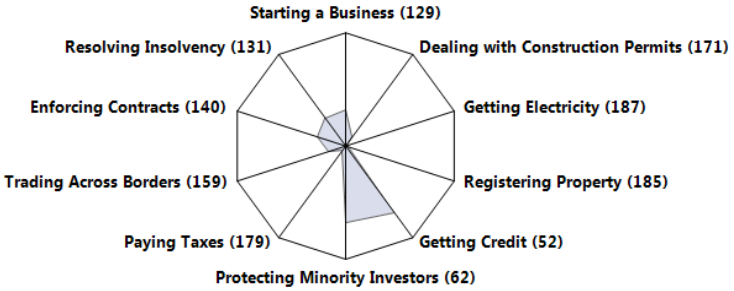
2.6.2 Issues of the Existing Legal Framework

(1) Change or Delay in Laws and Government Policies

Sometimes the government can be slow and inconsistent to implement its policies to be effective, especially for changing the policy related to the vested interests of the industry. For instance, new tax levy that is planned to be effective in 2014 on used cars is delayed more than six months. Such vagary of implementing policy is a major concern for setting up production facilities by foreign companies.

(2) Effectiveness of Law Enforcement

Nigeria ranks 170 out of 189 economies in the World Bank's Doing Business report. This is below South Africa (rank 43), Kenya (rank 136) and India (rank 142). It also ranks 136 among 175 countries for transparency of the government based on Transparency International's Corruption Perception Index. As the enforcing contracts ranks 140, the court system is not as effective as foreign investors would have expected. Figure 2.6-1 shows the rankings on Doing Business perspective.



Note: Scale: Rank 189 centre, Rank 1 outer edge

Source: World Bank

Figure 2.6-1 Rankings on Doing Business Topics-Nigeria

2.7 Capacity of Related Government Agencies

2.7.1 Federal Ministry of Industry, Trade and Investment

The Federal Ministry of Industry, Trade and Investment (FMITI) has a role in formulating and implementing policies and programmes to attract investment, boost industrialization, increase trade and exports and develop enterprises, in order to achieve promoting industrial development, trade and investment with increase in production that will lead to wealth and job creation and export of non-oil and gas products and stimulating the growth of the domestic economy for self-reliance and export and its integration into the global market. Total number of FMITI staff is about 2,000.

The available information to assess the capacity of FMITI is limited, but the planning of specific sectors is a task of parastatals and the automotive sector planning need to be carried out by NAC. Therefore, interventions for specific sectors are initiated by a parastatal that is made responsible for the sector development. For example, one local government one product programme is promoted by Small & Medium Enterprises Development Agency of Nigeria (SMEDAN) because the programme aims at SMEs development. There are 14 parastatals that fall under FMITI and those parastatals are made responsible for the policy implementation for each sector. The parastatal responsible for promotion of automotive industry development is NAC.

- Abuja Securities & Commodities Exchange
- Bank of Industry
- Consumer Protection Council
- Corporate Affairs Commission
- Industrial Training Fund
- Financial Reporting Council of Nigeria
- Nigeria Export Processing Zone Authority
- Nigeria Export Promotion Council
- National Automotive Council
- National Sugar Development Council
- Oil & Gas Free Zone Authority
- Standard Organisation of Nigeria
- Small & Medium Enterprises Development Agency of Nigeria
- Nigeria Investment Promotion Commission

Therefore, a counterpart organisation of assistance programmes for specific industrial sector needs to be not FMITI but a parastatal that is made responsible for the related sector.

2.7.2 National Automotive Council

NAC was established in 1993 as a parastatal of the Federal Ministry of Industry that would carry out the National Automotive Policy so as to revitalise the auto industry and to achieve the production of a truly Nigerian vehicle. The current NAC's organizational structure is an interim one because it is planned to merge with the Centre for Automotive Design and Development (CADD) in 2015. After the merger with CADD, the name of organization will be the National Automotive Design and Development Council (NADDC). CADD was established in 1992 to research, develop and produce Nigerian made vehicles of international standards using as much as possible local capacities and capabilities. However, the fund to promote CADD's research activities has not been allocated since 2005 due to policy change. There are four departments: 1) Administration, 2) Industrial infrastructure, 3) Finance and accounts and 4) Policy planning.
Departments directly related to the policy execution are the Policy Planning Department and Industrial Infrastructure Department. Functions of those departments are as follows:

Policy Planning Department

Planning, implementation and evaluation of the council's programmes, UNIDO matters, procurement operations, project monitoring, generating statistical data, and conducting industrial sectoral studies

Industrial Infrastructure Department

Coordination and implementation of policies to promote the development of local components and parts, monitoring of local content deletion programme of auto component, identification and classification of components and parts for standardization.

As for the human resources development, NAC prepares an annual staff local training schedule. The annual schedule is composed of the course title, target officers, training providers, duration and cost. However, NAC do not have any medium-term plan for the staff training. The main target of training courses 2015 is improvement of management skills and it covers management skill, bid evaluation, total quality management, suppliers and materials management, policy design and management, and so on. Total training cost for 2015 programmes is about NGN 34 million.
Table 2.7-1 shows the NAC's staff number by department. NAC has 80 staff in total, of which six officials are deployed to the Policy and Planning Department as planning officers, while the Industrial Infrastructure Department has nine technical officers. However, most of the technical officers in both departments are appointed in 2013 and 2014. Annual number of recruitment for the entire council is about eight or nine positions in 2013 and 2014. It can be inferred that they do not have much knowledge about the automotive industry development except for some senior members and the human resources who have experience in the automotive industry development are very limited in NAC. Therefore, it is necessary to develop the capacity of staff members, especially working staff of Policy Planning Department and Industrial Infrastructure Department.

Table 2.7-1 NAC's staff Number by Department (2014)

No.	Department	Staff	Remarks
1	Director General's Office	6	
2	Audit Unit	5	
3	Information and Public Relation Unit	5	
4	Legal Unit	1	
5	Administration Department	25	
6	Finance & Accounts Department	13	
7	Policy Planning Department	12	6 for planning officers including a director
8	Industrial Infrastructure Department	11	9 for industrial infrastructure officers including a director
9	Procurement Department	2	
Total		80	

Source: NAC

NAC is made up of a governing board and its membership is drawn from relevant agencies and comprises of representatives of the government as follows:

< Federal Ministry and Parastatals >

- Federal Ministry of Industry, Trade and Investment (FMITI): Supervisory organisation of NAC responsible for policy making at the federal level
- Standards Organization of Nigeria (SON): Parastatal of FMITI responsible for standardisation of auto industries and encouragement of local content manufactures to apply for the QMS certification
- Raw Materials Research and Development Council (RMRDC): Parastatal of FMITI responsible for promotion of the development and utilization of the nation's vast industrial raw material

< Industries >

- Manufacturers Association of Nigeria (MAN): Association representing the private manufacturing industries
- Nigerian Automotive Manufacturers Association (NAMA): Association representing the private automotive manufactures
- Automotive Local content Manufacturers Association of Nigeria (ALCMAN): Association representing local content manufactures

< Society >

- Nigerian Society of Engineers (NSE): Association for the Engineering Profession in Nigeria representing opinion of engineering society

Table 2.7-2 shows the NAC's financial Statements for the recent five years. NAC is not a private company to pursue business profits and its activity is focused on public mission of development of Nigerian Automotive industry. Accordingly, the financial statement is not disclosed in public. The financial summary is obtained by the survey team. NAC's main source of funding is capital grants from the government, accumulated surplus and revaluation reserve and no bank borrowings. It has the financial strength as the equity ratio is 93% and the current ratio (current assets/current liability) is almost five times in 2013. Special Project Release is a new

source of funding that finances big increase of fixed assets in 2013. This fund is aimed at advancing the frontiers of technological development of the automotive sector. As such case, big expenditure for promoting the policy is financed by the government that keeps stable financial security of the organization.

Table 2.7-2 NAC's Financial Statements (2009-2013)

(Unit: thousand NGN)

Balance Sheet					
	2009	*2010*	*2011*	*2012*	*2013*
Fixed Assets	130,631	132,596	125,149	280,661	1,415,743
Current Assets					
Stock	2,092	6,507	14,796	19,187	13,533
Debtors & Prepayment	110,630	142,082	198,713	197,978	180,482
Cash	58,984	85,812	50,025	1,399,009	576,773
Total Current Assets	171,706	234,401	263,534	1,616,174	770,788
Current Liabilities					
Creditors & Accruals	14,091	71,635	95,698	126,650	155,207
Net Current Assets	157,615	162,766	167,836	1,489,524	615,581
Net Assets	288,246	295,362	292,985	1,770,185	2,031,324
Financed by					
Capital Grants	162,584	162,584	162,584	162,584	333,450
Accumulated Surplus	125,661	132,778	130,401	165,919	148,874
Revaluation Reserve				149,901	149,901
Special Project Release				1,291,781	1,399,099
Total Capital	288,245	295,362	292,985	1,770,185	2,031,324
Income & Expenditure Account					
	2009	*2010*	*2011*	*2012*	*2013*
Income					
Recurrent Subvention	72,402	107,561	137,033	116,642	116,988
Income from 2% NAC Fund	372,672	529,154	820,352	774,171	645,160
Other Income	3,205	1,033	2,438	491	
Total Income	448,279	637,748	959,823	891,304	762,148
Expenditure					
Operating Expenses	406,749	601,374	921,695	742,352	854,700
Depreciation	28,747	16,876	33,017	16,823	19,471
Total Expenditure	435,496	618,250	954,712	759,175	874,171
Surplus/(Deficit) for the year before transfer to Consolidated Revenue Fund	12,783	19,498	5,111	132,129	-112,023
Transfer to Consolidated Revenue Fund	-10,227	-15,598	-4,089	-105,856	-49,267
Surplus/(Deficit) for the year transferred to Accumulated Fund					
	2,556	3,900	1,022	26,273	-161,290

Source: NAC

Basically, financial capacity for NAC's administration and the number of human resources are strong enough to implement NAIDP and technical capacity will be strengthened after the merger with CADD. However, it is necessary to develop the capacity of staff members, especially working staff of Policy Planning Department and Industrial Infrastructure Department on market analysis and development of auto parts industry and supply chain between assemblers and local content manufacturers. Especially, development of action plans that

elaborate operational plan of NAIDP and task allocation to official of those departments are urgently required to meet the needs of automotive industry and show the actual steps toward realisation of NAIDP.

In addition, what needs to be strengthened for NAC is the volume of ADF. In order to develop the automotive industry, especially auto parts industry, a fund with easy access to the local manufacturers is indispensable for promotion of investment in manufacturing tools, equipment and machinery. However, currently, access to the ADF is not easy for them and commercial banks provide them with only loans with high interest rate. Low demand for local manufacturing and loans with high interest rate leads to low investment in the auto parts industry. This may hinders the development of auto parts industry. Therefore, two percent levy on all automobiles and auto parts imported into the country must be utilized with a strategy to help develop the local automotive industry.

An act on the establishment of NADDC was gazetted in May 2014 and NAC is working for preparation of the merger with CADD. According the NADDC manpower plan, the number of established positions (total number of planned positions) is 241. Of these, 124 positions are occupied with the existing staff of CADD and NAC and the remaining 117 are vacancies and need to be recruited (see Table 2.7-3). Qualifications and work experience required depend on posts. For example, the qualifications for a senior industrial officer, Policy, Planning and Statistics Department, are 1) Bachelor of Engineering, Bachelor of Science or Master of Science in industrial or production engineering, and 2) three to six years cognate work experience. The qualifications for a principal engineer, Standards Division, are 1) Bachelor of Engineering, Bachelor of Science, Master of Science or PhD in automobile and mechanical engineering, and 2) two to nine years cognate working experience.

Table 2.7-3 Summary NADDC Manpower Plan

No.	Department/Unit	Established Positions	Occupied Positions	Vacant Positions
1	DG's Office	5	5	0
2	Policy, Planning and Statistics	20	10	10
3	Industrial Infrastructure Development	16	11	5
4	Procurement	11	3	8
5	Administration	47	42	5
6	Finance and Accounts	23	16	7
7	Testing and Standards	67	5	62
8	Research, Design and Development	36	19	17
9	Audit	8	6	2
10	Information and Public Relations	6	6	0
11	Legal	2	1	1
	Total	241	124	117

Source: NAC

2.7.3 Raw Materials Research and Development Council

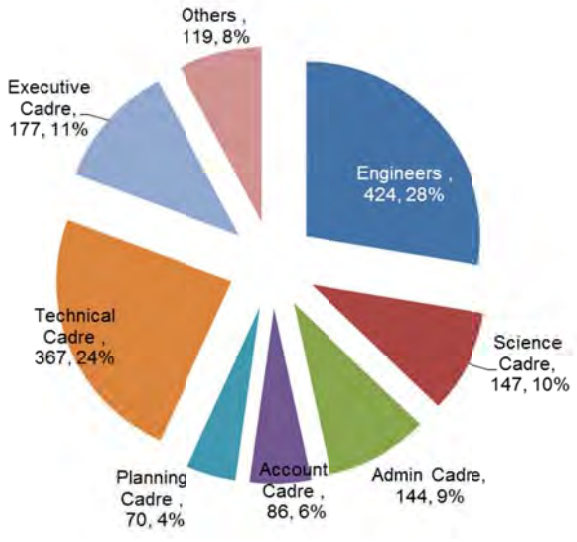
The Raw Materials Research and Development Council (RMRDC) is a parastatal of FMITI, established by Decree (Now Act) No.39 of 1987 as Nigeria's focal point for the development and utilization of the nation's vast industrial raw material. RMRDC has the Motor Vehicles and Miscellaneous Division in the Technology Development Department. Functions of the division are as follows:

- Initiates, coordinates and liaises with relevant organisations on R&D technology development and investment activities on raw materials necessary for the sector
- Promotes R&D projects for (manufactured) components for the motor vehicle industry in Nigeria
- Promotes the development of National Auto Local Content Programme in collaboration with the National Automotive Design and Development Council (NADDC)
- Conducts specific studies on raw materials requirement of the sector
- Any other activities that may be assigned

Similar to NAC, RMRDC is an authority to develop policies and promote R&D activities on local raw material utilisation. However, they have experience of fact finding survey on current situation of local content manufacturers in south-west region of the country. The survey results are very important information to understand the technical skills and capacity of local content manufacturers and plan local content manufacturer development. Therefore, RMRDC is one of the key authorities to elaborate action plans of NAIDP, especially local content industry development. Actual R&D activities are carried out by research institutes such as universities.

2.7.4 National Agency for Science and Engineering Infrastructure

The National Agency for Science and Engineering Infrastructure (NASENI) was established in 1992 to create an enabling knowledge-driven environment for local mass- production of standard parts, goods and services required for the nation's technology advancement. NASENI has more than 1,500 of human resources and facilities. Figure 2.7-1 and Figure 2.7-2 show staff distribution and equipment in NASENI respectively. NASENI achieved some pronounced results in 2013 and 2014 as shown in Figure 2.7-3.



Source: NASENI

Figure 2.7-1 Staff Distribution of NASENI

a) Vertical Machining Centre

b) Electric Discharge Machine

c) Surface Grinding Machine

d) CNC Lathe

Source: NASENI

Figure 2.7-2 Equipment installed in NASENI

Source: NASENI

Figure 2.7-3 First Made-in-Nigeria Motorcycle commissioned by NASENI

NASENI is working on the following researches:

- Advanced composite materials research for automotive applications
- NASENI electric car & unmanned aerial vehicle project

- Modification of the existing manufacturing facilities
- Property optimization for green composite materials for automotive and other applications
- Standardization of green composite material for environmental stability
- Recyclability of green composite material

Basically, local component manufacturers have to produce their products with mass volume, considering the cost efficiency. However, the products by hand work must be more expensive than imported components. Although they must achieve mass production with high quality and low cost, their capacity is very limited. Considering the current situation of local content manufacturers, quality improvement of auto parts may be difficult for individual manufacturers. Therefore, NASENI can help the first step to acquire technical knowledge about how to produce quality products and also can function as incubator. NASENI can be a hub of local content manufacturer development in collaboration with NAC, RMRDC, SON and some private company associations like MAN and chambers of commerce.

According to NASENI, they are committed to sustaining the current technological form, not in cycle manufacturing alone, but also in the manufacturing of heavy tools and equipment. To that end, it will be partnering with some key players in the private sector towards gaining some advantages in manufacturing technologies. As part of measures to boost technological advancement in the country, they made a memorandum of understanding (MOU) with Coscharis Technologies Limited, an information and communications technology (ICT) solutions company, on the promotion and adoption of advanced manufacturing technologies.

2.7.5 Industrial Training Fund

The Industrial Training Fund was established in 1971 to promote and encourage the acquisition of industrial and commercial skills required for national economic development. ITF provides direct training, vocational and apprentice training, research and consultancy service, reimbursement of up to 50 percent levy paid by employers of labour registered with it, and administers the students industrial work experience scheme (SIWES). It also provides human resource development information and training technology service to industry and commerce to enhance their manpower capacity and in-house training delivery effort. ITF has five industrial skills training centres, ISTC Kano, Centre for Excellence in Jos, Model Skills Training Centre in Abuja, ISTC Lokoja and ISTC Ikeja, and 32 area offices. The ITF's organisational structure is shown in Appendix-5. Departments related to the human resources development are Business Training Development, Technical Vocational and Skills Training Development Department and Research & Curriculum Development Department. ITF has made some modest achievements which include partnering with some companies to train craftsmen / technicians, such as British American Tobacco, Plc, Plc, Nigeria Dock Nig. Plc, Nigeria Breweries Plc, Industrial Cartons Ltd., and so on.

ITF also collaborates with Dangote Cement Plc. and started the activity in 2008 with a request to assist in setting up an apprenticeship skills training centre. In line with Dangote Cement production skills requirement, the company identified six trade areas for the apprentice training, namely, welding and fabrication,

instrumentation, machining and fitting, electrical installation & maintenance, automotive technicians, and light & heavy duty, fitters/mechanical maintenance. The program is structured into five phases of one year from December 2010 to February 2014. Totally 169 participants were trained in the programme.

According to the interview with automotive companies in the country, public training institutions such as vocational training centres and universities can provide students with basic skills and theoretical knowledge, but those are not practical ones and do not meet the expectation of automotive companies. This may be caused by the following factors of training institutions:

- Lack of technical knowledge about automobile assembling and auto parts manufacturing
- Lack of tools and equipment to provide practical training programmes
- Lack of opportunities to collaborate with the automotive industry due to less demand of local assembling and manufacturing

Lack of technical knowledge about automobile assembling and auto parts manufacturing

Basically, contents of public training programmes must be wide and shallow because target technic is very wide. Public training institutions can provide basic and standard technical knowledge. On the other hand, company needs very narrow and deep knowledge. This is the biggest gap with the public training and private company training. For example, curriculum of the public training programmes normally includes the knowledge of standard and minimum operations for some kinds of machines. But companies need not only the standard operation methods, but also expanded application such as failure analysis and trouble shooting.

Lack of tools and equipment to provide practical training programmes

For the same reasons as above, public training institutions need to provide very wide technics. As their budget is limited, tools and equipment they can introduce might be very basic ones or might not be replaced to the up-to-date ones. On the other hand, the number of tools and equipment might be less than those of the public training institutions, but the latest and high performance ones might be installed based on the cost performance factor.

Lack of opportunities to collaborate with the automotive industry due to less demand of local assembling and manufacturing

This is the very fundamental problem of automotive industry in the country. To solve this problem, NAIDP should include a plan to develop auto parts industry and NAC and ITF must work together with OEMs and local content manufacturers for provision of more practical training opportunities and curriculums.

2.7.6 Standards Organisation of Nigeria

The Standards Organisation of Nigeria (SON) is one of the parastatals under FMITI and is made responsible for standards elaboration, specifications, quality assurance system of commodities, manufactured industrial and imported products and services generally and metrology services. SON currently offers certification in quality management systems, environmental management systems, occupational health & safety management

systems and food safety management system. SON has five (5) principal specialised laboratories situated around the country: a) Food Technology Laboratory in Lagos, b) Chemical Technology Laboratory in Lagos, c) Electrical/electronic Laboratory in Lagos, d) Engineering Laboratory in Enugu, and e) Textile and Leather Laboratory in Kaduna. As SON is an authority responsible for standards and has experience of running testing laboratories, SON and NAC are working together on standardisation of local auto parts manufacturers through sensitisation workshops and establishment of automotive component test centres. Therefore, SON is one of related organisations to be involved in the development auto parts industry, standardisation of local auto parts manufacturers and establishment of supply chain between assemblers and local auto parts manufacturers.

2.7.7 Small and Medium Enterprise Development Agency of Nigeria

The Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) is one of the parastatals under FMITI and is made responsible for stimulating, monitoring and coordinating the development of the MSMEs, initiating and articulating policy ideas for MSMEs growth and development, and promoting and facilitating development programmes, instruments and support services to accelerate the development and modernization of MSME operations. SMEDAN has six (6) zonal offices in the country. The core services provided by SMEDAN are general business consultation and capacity building and promotional services to MSMEs, establishment of industrial parks and regional SME development centres, and enhancement of MSMEs access to finance. However, SMEDAN is not directly involved in the implementation of NAIDP. When it comes to the development auto parts industry, most of the manufacturers are classified into MSMEs. Therefore, SMEDAN is also one of the related organisations for further implementation of NAIDP.

2.7.8 National Office for Technology Acquisition and Promotion (NOTAP)

The National Office for Technology Acquisition and Promotion (NOTAP) is one of the parastatals under the Federal Ministry of Science and Technology and is made responsible for promotion of locally generated technologies, intellectual property and development of creative and inventive skills among Nigerian scientists, researchers, inventors and innovators. NOTAP is comprised of three technical department and one service department: 1) technology transfer and agreement, 2) technology acquisition and research (TAR), 3) technology promotion and commercialization, and 4) human resources and finance. Of these, TAR Department is related to the automotive industry development, especially promotion of incorporating local auto parts into assembling in the country. The department may play an important role for protection of R&D results by the acquisition of intellectual property rights, development of prototypes of products, negotiating licensing agreements and monitoring the implementation of same and so on.

2.8 Cooperation among Government, Industry and Academia

According to the information of NAC, no joint-research between the federal government, industry and academia is currently carried out. However, NAC is working with universities to provide certification programmes on automobiles stated in Subsection 2.2.2.

On the other hand, public private partnership is one of the cooperative activities between the government and private sector. The Vision 20:2020 states the following in the part of cluster development.

> *This Industrial Development strategy will focus on the development of both the manufacturing and processing industries. It will promote through Private Public Partnership, efficient and intensive mechanisms for the processing and manufacturing of selected export materials.*
>
> *Establishing clusters is a capital intensive venture and the major role of government would be addressing the large infrastructural deficit and investing heavily in relevant transportation networks and infrastructure for the manufacturing and processing industry.*
>
> *The government should pursue Public Private Partnerships (PPP) and attract private sector investment by offering low interest, long term funding or specially targeted funds. The government considers that PPP is*

The automotive cluster development follows this strategy. Therefore, the automotive supplier parks are expected to be developed through PPP.

3. Economic Situation in Lagos Area

3.1 Socio-economic Situation in Nigeria

3.1.1 Overview

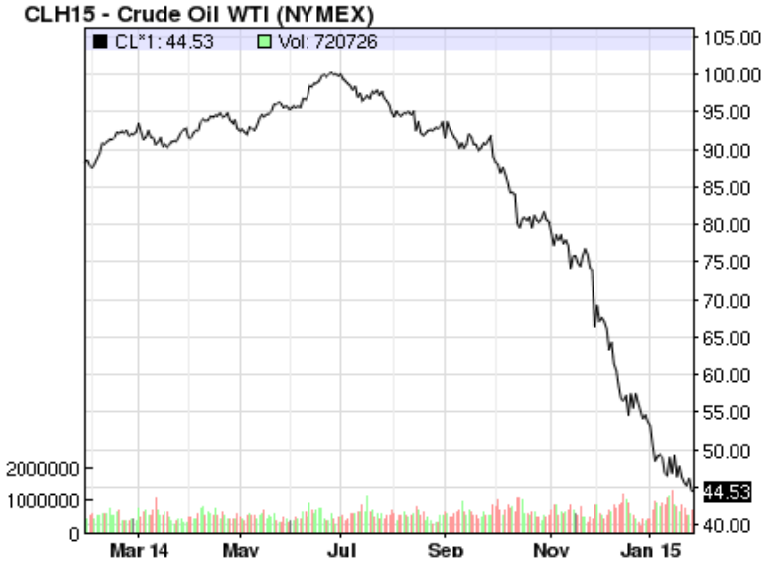
Nigeria ranks the first in terms of the size of GDP at US$ 515 billion (notional) and population at 173.6 million in Africa as of 2013. Nigeria shows sustained growth of GDP with steady increase of per capita GNI. As shown in Table 3.1-1, the manufacturing sector still shares only small portion of GDP. The fall of oil revenue due to recent drop of oil prices is a major concern of the federal government that consequently runs a higher deficit and high inflation rate putting the Nigerian Naira under more pressure (see Figure 3.1-1 and Figure 3.1-2).

As the oil and gas sector accounts for more than 70% of government revenues and 90% of foreign exchange earnings in Nigeria, the decline in crude oil prices has a direct blow on the government finances and a negative effect on the economy. The economy is expected to slow down further as the 2015 budget expenditure is reduced by 8% and the monetary policy rate was raised to a record high of 13% in November 2013 to prevent further drop of Nigerian Naira. Such negative factors in the economy have begun to affect foreign companies' investment in auto industry as the domestic consumption is expected to slow and the rise of production cost due to drop of Nigerian Naira will reduce the business profits.

Table 3.1-1 GDP, Annual Growth and Ratio by Sector

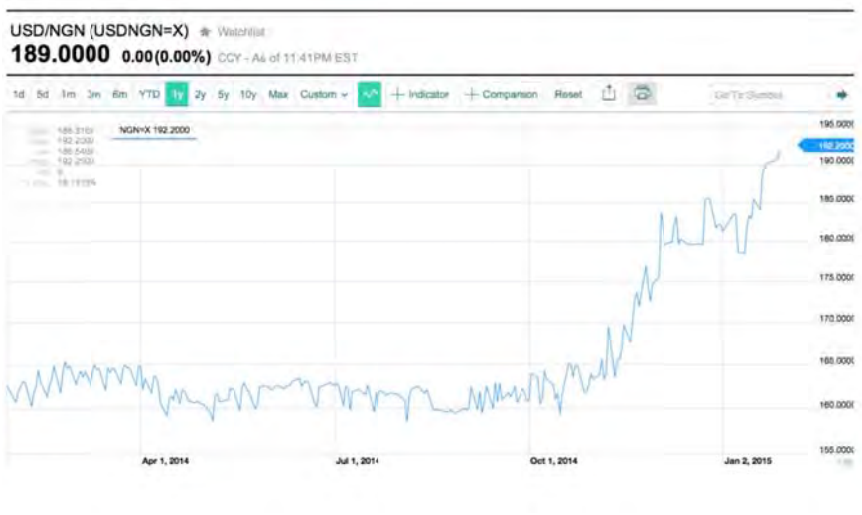
Year	2010[a]	2011[a]	2012[a]	2013[a]	2014[b]	2015[c]
GDP (US$, billion, Notional)	369.1	414.1	461.0	515.0	588.9	619.0
GNI per capita PPP (current US$)	4,740	4,930	5,130	5,360	-	-
Real GDP Growth (%)	7.8[b]	4.9	4.3	5.4	6.2	5.8
GDP Growth by Sector (%)						
Agriculture	5.8[b]	2.9	6.7	2.9	4.1	3.5
Industry	6.3[b]	8.4	2.4	2.2	4.6	3.8
Services	11.6[b]	4.9	4.0	8.4	8.0	7.8
GDP Sector Ratio (%)						
Agriculture [d]	23.9	22.3	22.1	21.0	n.a.	n.a.
Industry [d]	22.0	24.8	23.7	22.0	n.a.	n.a.
Services [d]	54.1	52.9	54.3	57.0	n.a.	n.a.
CPI (annual %)	13.7	10.8	12.2	8.5	-	-
Budget Balance (annual %)	-2.0	-1.8	-1.4	-1.8	-	-
Current account balance % of GDP	4.0	3.7	1.9	2.0	-	-

Note:
a: Actual
b: Economist Intelligence Unit estimates
c: Economist Intelligence Unit forecasts
d: World Bank (World Development Indicators)
Source: Compiled by the Survey Team from the data of EIU and the World Bank



Source: NASDAQ

Figure 3.1-1 Crude Oil Price Crude Oil WTI (NYMEX) (Mar. 2014 – Jan. 2015)



Source: Compiled by the Survey Team based on Yahoo Finance Chart Mode

Figure 3.1-2 Nigerian Naira against US Dollar (Jan. 2014 – Jan. 2015)

3.1.2 Current Situation of Middle Class

Nigeria has a growing middle class (daily per capita expenditure : Lower-Middle US$ 4 - 10 and Upper-Middle US$ 10 - 20) accounting for around 15 million population according to AfDB report, as shown in Table 3.1-2 (Source: AfDB, "Middle of the Pyramid: Dynamics of the Middle Class in Africa 2011"). A new middle class has emerged along with expansion of private sectors, such as banking, telecommunications and services industries in urban areas, particularly Lagos. This vast size of Nigeria's middle class ranks second to Egypt in the African continent and it will boost the economy in the future; moreover growing market size for the middle class will create huge business opportunities for foreign investors, including automotive companies.

Table 3.1-2 Population of Middle Class in Africa

Country	Population (million)		
	Lower Middle Class	Upper Middle Class	Total Middle Class
Nigeria	9.3	5.7	15.0
South Africa	7.0	2.8	9.8
Egypt	16.8	9.0	25.8
Kenya	5.9	0.6	6.5
Tanzania	0.6	0.6	1.2
Côte d'Ivoire	2.4	1.5	3.9

Source: AfDB, "Middle of the Pyramid: Dynamics of the Middle Class in Africa 2011"

3.1.3 Manufacturing Sector

According to the summary report on the Nigerian Manufacturing Sector, food beverages and tobacco is by far the greatest contributor and accounts for 52.7 percent of the total output, followed by textiles apparel and footwear (18 percent), cement (6.2 percent) and oil refining (5.7 percent) in 2013.

Table 3.1-3 shows the total employment by economic activity in Nigeria from 2005 to 2009. The number of people employed in most of the economic activities is gradually increasing year by year except for manufacturing industries and production and distribution of electricity and water. Those industries decreased the numbers of employment by 20 percent from 2005 to 2009.

Table 3.1-3 Employment by Economic Activity (2005-2009)

(Unit: Number)

Description	2005	2006	2007	2008	2009
Agricultural Hunting Forestry andFishing	28,633,653	28,936,534	29,049,058	29,484,557	29,664,365
Mining and Quarrying	69,001	72,962	81,045	81,002	81,705
Manufacturing industries	907,877	859,990	821,256	799,215	735,345
Production and Distribution of Electricity and Water	426,642	451,132	389,016	367,207	343,161
Building and Construction	273,049	288,723	329,583	356,407	359,502
Commercial Repairs of Auto and Domestic Art	103,847	109,808	140,478	151,203	152,516
Hotels & Restaurants	96,370	101,901	129,672	145,803	163,410
Transport, Storage and Communication	415,988	439,866	807,615	885,617	904,202
Finance Intermediation (include insurance)	280,948	297,074	302,568	307,806	310,479
Real Estate, Renting and Business Activities	60,182	63,636	81,045	97,202	108,940
Public Administration Defence and Community Social Services	5,067,423	5,158,298	5,338,164	5,572,905	5,588,623
Education	9,473,306	10,017,082	10,443,999	11,955,826	12,217,622
Health and Social Work	296,375	313,387	307,971	329,406	332,267
Others	2,998,702	3,170,830	3,279,621	3,466,866	3,507,868
Total Working Population	49,103,363	50,281,223	51,501,091	54,001,022	54,470,005

Source: Annual Abstract of Statistics 2012, National Bureau of Statistics

Table 3.1-4 shows the electricity generation and installed capacity in 2012. Total installed capacity at Power Holding Company of Nigeria (PHCN) power stations, the independent power producers (IPP) and the national integrated power projects (NIPP) was 9,955.40 MW in 2012. The actual contribution to grid generation was 5,516.38 MW and accounted for 55 percent of the total installed capacity. According to the TCN's annual technical report, the system generation is plagued by constraints such as inadequacy of gas supply, seasonal impacts on hydro power generation, difficulty in maintenance due to dearth of spares and low machine availability due to impact of ageing.

Table 3.1-4 Electricity Generation and Installed Capacity in 2012

	PHCN	IPP	NIPP	Total
Installed capacity (MW)	6,313.40	2,017.00	1,625.00	9,955.40
Contribution to grid generation (MW)	n.a.	n.a.	n.a.	5,516.38
Energy generated (GWh)	17,804.58	9,381.10	2,387.10	29,572.78

Note: n.a. - not available

Source: TCN, "Generation and Transmission Grid Operation 2012 Annual Technical Report"

3.2 Economy in Lagos Area

Lagos State is located on the south-western part of Nigeria on the narrow coastal plain of the Bight of Benin. Lagos is the most populous city in Nigeria with population of 20.1 million in 2012 (projected by the Lagos Bureau of Statistics) with annual growth rate of 3.2 percent. The land area of Lagos State accounts for only 0.4 percent of the country, while more than 10 percent of total population live in the state (see Table 3.2-1). Nigeria's business activities are concentrated in this state as more than 2,000 manufacturing industries and over 200 financial institutions are located (based on the information of Lagos State Government) and the business districts of Lagos Island remain the commercial, financial and business centre of the country. More than half of Nigeria's industrial capacity is located in Lagos' mainland suburbs, particularly in the Ikeja industrial estate. A wide range of manufactured goods are produced in the city, including machinery, motor vehicles, electronic equipment, chemicals, beer, processed food and textiles.

Table 3.2-1 Population and Land Mass (2012)

Indicator	Lagos	Nigeria	Ratio of Lagos
Population*	20.1 million	164.7 million	12.5%
Land Mass	3,577 km^2	909,890 km^2	0.4%

Note: Projection with annual growth rate of 3.2 percent

Source: National Bureau of Statistics and Lagos Bureau of Statistics

Heavy traffic jams and inadequate supply of housing are major problems in Lagos due to the high influx of people into the state. The limitation of available land poses a great challenge for commerce and industry. Table 3.2-2 shows the total actual capital and recurrent expenditures for local governments in Lagos State from 2007 to 2011. Both capital and recurrent expenditures were more in 2009 and 2010 than in other years.

Table 3.2-2 Actual Capital and Recurrent Expenditures of Local Governments in Lagos State (2007-2011)

(Unit: million NGN)

	2007	2008	2009	2010	2011
Actual capital expenditure	3,681	3,189	26,746	17,919	5,662
Recurrent expenditure	12,080	11,066	23,021	27,312	19,294
Total	15,761	14,255	49,767	45,231	24,956

Source: Lagos Bureau of Statistics

Table 3.2-3 shows the number of vehicle registrations, car dealers and auto spare parts dealers. New registration in Lagos State was about 300,000 in 2012 and accounts for 30 percent of total registration. The number of car dealers is increasing year by year, while the number of auto parts dealers decreased in 2012 compared to the number in 2010.

Table 3.2-3 Statistics related to Transportation (2010-2012)

		2010	2011	2012
Vehicle registration (unit)	New	229,879	259,473	293,864
	Renew	690,623	758,958	723,595
	Sub-total	920,502	1,018,431	1,017,459
Car dealers		819	944	1,002
Auto spare parts dealers		1,073	881	901

Source: Lagos Bureau of Statistics

3.3 Major Industries

The overall Lagos state GDP figures for 2010 across the sectors stood at NGN 11.3 trillion, which accounted for 33 percent of National GDP NGN 34 trillion, as released by National Bureau of Statistics. Major industrial sectors and GDP distribution for Lagos State are stated in Table 3.3-1. The manufacturing sector in Lagos is quite active compared to the national average and accounts for 32 percent. Road transport is the most commonly used for a mode of transportation and this sector is a major providing source of employment in the state, followed by building and construction.

Table 3.3-1 Seven Major Sectors Driving Lagos Economy in 2010

Sector	Lagos State		National
	Sector GDP (billion NGN)	Sector Ratio (%)	Sector Ratio (%)
Manufacturing	3,579	32	6
Road Transport	3,200	28	5
Building and Construction	2,382	21	58
Wholesale and Retail	1,015	9	6
Telecommunications	448	4	3
Financial Institutions	424	4	7
Real Estate	243	2	15
Total	11,292	100	100

Source: National Bureau of Statistics and Lagos Bureau of Statistics

3.4 Business Environment

A shortage of electricity and inefficient supply chains may increase the cost of doing business in the Lagos area. Also, doing business in Nigeria requires mind-set what consumers can pay instead of adding production cost for setting a price as most of Nigerians are poor. For example, according to the result of interview, a price of motorcycle is set at US$600 in Nigeria that can be sold at US$1,000 in Kenya, US$1,300 in Angola and US$1,600 in the Republic of South Africa. Cost of local staffs is not cheap. The labour in the rural area of Lagos is on the same level as at the factories in China but it is increasing more than 15% annually. It costs couple of times more to hire local staffs at the centre of Lagos.

According to the Doing Business provided by the World Bank Group, starting business in Lagos ranks 4 among 36 cities in Nigeria and the required procedures for starting business in Lagos are listed in Table 3.4-1.

Table 3.4-1 Procedures of Starting Business in Lagos

Procedure	Time to complete	Associated cost
Reserve a unique company name at the Corporate Affairs Commission (CAC)	5 days on average	NGN 500 application form
Prepare the requisite incorporation documents and pay the stamp duty	7 days	- 0.75% stamp duty paid on share capital - NGN 500 for each additional copy of Memorandum and Articles of Association stamped (2 copies)
Sign the declaration of compliance before a Commissioner for Oaths or Notary Public	1 day	NGN 500 at the court or NGN 4,000 - NGN 5,000 with a Notary Public
Register at CAC and pay the fees at the bank desk of CAC	11 days on average	NGN 89,000 - NGN 60,000 for legal fees - NGN 20,000 for registration fees)NGN 10,000 for company whose nominal share capital is NGN 1,000,000 or less + NGN 5,000 for all subsequent million) - NGN 3,000 for certified true copy of memorandum and articles of association - NGN 2,000 for certified true copy of particulars of directors - NGN 2,000 for certified true copy of particulars of shareholders - NGN 2,000 for certified true copy of particulars of the company secretary
Make a company seal	1 day	NGN 4,000
Register for income tax and VAT at the Federal Inland Revenue Service	4 days	No charge
Register for personal income tax at the State Tax Office	2 days	No charge
Register business premises with the Lagos State Government and pay the business premises levy at a designated bank	1 day	NGN 10,000 paid at the beginning of first year; NGN 5,000 in subsequent years

Source: World Bank Group, Doing Business

3.5 Foreign Investment

3.5.1 Business Activities by Foreign Companies

Major activities by foreign companies in major industries in Nigeria are stated in Table 3.5-1. Some foreign companies are in a leading position of the industry and good business opportunities are revealed in the new market sector of the industries.

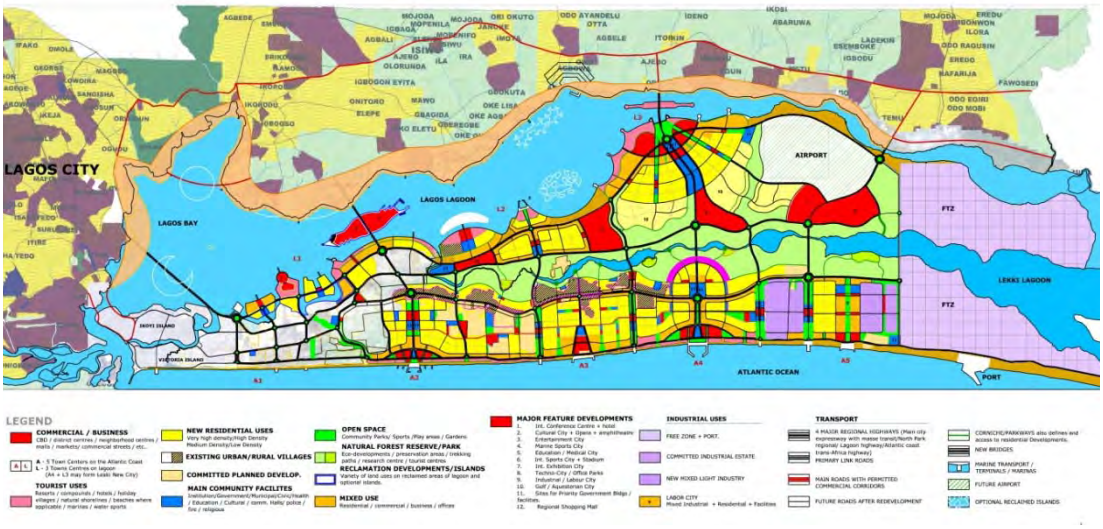
Table 3.5-1 Major Activities by Foreign Companies

Company	Industry	Activity
MTN (South Africa)	Telecommunication	Holding 50% in market share
Diageo (UK)	Food	Introduced New Guinness bottle. *Creamy Stout* is sold more in Nigeria than in Ireland
Multi-Pro Enterprises (Singapore)	Food	Created instant noodle market *Indomie* holds more than 70% in market share
LG (South Korea)	Electronics	Air-Conditioner that matches local specific demand
Indorama (India)	Chemical	Plans to build a U$$1.2 billion fertilizer plant
GE (USA)	Heavy industry	Plans to build assembly plant for electric power related products in Cross River state

Source: JETRO

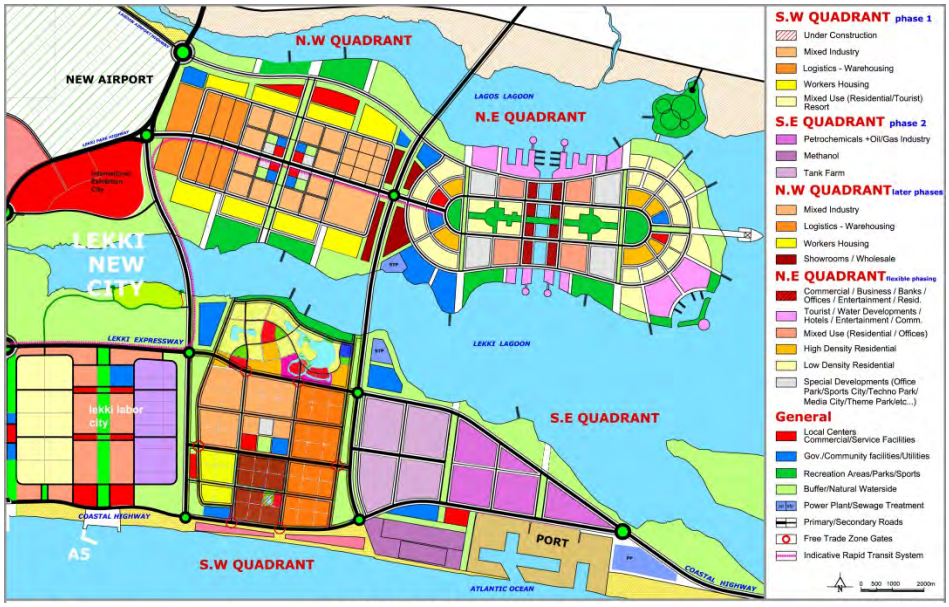
3.5.2 Lekki Free Trade Zone

The Lekki Free Trade Zone (FTZ) was established in April 2006 as a Joint Venture between the Lagos State Government and Lekki Worldwide Investments Limited and registered in NEPZA. The Lekki FTZ has land area of approximately 17,500 hectares. The Lekki FTZ will be divided into four main quadrants. Based on the proposed land use plan, these are: South West Quadrant (SW), South East Quadrant (SE), North West Quadrant (NW) and North East Quadrant (NE). Figure 3.5-1 and Figure 3.5-2 show the land use plan in the Lekki Peninsula and FTZ.



Source: Lekki Free Trade Zone, Land Use and Infrastructure Master Plan

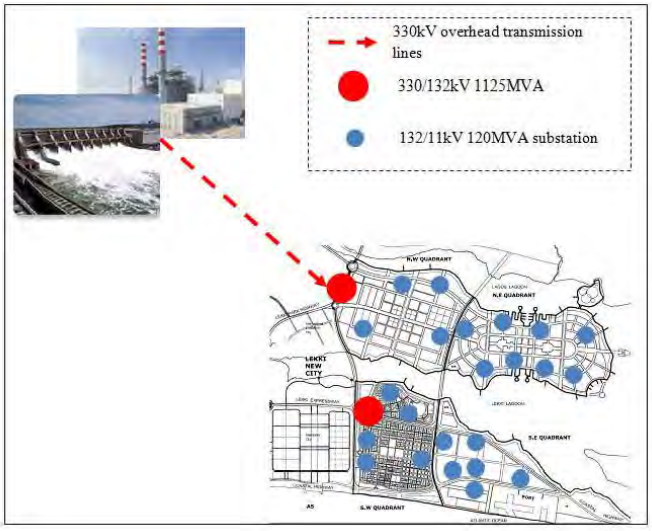
Figure 3.5-1 Land Use Plan of Lekki Peninsula



Source: Lekki Free Trade Zone, Land Use and Infrastructure Master Plan

Figure 3.5-2 Land Use Plan of Lekki FTZ

According to the Land Use and Infrastructure Master Plan of the Lekki FTZ, it is noted that the power local authority will have to build new generating plants or upgrade existing ones, to cater for the additional power demand of Lekki FTZ development. Figure 3.5-3 shows the suggestion on the power distribution to the Lekki FTZ based on the projected load in the zone.



Source: Lekki Free Trade Zone, Land Use and Infrastructure Master Plan

Figure 3.5-3 Power Distribution Diagram suggested in the FTZ Master Plan

4. Demand Outlook

4.1 Automobile Sales

4.1.1 Trend of Automobile Sales

For most Nigerians, vehicles mean used cars. These used cars are sold cheaply in low quality. These used cars are often sold at less than NGN 500,000. Also, big-sized cars are preferred as such cars are considered safer than compact economical cars against traffic accidents in Nigeria. Customers of new cars are quite different from those who buy the used cars. An imported new passenger vehicle costs more than NGN 3 million, and in most cases, above NGN 5 million. Therefore, corporate clients are the major buyers of new cars, and in case of individual customers, they are very rich, leading different life from the middle class of Nigeria.

Sales figures in Nigerian automotive market are hard to get as comprehensive sale figures in auto industry are not statistically recorded in any public and private institution. It is not possible to state the correct figure without reliable data. According to OICA, figures for sales of new vehicles and vehicles in use are estimated as shown in Table 4.1-1. However, there is no figure on the unit number of used cars for sales and in use. According to the figures shown in the table, the number of sales and in use is increasing year by year.

Table 4.1-1 Vehicle Sales and in Use

	2010	2011	2012	2013	Average Annual Increase
Sales of new vehicles (unit)					
Passenger car	25,000	30,000	40,000	40,000	18%
Commercial vehicle	12,000	15,000	10,000	12,000	4%
Total	37,000	45,000	50,000	52,000	12%
Vehicles in Use (in 1,000 units)					
Passenger car	2,400	2,500	2,600	n.a.	4.1%
Commercial vehicle	690	710	730	n.a.	2.9%
Total	3,090	3,210	3,330	n.a.	3.8%
Percentage of new passenger car sales in increase in vehicles in use	22%	30%	40%	-	-

Source: Compiled by the Survey Team based on the statistics of OICA

The number of number plates issued by FRSC is also one of the records that might contribute to estimation of automotive market in Nigeria. Table 4.1-2 shows the issuance of motor vehicle number plates by state. Average annual number exceeds 10,000 units in the states highlighted with yellow, while the number is more than 200,000 in Lagos State. The average annual number in the states located in the three clusters, Kano-Kaduna, Enugu-Anambra, Lagos-Ogun-Oyo-Osun, exceeds 10,000 units except Osun State. Figure 4.1-1 shows the trend of number plate issuance in the three clusters. In Kano, Anambra and Ogun, the issuance increased sharply after 2011.

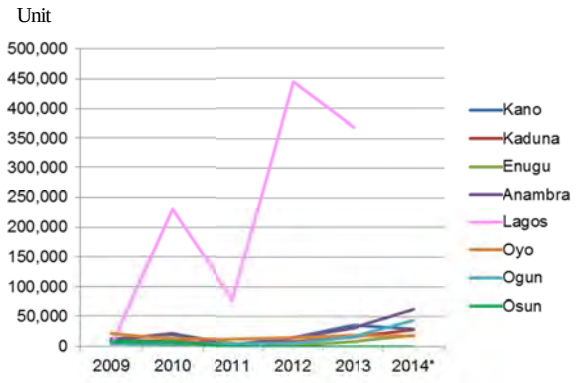
Table 4.1-2 Issuance of Vehicle Number Plates by State

	2009	2010	2011	2012	2013	2014*
Abia	7,561	6,744	2,017	4,245	14,541	36,162
Adamawa	4,803	13,547	1,742	6,300	13,345	13,087
Akwa Ibom	12,098	24,578	254	10,624	6,721	30,289
Anambra	11,849	21,457	768	15,817	31,077	63,641
Bauchi	3,987	10,009	2,706	2,124	13,308	9,256
Bayelsa	4,762	4,314	827	909	9,396	10,650
Benue	6,892	4,966	1,029	11,453	12,168	8,532
Borno	4,301	9,584	3,985	5,499	9,876	3,954
Cross River	4,123	7,957	218	3,316	11,284	22,927
Delta	14,565	13,598	890	15,104	32,491	33,070
Ebonyi	2,495	6,786	427	3,949	8,400	12,356
Edo	19,013	19,982	12,209	23,972	37,671	30,563
Ekiti	8,895	2,698	2,230	160	451	17,747
Enugu	11,271	20,119	5,758	1,670	8,999	19,372
FCT	55,637	41,325	31,297	41,414	106,140	110,374
Gombe	5,619	6,442	2,697	3,057	6,075	18,746
Imo	9,322	7,923	2,824	6,186	6,441	22,966
Jigawa	8,137	8,399	2,829	4,335	11,088	9,342
Kaduna	9,618	8,176	3,152	9,232	16,658	29,209
Kano	13,254	19,584	3,468	14,750	37,160	30,354
Katsina	6,442	8,922	3,037	4,651	30,748	8,078
Kebbi	6,916	1,614	1,675	5,199	9,306	10,166
Kogi	4,421	3,899	1,980	3,887	6,208	12,878
Kwara	12,457	8,762	5,880	11,493	10,128	17,270
Lagos	1,343	230,940	77,010	444,500	369,071	1
Nasarawa	5,207	7,668	2,940	6,022	7,704	28,015
Niger	8,856	8,333	3,471	1,446	200	15,076
Ogun	4,464	4,070	4,477	6,408	16,165	44,440
Ondo	6,362	9,854	4,337	9,203	78,445	25,239
Osun	7,425	6,936	107	13	8	0
Oyo	21,457	13,363	12,120	14,719	18,891	18,469
Plateau	6,427	8,600	1,147	5,383	19,113	13,660
Rivers	10,457	20,589	6,703	18,093	6,662	47,870
Sokoto	2,353	5,808	1,410	3,719	10,002	13,077
Taraba	1,638	1,348	688	1,997	2,322	12,401
Yobe	3,724	2,176	1,431	2,275	3,410	2,082
Zamfara	2,911	1,820	777	611	9,897	4,573
Federal Gov.	71	116	9	4,908	9,897	7,420
Para/mlitry	4,060	5,975	1,771	673	799	623
Doplomatic	1,500	7,908	4,574	930	2,239	748
Total	336,693	616,889	216,871	730,246	1,004,505	814,683

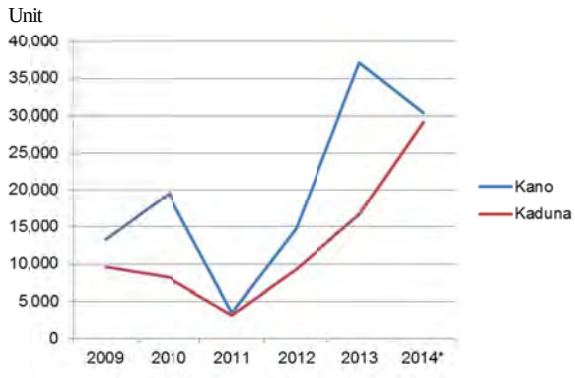
Note: 1) Highlighted parts in yellow – average annual registration exceeds 10,000 units.
2) The figures in 2014 are registration between January and September in 2014.

Source: FRSC

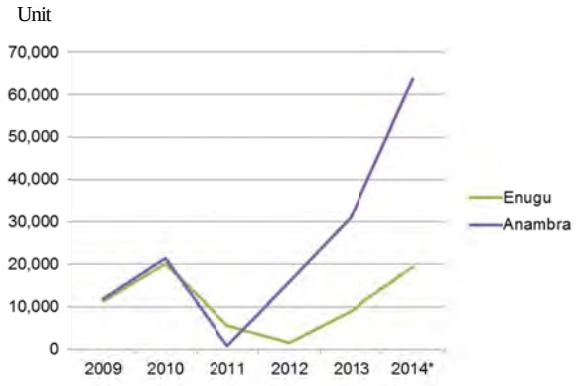
a) Three Clusters



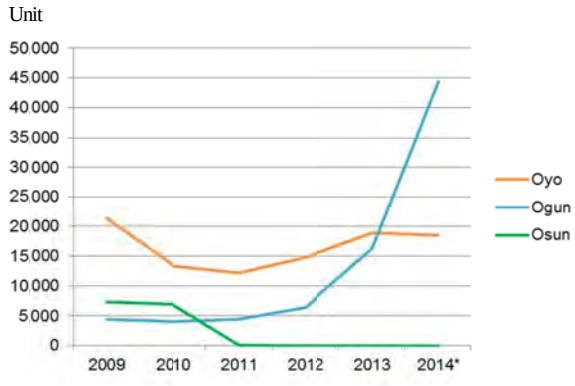
b) Kano-Kaduna Area



c) Enugu-Anambra Area



d) Lagos Area



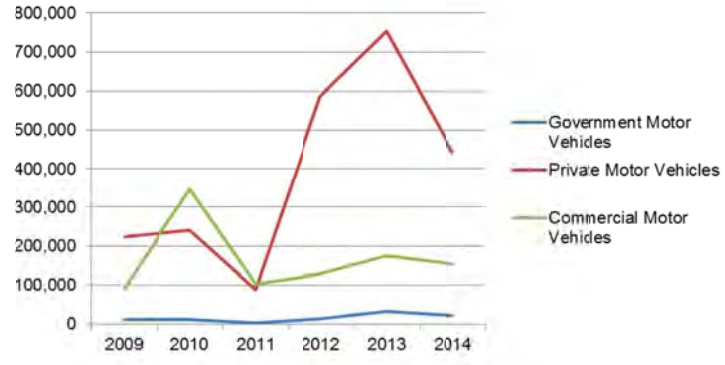
Note: The figures in 2014 are registration between January and September in 2014.

Source: Compiled from FRSC's statistics

Figure 4.1-1 Trend of Number Plate Issuance in the Three Clusters

Figure 4.1-2 shows the issuance number by plate type: government motor vehicles, private motor vehicles and commercial motor vehicles. The plate number issuance for the private motor vehicles drastically increased after 2011, while that for the commercial ones is less than 200,000. According to the NAC's information, those figures include both new registration and renewal of existing ones after 2013, but the demand for the private passenger cars was stable. It can be inferred that the market of affordable cars such as used ones with low prices expanded during the period. However, Nigeria might experience a downturn in the new vehicle market especially in 2015 because of the following factors:

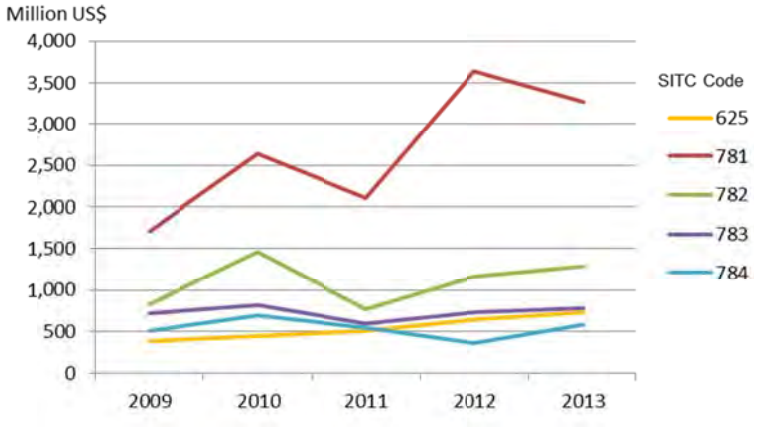
- Low crude oil price (reducing the governmental revenue)
- Weak Naira (increase in consumer prices)
- Higher new car price due to fiscal measures



Source: Compiled from FRSC's statistics

Figure 4.1-2 Trend of Number Plate Issuance by Plate Type

The UNCTAD's trade statistics can be used to crosscheck the appropriateness of the registration number. Figure 4.1-3 shows the imports of automobiles and auto spare parts by Standard International Trade Classification (SITC) code in terms of monetary amount from 2009 to 2013. The import trend shown in the figure is the same as the trend of number plate issuance.



Notes:
625: Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds
781: Motor cars and other motor vehicles principally designed for the transport of persons (other than motor vehicles for the transport of ten or more persons, including the driver), including station-wagons and racing cars
782: Motor vehicles for the transport of goods and special-purpose motor vehicles
783: Road motor vehicles, n.e.s.
784: Parts & accessories of vehicles of 722, 781, 782, 783

Source: Compiled from UNCTAD's statistics

Figure 4.1-3 Trend of Automobiles and Auto Spare Parts (2009 – 2013)

As shown in Figure 4.1-1, the biggest market in Nigeria is Lagos. Table 4.1-3 shows the summary of vehicle registration in Lagos State from 2002 to 2011. As for the registration number in Lagos State, there is no consistency between the figures of number plate issuance for FRSC and vehicles registration for Lagos Bureau of Statistics, however, the number of new registrations reached 250,000 units in 2011.

Table 4.1-3 Vehicle Registration in Lagos State (2002-2011)

	New Registration			Renewal			Total
	Motor Vehicles	Motor Cycles	Sub-Total	Motor Vehicles	Motor Cycles	Sub-Total	
2002	150,620	33,452	184,072	153,624	3,331	156,955	341,027
2003	111,833	31,776	143,609	112,441	5,843	118,284	261,893
2004	67,376	11,549	78,925	158,694	2,519	161,213	240,138
2005	81,078	8,022	89,100	181,456	4,539	185,995	275,095
2006	141,265	11,846	153,111	205,927	6,461	212,388	365,499
2007	187,442	18,906	206,348	438,649	12,356	451,005	657,353
2008	239,922	42,754	282,676	497,657	14,810	512,467	795,143
2009	210,798	80,414	291,212	577,638	16,762	594,400	885,612
2010	240,963	84,666	325,629	695,641	20,481	716,122	1,041,751
2011	259,473	73,411	332,884	758,958	22,587	781,545	1,114,429

Source: Lagos Bureau of Statistics

4.1.2 Demand Outlook

It can be said that the demand for vehicle purchase in the three clusters is high and the trend will continue. However, Nigeria could experience a downturn in the new automobile market for several years due to the following factors:

- ✓ Weak Naira will raise the consumer price index.
- ✓ Weak Naira and low crude oil price will reduce the foreign currency reserve of the country.
- ✓ Fiscal measures under NAIDP will raise selling prices of new vehicles.
- ✓ Vehicle prices will increase, but affordable vehicles and financial instruments with low interest rate are not available at the moment.
- ✓ Low domestic demand for new vehicles will affect the operation level of the OEM plants.

4.2 Production by OEM Plants

4.2.1 Existing Capacity

Table 4.2-1 shows the production capacities of automotive manufacturers in 2013 and produced unit numbers in 2007, 2008 and 2009. The situation did not become better in 2014 because Leyland-Busan Ltd. produced only 190 busses in the year.

According to the information about production capacity, the automotive industry has installed capacity to produce 108,000 passenger cars (PAN and VON) and 50,000 commercial vehicles annually. Capacity utilisation of the vehicle manufactures is below 10 percent and about 40 percent in motorcycle, bicycle and components parts manufacturing.

Table 4.2-1 Production Capacity of Automotive Manufacturers and Actual Production Volume

No.	Plant	Location	Product (s)	Production Capacity(annual)*		Production Volume		
				NAC	RMRDC	2007	2008	2009
1	ANAMMCO	Enugu	Trucks and Buses	5,000	7,500	-	286	432
2	GM Nig Ltd	Lagos	Trucks and Buses	5,000	7,500	67	264	276
3	Innoson Vehicle Mfg. co	Nnewi	Trucks and Buses	10,000	10,000	-	-	-
4	Iron Products Industry	Lagos	Buses, Trucks, Tanker bodies	400	n.a.	n.a.	n.a.	n.a.
5	Leventis Motors Ltd.	Ibadan	Trucks and Buses	5,000	6,516	-	-	-
6	Leyland-Busan Ltd.	Ibadan	Trucks and Buses	5,000	1,200	-	250	1,600
7	NTM Nig Ltd.	Kano	Trucks and Buses	5,000	7,500	-	500	600
8	PAN Nig Ltd.**	Kaduna	Cars	25,000	63,000	-	3,250	5,000
9	Proforce Ltd.	-	Armoured Vans, Jeeps	420	n.a.	n.a.	n.a.	n.a.
10	Steyr Nig Ltd.	Bauchi	Trucks and Buses	5,000	8,000	-	1,253	91
11	VON Nig Ltd.	Lagos	Cars	39,000	45,000	-	-	-
12	Zahan Auto Co Nig Ltd.	Lagos	Pick-ups	5,000	n.a.	n.a.	n.a.	n.a.
Total			Cars	64,000	108,000	-	3,250	5,000
			Pick-ups	5,000	n.a.	n.a.	n.a.	n.a.
			Trucks and Buses	40,400	48,216	67	2,553	2,999
			Others	420	n.a.	n.a.	n.a.	n.a.

Note: * Left side capacity figures are from NAC and right side figures are from the RMRDC's report.
** PAN's capacity: 63,000 until 2005, 25,000 from 2006
Source: Compiled by the Survey Team from data of NAC and RMRDC

There are no specific figures of OEM plants and auto parts other than the industrial studies report by RMRDC. According to the results of interview survey with the local assemblers and auto parts manufacturers, their business activities are still at very low level due to influx of imported vehicles with a lower price and low demand of local assemblers.

However, the Summary Report on the Nigerian Manufacturing Sector prepared by the National Bureau of Statistics describes that output of motor vehicles is decreasing drastically as shown in Table 4.2-2, while the spare parts, vehicle bodies, motor cycles and spare parts production is increasing year by year. Spare parts demand is related to total volume of cars in use in the country. As shown in Table 4.1-2, the number of vehicle number plate issuance is increasing year by year. Those figures show that the Nigerian car demand is increasing sharply in recent years. But most of the demand is fulfilled by the imported cars because the operation of car manufacturers in Nigeria is still at very low level and cannot meet the demands in terms of the production number and prices.

Table 4.2-2 Output by Product in the Motor Vehicle and Assembly Sector

Unit: (thousand NGN)

	2010	2011	2012
Motor vehicle	16,426,440	14,802,115	720,133
Spare parts	15,390	16,975	44,576
Vehicle body	1,820,480	5,232,720	13,067,719
Motor Cycle	7,120,853	12,051,265	30,092,231
Spare parts	25,738,800	32,783,650	45,003,390

Source: National Bureau of Statistics

4.2.2 Future Expansion

The Nigerian population has increased from 68.45 million in 1980 to 173.94 million in 2014, and is projected to be 199 million in 2019 (Source: IMF, World Economic Outlook (WEO) data). According to the Euromonitor International 2011, the Nigerian middle income population will increase from 2 million in 1990 to 51 million in 2020. According to the International Organization of Scientific Research (IOSR) Journal of Research & Method in Education, PAN had produced maximum 264 cars per day in 1980s. This is equivalent to 50,000 cars per year. According to NAC, VON had produced maximum 20,000 cars per year in 1980s. This means that there were 70,000 production volumes per year in total for two major manufacturers. To revive this capacity of production lines, those manufacturers need to introduce new production lines or adjust existing lines to ones that can manufacture the newest products. In such case, the production lines can be designed with any capacity to meet the latest demand forecast or target. In addition to the volumes, some new OEMs are also going to start the production after the announcement of NAIDP. If the new auto policy influences the new car market successfully, the market can expect higher volume such as 100,000 cars in 2020.

4.3 Auto Parts Production

4.3.1 Existing Capacity

According to the RMRDC's industrial studies report, some automobile component manufacturers answered their production capacity. Table 4.3-1 shows the survey result.

Table 4.3-1 Capacity and Production of Auto Parts Manufacturers

No.	Company	Location	Products	Production Capacity (annual)	Production in 2002
1	Nigerian Engineering Works Ltd.	Port-Harcourt	Cross Members	40,000 pcs	6,000 pcs
			Floor Stiffeners	40,000 pcs	
			Spare Wheel-cradle	40,000 pcs	
			A/C Evaporator	40,000 pcs	
2	T.S.G. Nig. Ltd.	Ibadan	Windscreen	Not Indicated	Not Indicated
3	Isoglass Ind. Ltd.	Ibadan	Windscreen	150,000 pcs	45,000 pcs
4	Pacific Technical Service	Uyo	Gears	400 pcs	Not Indicated
			Propeller Shaft	400 pcs	
			Engine Sleeves	500 pcs	
			Brake Disk	30 pcs	
			Gear Shaft	30 pcs	
5	Universal Rubber Company Ltd.	Ibadan	Foot Mat	10,000 pcs	500 pcs
			Shaft Rubber Cross	25,000 pcs	13,180 pcs
			Member Shim	20,000 pcs	14,561 pcs
			Ant Roller Booster	32,000 pcs	7,864 pcs
			Pedal Pad	18,000 pcs	8,071 pcs
			Elastic Pad	18,000 pcs	7,895 pcs
			Brake Booster Seal	18,000 pcs	9,332 pcs
			Suspension Rubber Washer	15,000 pcs	6,899 pcs
6	Auto Components Ltd.	Ota	Petrol Filters	450,000 pcs	30,000 pcs
			Al die cast components	50,000 pcs	35,000 pcs
7	Earth Resources Industrial Coy	Ibadan	Grease	50,000 kg	2,000 kg
8	Union Auto Parts Mfg. Co. Ltd.	Nnewi	Battery	240,000 pcs	200,000 pcs
			Brake Pad	800,000 pcs	534,645 pcs
			Brake Lining	800,000 pcs	534,319 pcs
			Auto Accessories	350,00 pcs	200,000 pcs
9	OCE Filter Mfg. Ind. Ltd.	Nnewi	Automotive Filters	Not Indicated	40,000 pcs
			Exhaust System		20,000 pcs
			Wheel Cover		8,000 pcs
10	A-Z Petroleum Products Ltd.	Nnewi	Engine Oil	Not Indicated	Not Indicated
			Gear Oil		
			Hydraulic Oil		
			Grease		
11	Godwin Kris Ind. Ltd.	Nnewi	Motorcycle Tubes	1.8 million pcs	0.8 million pcs
			Stabilizer rubbers	2.8 million pcs	0.16 million pcs
			Steering Hoses	52,174 pcs	28,116 pcs
			Rubber Bushes	126,416 pcs	126,416 pcs
12	John White Ind. Ltd.	Nnewi	Fan Belt	200,000 pcs	70,000 pcs
			Foot/Car floor mats	Not Indicated	10,000 pcs
13	Ferdinand Industries	Umuagu Village	Oil Filters	450,575 pcs	90,115 pcs
14	Onwuka Hi-tek Industries Plc.	Aba	Shock Absorber Plates	15,000 pcs	Not Indicated
			Battery Tie rod	7,000 pcs	
			Belt tension slide	7,000 pcs	
15	Chiemie Motors (Nig) Ltd.	Aba	Front Grill	30,000 pcs	11,000 pcs
			Fan Brade	20,000 pcs	14,000 pcs
			A/C Housing	35,000 pcs	17,000 pcs
			Fancy W/Cover	95,000 pcs	31,000 pcs
			Fuel Filter	100,000 pcs	22,000 pcs
			Inner View Mirror	25,000 pcs	7,000 pcs
			Monograms	180,000 pcs	51,000 pcs
16	NIBELTEX Industries (Nig) Ltd.	Aba	Upholstery Fabric	Not Indicated	Not Indicated

No.	Company	Location	Products	Production Capacity (annual)	Production in 2002
17	Nocelg Fibreglass Ltd.	Aba	TS Roofing Sheet	900 kg	570 kg
			Mosque/Chrch Murals	600 kg	350 kg
			Industrials Components	2,000 kg	430 kg
18	Moudaco Ltd.	Lagos	Fiberglass Bumpers	8,840 pcs	6,740 pcs
			Fiberglass Fenders	3,120 pcs	2,080 pcs
			Boot Deflectors	1,300 pcs	780 pcs
19	Kay Plastics Nig. Ltd.	Ilorin	PVC Sheeting	2,918 MT	900 MT
20	Nasco Fiber Products Ltd.	Jos	Carpet	612,000 m^2	144,000 m^2
21	Makeri Smelting Coy.	Jos	Tin Metal	728 MT	-
			Bismuth Metal	800 MT	4 MT
			Lead Metal	800 MT	-
			Alloys	50 MT	18 MT
22	Peacock Paint Ltd.	Ikot Ekan	Decorative Paint	2.070 m Lt	1.946 m Lt
			Automotive Paint	0.908 m Lt	0.506 m Lt
			Industrial Paint	0.074 m Lt	0.037 m Lt
			Marine	0.009 m Lt	0.009 m Lt
23	Sammy Group of Company	Not indicated	Piston	3,120 pcs	1,120 pcs
			Speed Meter	460 pcs	312 pcs
			Chain Cover	60 pcs	30 pcs
			Hub	120 pcs	60 pcs
24	Chieme Motors (Nig) Ltd.	Aba	504 Front Grill	50,000 pcs	38,000 pcs
			505 Front Grill	40,000 pcs	10,000 pcs
			406 Front Grill	50,000 pcs	10,000 pcs
			2.0 Wheel Cover	60,000 pcs	38,000 pcs
			Best Line Wheel Cover	40,000 pcs	8,000 pcs
			Honda Wheel Cover	80,000 pcs	4,000 pcs
			406 Wheel Cover	30,000 pcs	8,000 pcs
			Monogram Speaker	110,000 pcs	60,000 pcs
			Grill	48,000 pcs	40,000 pcs
			Side Mirror	60,000 pcs	40,000 pcs

Source: RMRDC

Their manufacturing lines or equipment were introduced in 1970s and 1980s. They thought that they would produce automobile components by using the machinery, however, they realized that it was not so easy to resume the production. The reasons are as follows:

- Accuracy of the manufacturing lines or equipment cannot be applied to the current products.
- Technology of the manufacturing lines or equipment cannot be applied to the current products.
- The manufacturing lines or equipment is dilapidated and unable to operate stably.
- There are few engineers who have knowledge of modern automobile engineering.

In order to overcome these challenges, managements of the component manufacturers must consider the following:

- To train their engineers at training centres that provide programmes on the latest automobile technology
- To adjust the manufacturing lines or equipment to be applied to the current products
- To select the suitable components that can be produced by their own resources (manpower, equipment and money)
- Start trial production cooperating with automobile manufacturers

4.3.2 Future Expansion

Table 4.3-2 shows estimated national demand for auto parts and total requirement at full capacity utilization in the auto parts industry reported by RMRDC. There are big gaps between the demand and capacity for some items. At first, the federal government needs to show the basis of these figures and make a plan on how to meet these demands. After that, auto parts manufacturers can try to establish their manufacturing lines to meet these demands. From the viewpoint of automobile manufacturers, there are some conditions of local procurement as follows:

Parts that can be used with one component or one module

Even if one company starts production of machining parts, it is very difficult to use the parts for local components because many machining or other parts are assembled in one module, like starter or alternator, at factories in foreign countries.

Non critical parts

Automobile manufacturers do not want to use critical parts like engine, transmission, chassis and body because of the quality issue. It may take long time for auto parts suppliers to establish credibility from automotive manufacturers.

Local parts price

Local parts price is required to be cheaper than import parts price plus delivery cost. The cost issue is important point for automobile manufacturers.

To fulfil the condition, after-parts production like battery, tyre, or brake pad are good for starting up. The first step of capacity expansion must be considered for supplying parts to the aftermarket, followed by supplying to OEM plants.

Table 4.3-2 Estimated National Demand and Total Requirement at Full Capacity of Auto Parts

	Item	Estimated National Demand	Total Requirement at Full Capacity	Gap (Capacity-Demand)
1	Battery	600,000	150,000	-450,000
2	Tyre and Tube	3,000,000	750,000	-2,250,000
3	Silencer / Exhaust System	50,000	150,000	100,000
4	Filter (Fuel)	750,000	150,000	-600,000
5	Filter (Oil)	750,000	150,000	-600,000
6	Clutch	80,000	150,000	70,000
7	Shock Absorber	150,000	600,000	450,000
8	Air-conditioner	*	*	*
9	Windscreen / Grass	250,000	150,000	-100,000
10	Fuel Tank	*	150,000	*
11	Alternator	50,000	150,000	100,000
12	Radiator	150,000	150,000	0
13	Set of Harnesses	5,000	150,000	145,000
14	Spark Plug	3,000,000	600,000	-2,400,000
15	Brake Lining / Pad	500,000	800,000	300,000
16	Spare Wheel Cradle	*	60,000	*
17	Lock and Handle	*	300,000	*
18	PVC Hose / Tubing (set)	50,000	150,000	100,000
19	Paint	*	*	*
20	Additive / Sealant	*	*	*
21	Seat (set)	*	150,000	*
22	Fastener	*	*	*
23	Car Radio	*	*	*
24	Wheel Rim	*	750,000	*
25	Carpet & Underlay	*	*	*
26	Wiper Blade (set)	80,000	150,000	70,000
27	Coil / Leaf Spring	30,000	150,000	120,000
28	Bushings	50,000	150,000	100,000
29	Starter Motor	50,000	150,000	100,000
30	Brushes (set)	500,000	150,000	-350,000
31	Head Lamps (set)	100,000	150,000	50,000
32	Fuel Pump	50,000	200,000	150,000
33	Contact set	750,000	100,000	-650,000
34	Piston/Connecting rod/Sleeves (set)	200,000	600,000	400,000
35	Bulbs (Automotive)	3,000,000	2,400,000	-600,000
36	Injector Nozzles (set)	70,000	50,000	-20,000

Source: Compiled by the Survey Team from data of RMRDC

4.4 Human Resources

According to the Summary Report on the Nigerian Manufacturing Sector, it is reported that motor vehicle and assembly sector did not maintain its share in terms of worker engagement as the third largest in manufacturing sector. Total number of employees engaged in the motor vehicle and assembly sector was 290,849 workers. This accounts for 9.76 percent of total number of employees in 2012. NAC expects that NAIDP will lead to creation of job opportunities for 70,000 skilled/semi-skilled workers, 210,000 for indirect and 490,000 for related sectors. Generally, it is said that producing 100,000 units per year will generate 100,000 workers in Tier 1 and Tier 2 manufacturers. To achieve the human skills development that is one of the key components of NAIDP, training measures shown in Table 4.4-1 are required at each KD stage. Theoretical knowledge and basic skills can be given at training institutions such as universities. Specific technical knowledge needs to be

obtained at manufacturers of auto sector leading countries. More practical knowledge will be trained through OJT.

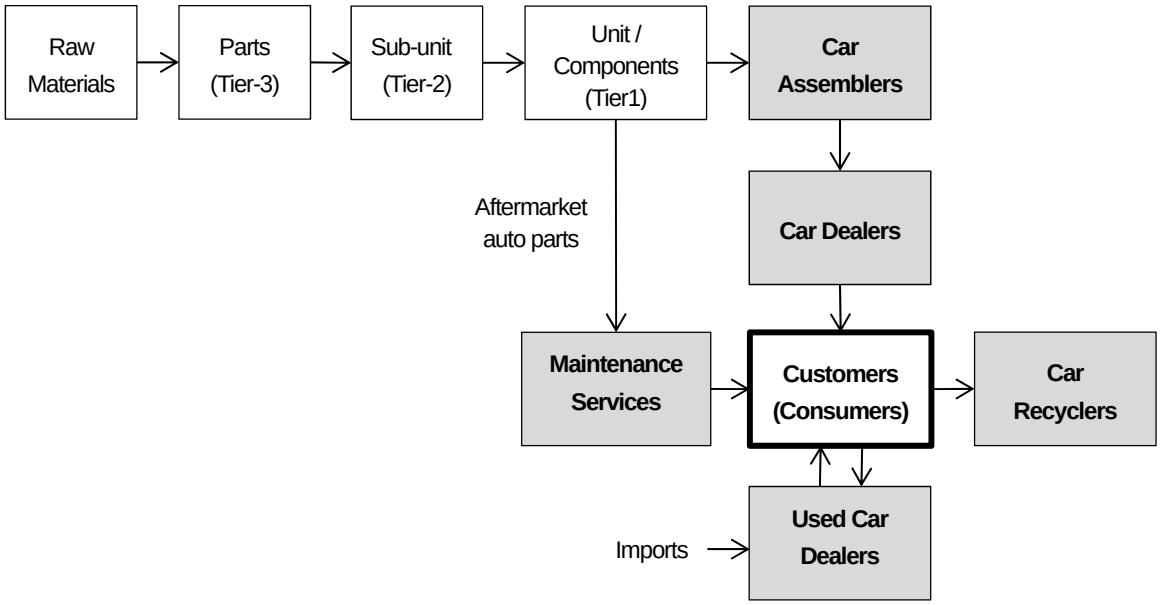
Table 4.4-1 Training Programmes for Necessary Skills

Stage	Necessary Skills or Knowledge	Training Measures
SKD2 (2015-2017)	(i) Safety (ii) Operation with various tools (iii) Basic knowledge of electronics (iv) Basic knowledge of mechanics (v) Basic knowledge of automobile (vi) Knowledge of automobile maintenance	Universities, colleges and training centres
	(vi) 5S (Sort, Set, Shine, Standardize, Sustain)	Technology transfer from countries that have developed the automotive industry
	(vii) Safety (viii) Operation with various tools	OJT
SKD1 (2017-2018)	(i) Hygiene (ii) Compliance(Contract, trademark, patent)	Universities, colleges and training centres
	(iii) KAIZEN (Improvement) (iv) Basic knowledge of Industrial Engineering (Standard time, line balance, etc.) (v) Basic knowledge of management (Production plan, quality control, inventory control) (vi) Specific skills of each technology (Machining, forming, Electronics, Mechanics)	Technology transfer from countries that have developed the automotive industry
	(vii) Operation with heavy equipment (viii) Compliance(Contract, trademark, patent)	OJT
CKD (2019-)	(i) CSR	Universities, colleges, and raining centres
	(ii) Problem solving (iii) Management system(Quality, Environment) (iv) Quality assurance (v) Supplier control (vi) Demand forecasting (vii) More specific skills for each technology (Press, grinding, forging, casting, die, soldering)	Technology transfer from countries that have developed the automotive industry
	(viii) CSR	OJT

Source: Prepared by the Survey Team

4.5 Establishment of Supply Chain

Figure 4.5-1 shows the supply chain of automobile manufacturing. Generally, enhancement of automobile supply chain needs to be started from the customer side. This means new car dealers, used car dealers, after-sales services and recycling services will be facilitated first. Some of these services already exist in the country, and along with the enhancement of automotive industry, there will be more and refined service operators. After progress of NAIDP implementation, there will be more Tier-1 manufacturers. They will supply their parts not only to car assemblers but also to after-sales service shops or workshops. At the beginning stage of KD, most of the components will be imported. But at the following stage of KD, some parts which are used for maintenance such as brake pads are good to start production locally. If some components are produced locally, sub-units (Tier-2) and parts (Tier-3) for the components manufactured by the Tier-1 manufacturers will also be considered for local production. Therefore, increase in demand for ownership of vehicles and local assembling will facilitate establishment of the supply chain between assemblers, Tier-1 manufacturers and local auto parts manufacturers.

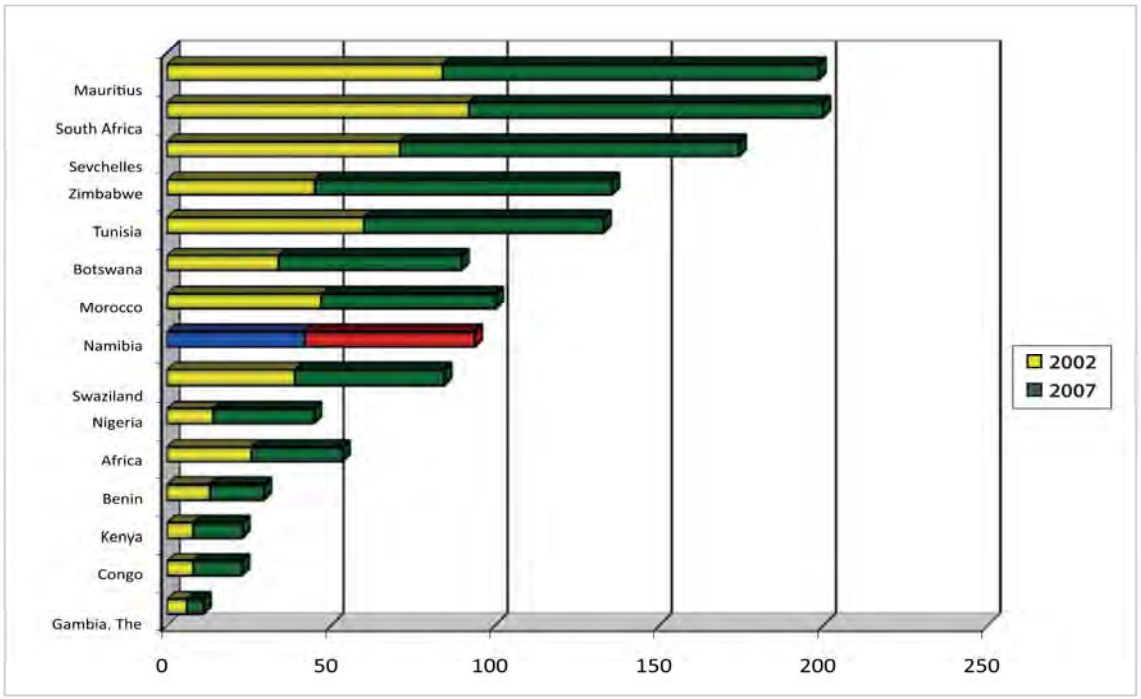


Source: Prepared by the Survey Team

Figure 4.5-1 Supply Chain of Automotive Industry

4.6 Future Market Scale

As described in Subsection 3.1.2, the rising new middle class will increase the purchasing power for durable consumer goods and especially vehicles that are associated with changing lifestyle. As a result, an increase of new vehicle sales and the further expansion of the car industries can be expected in Nigeria in long term. According to Figure 4.6-1, the number of passenger cars per 1,000 people in 2007 is around 50 cars in Nigeria and 200 in the Republic of South Africa respectively. The population of upper middle class in Nigeria already has exceeded them in South Africa as stated in Table 3.1-2 and the annual GDP is forecasted to grow more than 5 percent by the World Bank (5.5 percent in 2015, 5.8 percent in 2016 and 6.2 percent in 2017 (Source: http://data.worldbank.org/country/nigeria). Therefore, if the number of passenger cars owned in Nigeria is expected to be 20 percent of total population, it will be more than 30 million passenger cars owned in the future. In case of the Republic of South Africa, 6.1 million passenger cars are owned and 440,000 new passenger cars are sold annually in 2012 (Source: data from Japan Auto Manufacturers Association). If these figures can be applied to Nigeria, the potential of annual new passenger car sales is more than 2 million in Nigeria. Such expanding market size will be the big opportunity for the Nigerian auto industries in the long term.



Source: AfDB, "Middle of the Pyramid: Dynamics of the Middle Class in Africa 2011"

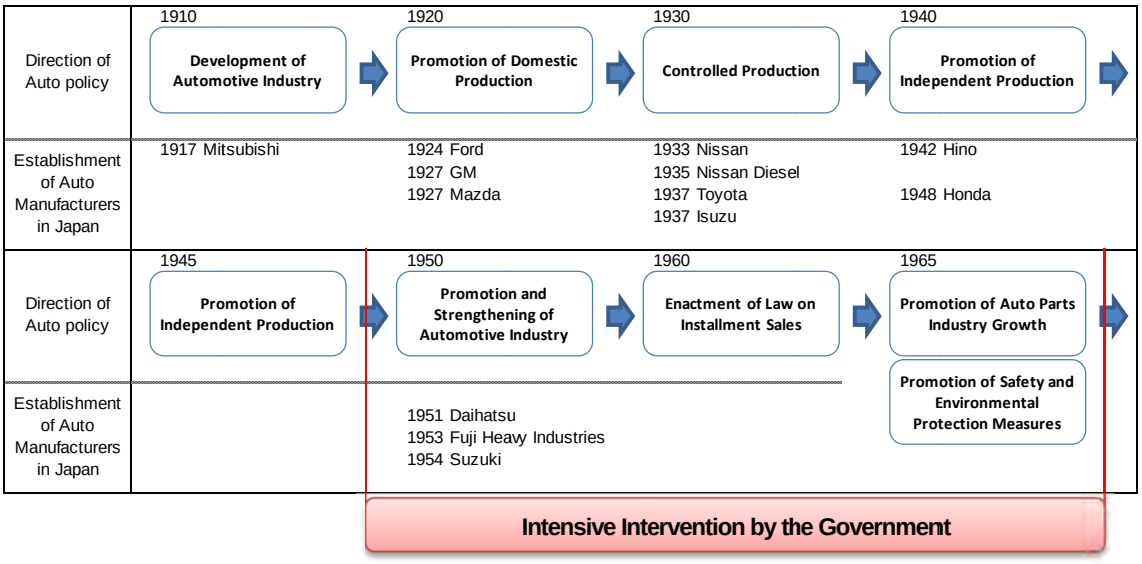
Figure 4.6-1 Number of Passenger Cars per 1,000 People

5. Potential Cooperation Area

5.1 Lessons Learned from Experience of Other Countries

5.1.1 Japan

Before World War II, the automotive industry development was considered as a measure for national defence. Ford and General Motors (GM) started assembly in Japan in 1924 and 1927 respectively. In response to this, the national government established a committee to promote domestic production of automobiles in 1926 and unveiled the related policy such as designation of standard types of bus and truck and increase in import duties. After World War II, the national government resumed the intervention in the development of automotive industry based on lifting the restrictions of passenger car production and vehicles sales by the General Headquarters of the Allied Forces in 1949. Figure 5.1-1 shows the transition of auto policy in Japan. After World War II, the national government intervened in the development of not only the auto assembly but also auto parts manufacturing towards export to other countries in the future. The interventions were intensively provided during 1950s and 1960s through rationalization in cooperation with the automotive industry.



Source: Compiled by the Survey Team based on "Automotive Industry Handbook 2001"

Figure 5.1-1 Transition of Auto Policy in Japan

In order to meet the sharp rise in demand for maintenance parts of trucks due to the Korean War, the national government resumed the regulations on accreditation of quality auto parts that were introduced before World War II. The regulation provided the following measures:

- Accreditation of manufacturers that produce quality auto parts
- Ranking (Grade A & B)
- Sensitization of auto parts manufacturers

In 1950s and 1960s, the national government introduced several policies to strengthen the foundation of automotive industry as shown in Table 5.1-1.

Table 5.1-1 Japan's Auto Policy in 1950s and 1960s

Year	Policies	Outline	Effect
1950s			
1952	7-year plan on import substitution and production increase of passenger cars	Goal: 50,000 units (Small 50%, Middle 33%, Large 17%) by 1957	165,094 passenger cars in 1960
1952	Policy for foreign investment realty to passenger cars	Based on the Law on Foreign Investment • Prohibition of foreign investment except manufacturing facilities that contribute to development of domestic industry • Acceptance of partnership between foreign auto manufacturers and domestic chassis manufacturers • Gradual increase of local content ratio	Partnership between - Nissan and Austin - Hino and Renault - Mitsubishi and Kaizer-Frazer/Willys - Isuzu and Roots
1952	Policy for partnership and assembly contract with foreign manufacturers on passenger cars	• Government guarantee to remittance for payment of royalty and drawings • Domestic production of auto parts (90% of 11 items) within 5 year after concluding the agreement (Engine, Gear, Front axle, Rear axle, Clutch, Wheel, Brake system, Steering gear, Chassis frame, Cooling system, Propeller shaft/universal joint) • Transfer of manufacturing license • Assembly of foreign vehicles that is not intended for localization is treated as importation of fully built units	
1952	Policy measures for quality improvement of auto parts industry	• Quality and durability test of auto parts locally produced • Expansion of the number of auto parts applicable to industrial standardization • Fund for rationalization of auto parts manufacturing plants	- Development of auto parts industry - Standardisation of locally manufactured auto parts
1955	Concept of national car production (not adopted as regulations)	Appointment of vehicle type and manufacturer ⇨ Rejection by existing manufacturers ⇨ Entry of new manufacturers ⇨ Start of light motor vehicles (compact vehicles) production instead of national car	Promotion of new assemblers such as - Fuji Heavy Industries - Suzuki - Mazda - Honda
1956	Extraordinary measures law on machinery industry development	• First round 26 items • Second round 16 items ⇨ Average 20% cost down ⇨ Quality improvement: Test centre for uniformity and durability,	- Upgrading quality of locally manufactured auto parts - Establishment of supply chain between

Year	Policies	Outline	Effect
		reaching the international standards by 1960	assemblers and auto parts manufacturers
1960s			
1961	Extraordinary measures law on machinery industry development (Amendment)	• Promotion of commercial mass production of auto parts • Cost down	- Strengthening supply chain between assemblers and auto parts manufacturers - Promoting formation of supplier group
1964	Shifting from foreign exchange quota to import quota	-	Promotion of local manufacturing
1965	Liberalization of fully built passenger cars imports	-	Deregulation of auto market
1966	Extraordinary measures law on machinery industry development (Extension of effective period until 1970)	• Establishing independent corporate management (balanced management between R&D, design, production, sales, aftersales services) • Horizontal specialization between auto manufacturers and auto parts manufacturers • Shifting from single part production to unit production ⇨ Enhancing merger/ coalition of auto parts manufacturers (between Tier 1 and Tier 2/3)	- Strengthening supply chain between assemblers and auto parts manufacturers - Promoting formation of supplier group
1970s			
1978	Abolition of tariffs on fully built unit imports	-	Deregulation of auto market

Source: Compiled by the Survey Team from "Automotive Industry Handbook 2001" and "Post-war Auto Policy in Japan"

Lessons learned from Japan's previous automotive policies are as follows:

- Starting from CKD in partnership with foreign assemblers, with strict enforcement of local content development
- Giving incentives to local auto parts manufacturers to enter into the market of vehicle assembling
- Selecting auto parts to be developed by priority towards import substitute
- Realising intensive allocation of financial resources to the prioritised auto parts manufacturing

As stated in Subsection 2.1.1 History of Automotive Industry Development, the Nigerian automotive industry experienced decline. In order to develop the automotive industry through the partnership with foreign assemblers, real and close ties with the foreign assemblers and local contents manufacturers are very important to upgrade the quality of products locally manufactured. For that purpose, the target of local content ratio needs to be set in quick manner. Strong commitment by the Federal Government on the support of auto parts industry also needs to be associated with a strategic plan of local content development.

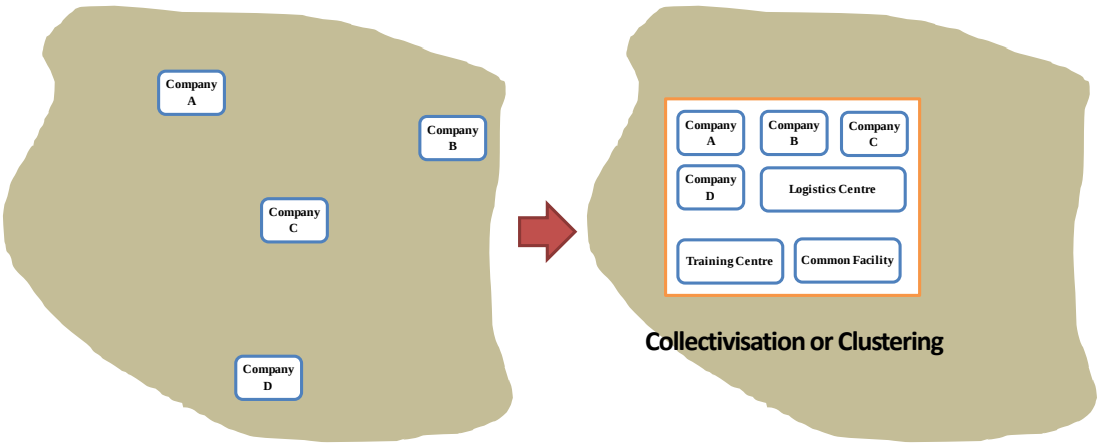
The Japan's experience of establishing supply chain with assemblers and auto parts manufacturers is a good example for Nigeria to develop the automotive industry not only in assembling but also auto parts manufacturing.

In addition to the automotive industry development plan, upgrading the small and medium enterprises (SMEs) is also one of the critical issues on the industrial development. In Japan, upgrading the SMEs through subsidies to collectivisation and financing, diagnosis and advice has been implemented as the SMEs development programmes. Those measures have supported the development of infrastructure and facilities that may be difficult for individual companies to invest, and strengthening of the business foundation and management practices. There are several types of the programmes as follows:

- Collectivisation or clustering
- Relocation/renovation in collaboration with regional development
- Construction of common facilities that can be used by member companies of programmes, such as processing facilities, R&D laboratories, logistics centre and so on.
- Consolidation or construction of common factory that member company can move in

Figure 5.1-2 shows the concept of collectivisation/clustering. Generally, the capacity of manufacturing SMEs is not strong enough to individually invest in automation or modernization of the manufacturing process, environmental protection facilities, R&D laboratories and so on. Therefore, some SMEs form a cooperative to apply for the support programmes. The SMEs upgrading programmes provide the following supporting measures:

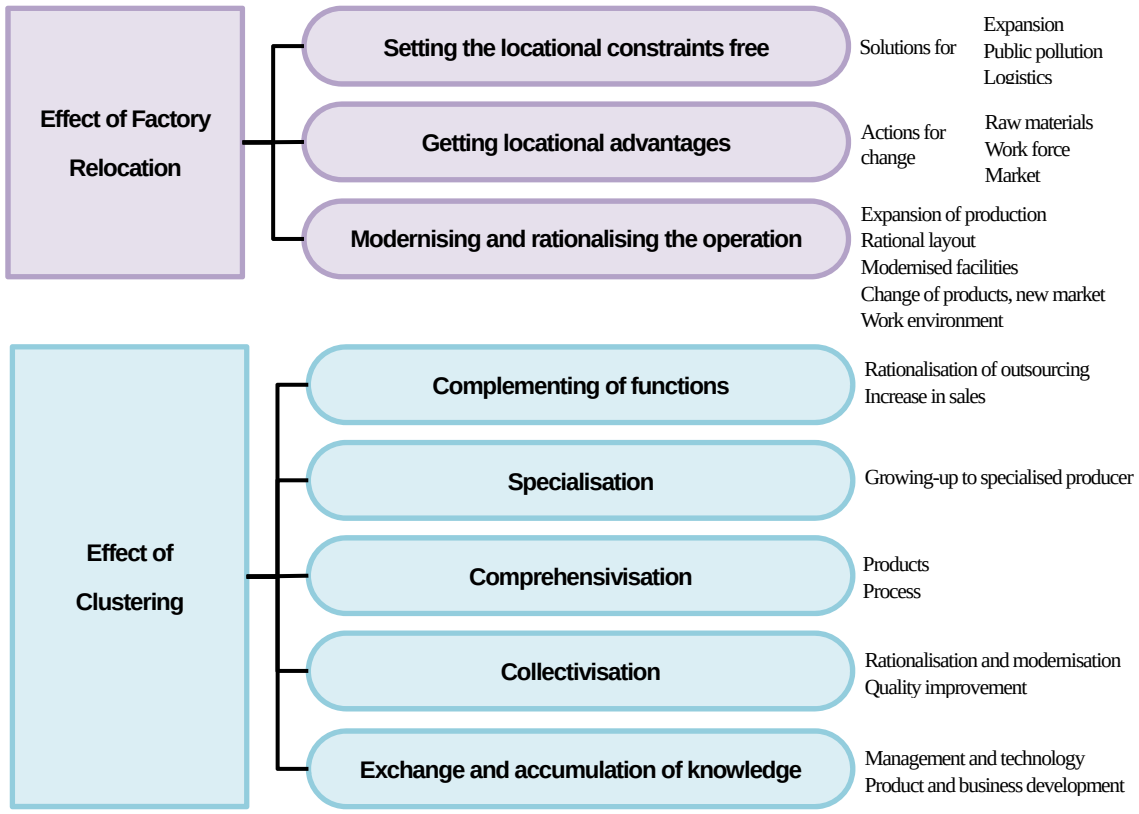
- Provision of loans with low interest and long period (20 years)
- Provision of consulting services to selecting programme member companies and develop business plans
- Tax reduction/exemption (depending on location)



Source: Compiled by the Survey Team

Figure 5.1-2 Concept of Collectivisation/Clustering under the SME Upgrading Programme

Figure 5.1-3 shows the effect that may be seen from collectivisation or clustering. Development of industrial parks by collectivisation or clustering is exactly consistent with an aim of the development of automotive supplier parks and there are many measures and policies as a reference not only for the automotive sector but for promotion of supporting industry development.



Source: Website of Kobe Enterprise Promotion Bureau, City of Kobe

Figure 5.1-3 Effects of SMEs Upgrading Programmes

5.1.2 Comparison with Other Countries

(1) Automotive Policy

Table 5.1-2 shows the outline of automotive policy at an early stage of industrial development in some countries that can be examples for comparison with Nigeria.

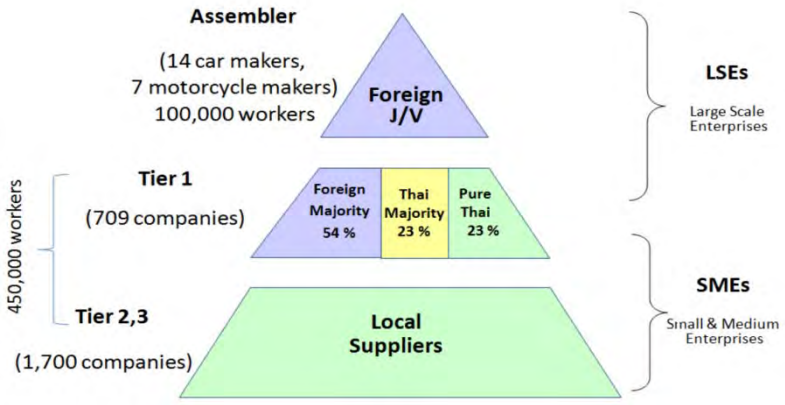
Table 5.1-2 Automotive Policy at an Early Stage in Some Countries

No.	Country	Policy/Plan		
		Year	Measure	Result
1	Brazil	1952	Embargo on import of auto parts	- Establishment of assembling plants by foreign manufacturers such as VW (1953), Chrysler (1953), Toyota (1958)
		1953	Embargo on import of fully built units	
		1956	Implementation of automotive industry development plan (Target of local content ratio at 90 percent in weight basis by 1960)	- Production of local-made vehicles - Achievement of 95 percent local content ratio for passenger cars - Achievement of local production over 1 million (passenger cars and commercial vehicles) - Increase in prices of locally made vehicles
2	Thailand	1971	Limitation of models that can be assembled 25 percent of local contentment ratio with CKD	- Protection of domestic industry from international competition - Development of supporting industries for automotive manufacturing - Establishment of supply chain between assemblers and local contents manufacturers
		1978	Embargo on import of some passenger cars and big buses (Towards protection of domestic manufacturers and improvement of local content ratio)	
		1979	Increase in local content ratio at 5 percent per year	
		1991	Lifting of embargo on import of fully built units	Deregulation of auto market
		2000	Lifting of local content regulations	- Promotion of new investment in local assembling - Less competitiveness of local auto parts manufacturers (Combination with liberalisation of interregional trade in ASEAN countries)
3	Indonesia	1969	Embargo on import of fully built units Obligation of CKD with domestic capital License system of assemblers (control on entry)	- Protection of domestic industry from international competition - Development of supporting industries for automotive manufacturing - Establishment of supply chain between assemblers and local contents manufacturers
		1976	Fiscal measures to promote commercial vehicle production Regulations of nationalisation by auto parts	
		1993	Lifting of embargo on import of fully built units Reduction of tariff on auto parts imports (Higher local content ratio, lower import tariff)	Deregulation of auto market
4	Republic of South Africa	1961	High (prohibitive) tariff on import of fully built units Compulsory CKD with domestic capital License system of assemblers (Control on entry)	- Promotion of partnership with foreign manufacturers - Decrease in imports of FBUs
		1989	Increase in local content ratio (75 percent by 1997)	- Manufacturing of a wide variety of products in small quantities - Inefficient manufacturing systems - Increase in prices of locally made vehicles
		1993	Lifting of Embargo on import of fully built units Reduction of tariff on auto parts imports	Deregulation of auto market

No.	Country	Policy/Plan		
		Year	Measure	Result
		1995	Introduction of Motor Industry Development Programme (MIDP) (Introduction of a duty credit certificate system)	- Promotion of selected model assembling by OEMs - Reduction of complexity for domestic component suppliers - Promotion of exports by OEMs to get more duty credits - Increase in local production - Decrease in prices of locally made vehicles
		2008	Introduction of Automotive Production and Development Programme (APDP) (Import duty, vehicle assembly allowance, production incentive and automotive investment scheme)	

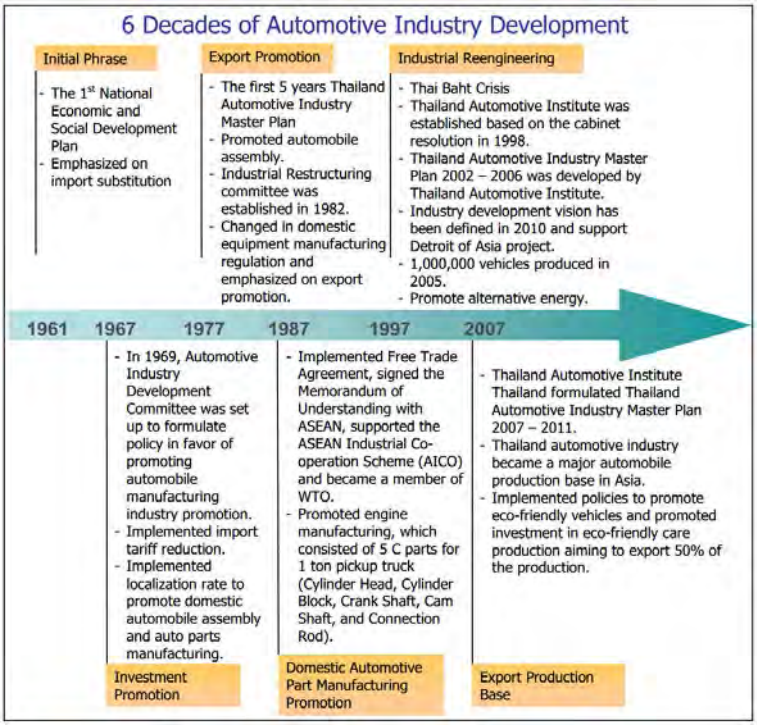
Source: Compiled by the Survey Team

Thailand is one of the success cases of automotive industry development. The automotive industry accounts for 10 percent of Thailand's gross domestic product (GDP). In 2012, the automotive production capacity was 2.75 million vehicles and the industry employed over 500,000 people. Figure 5.1-4 shows the structure of automotive industry in Thailand. There are approximately 709 Tier-1 auto parts suppliers and 1,700 Tier-2 and 3 suppliers in Thailand. More than half of the Tier-1 suppliers are car parts companies. Of the top 100 auto parts manufacturers in the world, 50% have factories in Thailand. Figure 5.1-5 shows the history of automotive industry development in Thailand.



Source: Thai Auto parts Manufacturers Association and BOI as of Aug 2012

Figure 5.1-4 Structure of Automotive Industry in Thailand



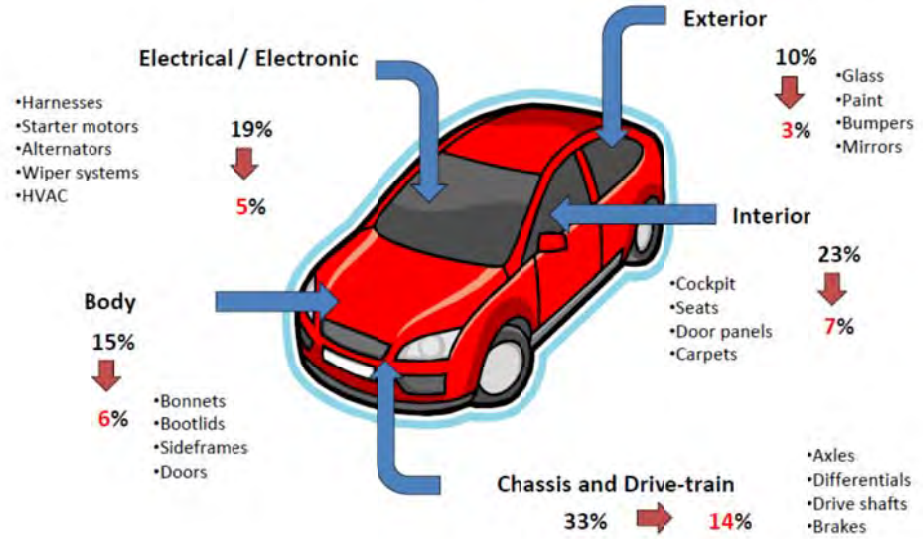
Source: Thai Auto parts Manufacturers Association and BOI as of Aug 2012

Figure 5.1-5 History of automotive industry development in Thailand

NAIDP was formulated based on the success of automotive industry development in the Republic of South Africa. Previously, Motor Industry Development Programme (MIDP) was introduced. Key components of MIDP are 1) Duty-free allowance for OEMs to import components, 2) Duty credit certificate system and 3) Productive asset allowance for OEM and related component investments. It was expected that those key components would stimulate local content production. However, all these encouraged more imports. The reasons why the local content remains low are as follows:

- Volumes much lower than elsewhere, except where component companies export.
- The MIDP allows OEMs to offset duties through exports.
- The Rand is overvalued, reducing the prices of imported components.
- The component manufacturers are not yet globally cost competitive.

Based on the review of MIDP, Automotive Production and Development Programme (APDP) was formulated. Figure 5.1-6 shows the current situation of breakdown of costs and local content. The components including local materials are electrical/electric, body, exterior, interior chassis and drive-train. Those components account for 65 percent of the total material cost. Of these, the local materials account for 35 percent to the total material cost. The remaining 35 percent of total material cost does not include the local materials. This means that local content ratio of automotive industry in the Republic of South Africa is 35 percent in 2011.



No.	Components including Local Materials	Percentage of Components to Total Material Cost	Percentage of Local Material to Total Material cost
1	Electrical/Electronic	19	5
2	Body	15	6
3	Exterior	10	3
4	Interior	23	7
5	Chassis and Drive-train	33	14
Total		65	35

Source: NAACAM, "The South African Automotive Industry, the MIDP and the APDP", October 2011

Figure 5.1-6 Breakdown of Costs and Local Content in the Republic of South Africa

The important things learned from the history of automotive industry in some countries are as follows:

- CKD with regulation of local content ratio is the starting point.

  Most of the countries including Japan started from CKD to develop the domestic automotive industry. CKD requires use of local contents and the target is set at certain level such as 30 percent. DKD or SKD can realise imports of all the KD parts and this may lead to the second experience of less participation of local contents manufacturers in the manufacturing process.

  According to the history of automotive development in other countries, the embargo of import of FBUs and auto parts continued for 20-30 years. During the period, those countries developed the automotive industry. This means that those countries spent decades for developing local contents manufacturers and making them competitive in the international market.

- Embargo on import of FBUs and auto parts may cause high price of automobiles in the domestic market and lead to lack of international competitiveness.

  Protection of domestic industry may lead to increase in domestic price of products as was experienced in Brazil and the Republic of South Africa. It makes the local products less competitive in the international market in the future. When the protection policy is implemented, actions to reduce inefficiency in local assembling and upgrade the quality of local products need to be accompanied.

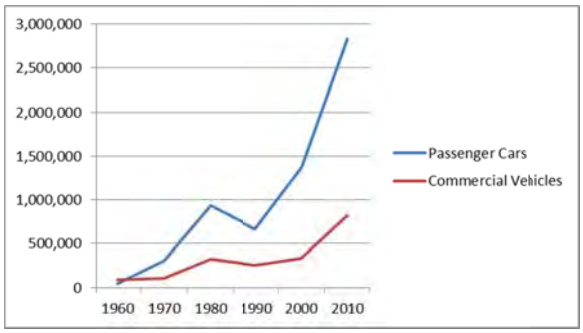
- Fiscal measures may result decrease in domestic demand due to higher price.

  The fiscal measures may protect the domestic industry from the international competition, but they may also cause ineffectiveness of manufacturing and high prices of local products and decrease in the domestic demand. This may create the bad cycle of low demand, low production, and ineffective production. In order to make the fiscal measures function properly, the government needs to support introduction of purchasing scheme and formulation of formal market of used cars and after-sales services in addition to reduction of inefficiency in local manufacturing and upgrading of locall products.

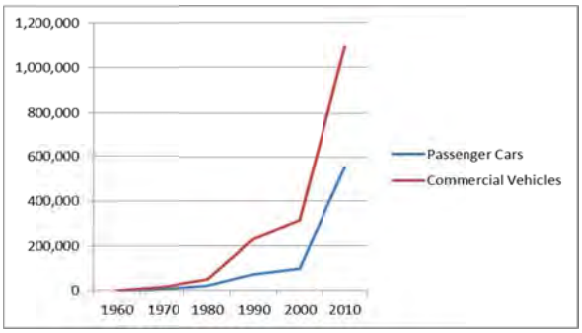
(2) Automotive Production

Figure 5.1-7 shows the history of automotive production in some countries. Those figures for Nigeria are not available.

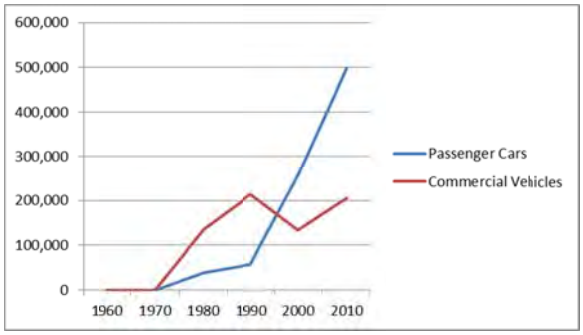
a) Brazil



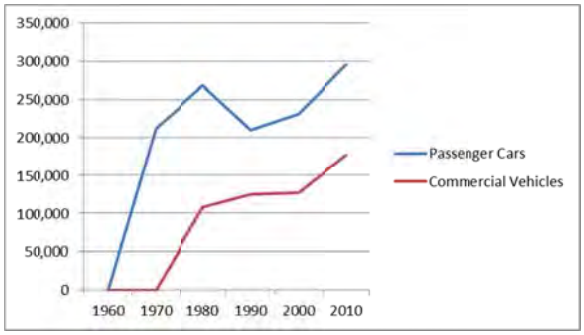
b) Thailand



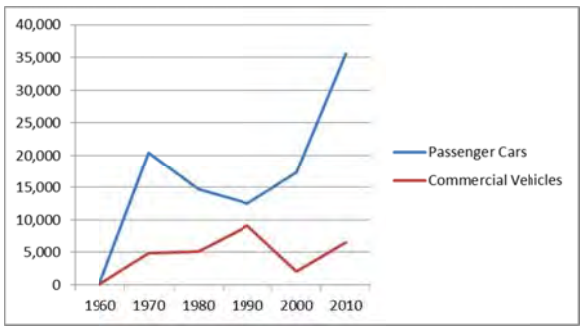
c) Indonesia



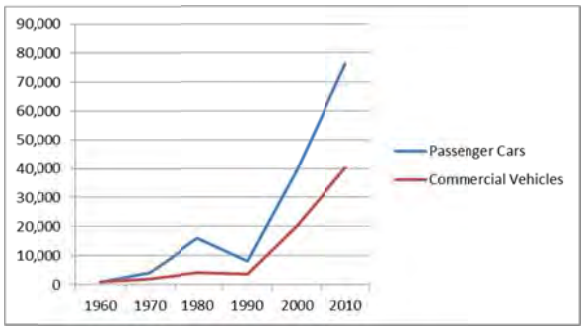
d) Republic of South Africa



e) Morocco



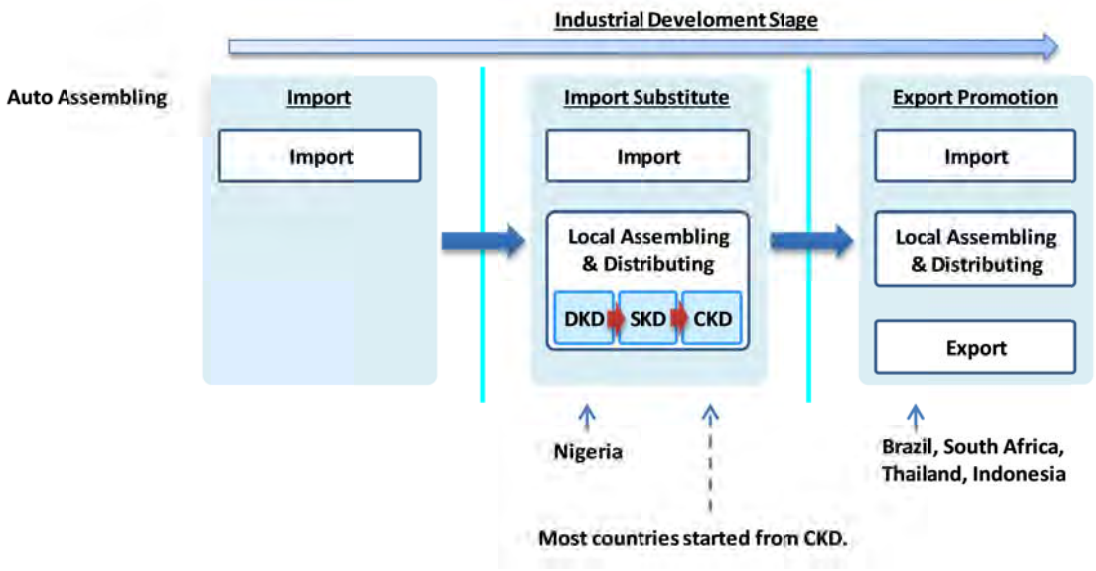
f) Egypt



Source: Compiled by the Survey Team from Automotive Industry Handbook and Statistics of Japan

Figure 5.1-7 Automotive Production in Several Countries

Figure 5.1-8 shows the general automotive industrial development stages and current status of Nigeria and some other countries. As discussed in Subsection 2.1.1 History of Automotive Industry Development, the automotive industry in Nigeria started the local assembling in 1960s and this declined in 1980s and 1990s due to policy inconsistency and economic conditions. In addition, technology transfer from foreign assemblers to local manufacturers was limited during the period of partnership between the Nigerian Government and foreign assemblers. Factories can be utilised after renewal, refurbishment or replacement of assembling lines. However, the current situation of passenger car assembling can be considered to be almost at the beginning stage in terms of production volume and local manufacturer development.



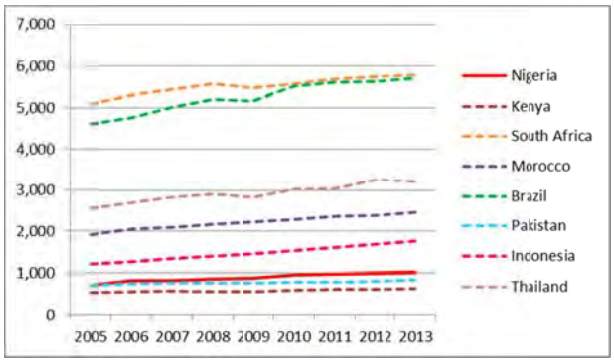
Source: Compiled by the Survey Team

Figure 5.1-8 Development Stages of Automotive Industry and Current Status of Nigeria

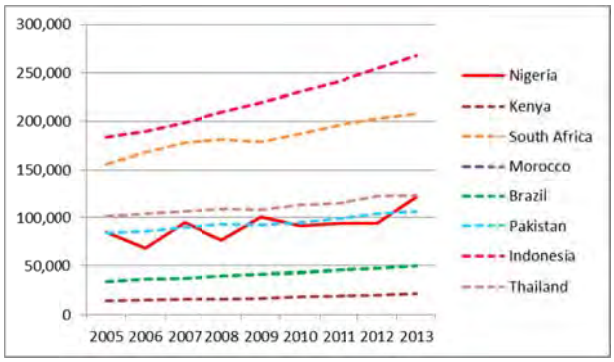
(3) Socio-Economic Conditions

Socio-economic conditions are the factors that may affect the demand and production. Figure 5.1-9 shows the comparison of Nigeria's socio-economic situation with other automobile producing countries. Nigeria's GNI per capita and energy consumption stay at lower level compared to other countries, while the household final consumption expenditure is not so low. Education level is also a very important condition for the industrial development. Both primary and secondary enrollment ratios in Nigeria belong to the lower group. Especially, secondary schools are a source of human resources such as mechanics and engineers. The secondary school enrollment in Nigeria is about 40 percent, while the education level is relatively better in terms of quality, compared to other African countries according to the result of interview survey in Nigeria.

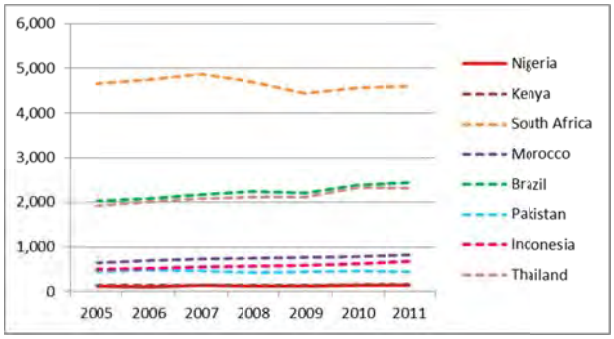
1) GNI Per Capita
(Constant 2005 US$)



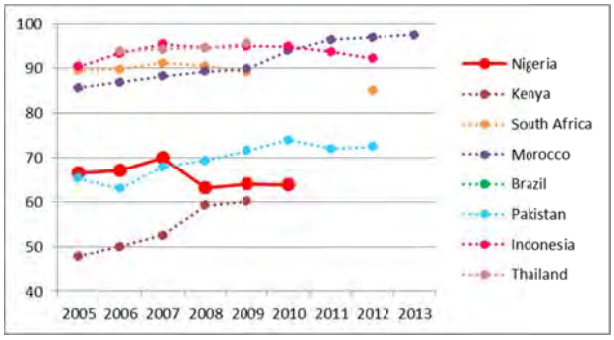
2) Household Final Consumption Expenditure
(constant 2005 US$)



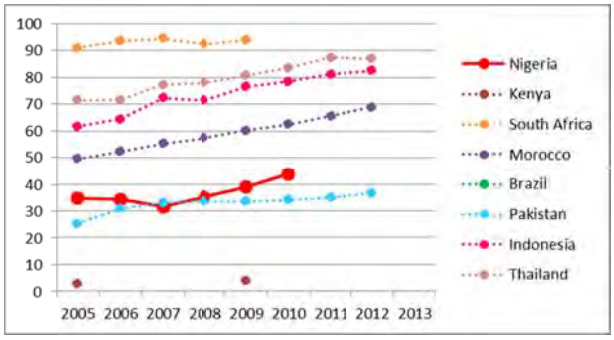
3) Energy Consumption (kWh per capita)



4) Primary School Enrollment (% net)



5) Secondary School Enrollment (% gross)



Source: Compiled by the Survey Team from World Bank Statistics

Figure 5.1-9 Socio-Economic Situation in Several Countries

Table 5.1-3 and Figure 5.1-10 show the GDP by sector for several countries and percentage of manufacturing sector in GDP respectively.

Table 5.1-3 GDP by Sector for Several Countries

GDP by country (current US$, million)

Nigeria	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	88,206	24	91,819	22	102,318	22	109,579	21
Industry	81,194	22	102,113	25	109,726	24	114,797	22
-Manufactures	25,834	7	28,822	7	37,038	8	46,962	9
Service	199,663	54	217,813	53	251,398	54	297,428	57
Total GDP	369,062		411,744		462,979		521,803	

Egypt	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	30,644	14	35,400	15	36,796	14	40,796	15
Industry	83,177	38	89,680	38	102,504	39	106,069	39
-Manufactures	37,211	17	40,120	17	42,053	16	43,516	16
Service	105,066	48	113,280	48	120,903	46	125,108	46
Total GDP	218,888		236,001		262,832		271,973	

Kenya	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	11,200	28	12,167	29	14,597	29	16,573	30
Industry	8,400	21	8,811	21	10,570	21	11,049	20
-Manufactures	5,200	13	5,454	13	6,040	12	6,629	12
Service	20,400	51	20,978	50	25,168	50	28,174	51
Total GDP	40,000		41,955		50,335		55,243	

Morocco	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	13,616	15	14,883	15	13,427	14	17,652	17
Industry	27,231	30	29,766	30	28,771	30	30,112	29
-Manufactures	14,523	16	15,875	16	15,345	16	15,575	15
Service	49,924	55	53,579	54	52,747	55	57,110	55
Total GDP	90,771		99,221		95,904		103,836	

South Africa	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	10,956	3	8,078	2	11,470	3	7,013	2
Industry	109,562	30	121,168	30	107,055	28	98,176	28
-Manufactures	51,129	14	52,506	13	45,881	12	42,076	12
Service	244,689	67	274,648	68	263,813	69	245,441	70
Total GDP	365,208		403,894		382,338		350,630	

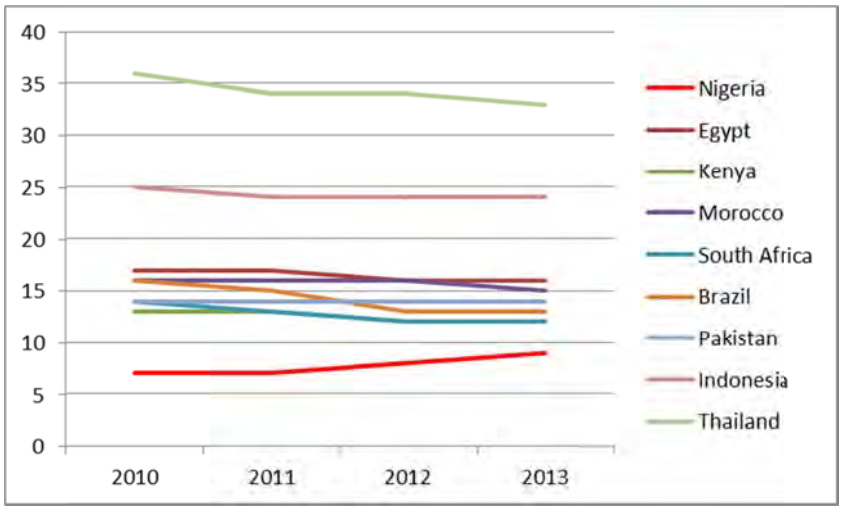
Brazil	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	107,153	5	123,835	5	112,439	5	134,740	6
Industry	600,059	28	693,475	28	584,683	26	561,418	25
-Manufactures	342,891	16	371,504	15	292,342	13	291,937	13
Service	1,435,856	67	1,659,386	67	1,551,659	69	1,549,514	69
Total GDP	2,143,068		2,476,695		2,248,781		2,245,673	

Pakistan	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	42,520	24	55,533	26	56,096	25	58,072	25
Industry	37,205	21	44,853	21	49,364	22	48,780	21
-Manufactures	24,803	14	29,902	14	31,414	14	32,520	14
Service	97,441	55	113,201	53	118,924	53	125,435	54
Total GDP	177,165		213,587		224,384		232,287	

Indonesia	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	106,379	15	126,890	15	131,508	15	121,568	14
Industry	333,320	47	397,588	47	412,058	47	399,439	46
-Manufactures	177,298	25	203,024	24	210,413	24	208,403	24
Service	269,493	38	321,454	38	341,920	39	347,338	40
Total GDP	709,191		845,932		876,719		868,346	

Thailand	2010	(%)	2011	(%)	2012	(%)	2013	(%)
GDP Sector								
Agriculture	38,269	12	44,937	13	43,916	12	46,470	12
Industry	143,509	45	148,639	43	161,025	44	166,518	43
-Manufactures	114,807	36	117,528	34	124,428	34	127,793	33
Service	137,130	43	152,096	44	161,025	44	174,263	45
Total GDP	318,908		345,672		365,966		387,252	

Source: Compiled by the Survey Team from World Bank Statistics



Source: Compiled by the Survey Team from World Bank Statistics

Figure 5.1-10 Percentage of Manufacturing Sector in GDP

In terms of sector GDP amount, Nigeria's manufacturing sector GDP is more than that for Kenya, Morocco and Pakistan. However, when it comes to the percentage in total GDP, Nigeria is the lowest among the several vehicle manufacturing countries, as shown in Figure 5.1-10. Based on the analysis discussed above, the advantages and disadvantages of the Nigerian automotive sector are as follows:

[Advantages]

The household expenditure shows the positive trend. The rising middle class is also an advantage for the development of automotive market because increase in household income leads to the change of lifestyle and demand for the ownership of automobiles. It will promise the expansion of auto market in the country.

The enrollment of secondary schools also shows the positive trend. Basically, the level of human resources in Nigeria is better than in other African countries. The education at the secondary schools is very important to provide human resources to the automotive industry in the country.

[Disadvantages]

The manufacturing sector in Nigeria is still weak, compared to that in other countries. The percentage of the sector in GDP is the lowest among the countries shown in Figure 5.1-10. Further development of manufacturing sector, especially local contents manufacturers, is the priority issue to be addressed to develop the automotive industry in the country. As stated in the part on advantages, the level of human resources is relatively better in terms of quality, but the enrollment rate of primary and secondary schools belongs to the lower group. This means the education level is still low in terms of quantity. In addition to improvement of enrollment in the basic education, skills development needs to be upgraded and made practical in partnership with the foreign assemblers.

5.2 JICA's Past Cooperation in the Automotive and Related Sectors

JICA has been providing several countries with assistance on the automotive and related industries development. As shown in Table 5.2-1, most interventions are the type of technical cooperation projects. The technical cooperation projects, which optimally combine the "Dispatch of Experts," "Acceptance of Training Participants" and/or "Provision of Equipment", are the core operations of JICA's technical cooperation.

Table 5.2-1 JICA's Cooperation in Recent Years

No.	Country	Project	Duration	Type of Assistance	Summary	Activities	Achievement
1	Yemen	Capacity Development of Instructors of Vocational Training Institute in the Field of Automobile Mechanics for Yemen	2013~2016	Technical Cooperation Project	The project aims to improve capacity of TEVT trainers to improve training programmes and its delivery on automobile mechanics.	- Providing lectures on framework of trainint modules, how to plan training programmes and prepare its delivery - Holdign workshops on improvement of training curriculum	On-going
2	Mexico	Project for Automotive Supply Chain Development in Mexico	2012~2015	Technical Cooperation Project	The project aims to develop the institutional framework to strengthen the supply chain betwwen Japanese Tier-1 manufacturers and Local Tier-2 manufacturers.	- Conductin the survey on needs of Tier-1 manufacturers - Review the contents of manufacturers data base - Evaluating capacity of selected tier02 manufacturers - Improving the manufacturers data base	On-going
3	Pakistan	Automobile Industry Development Advisor	2012~2014	Technical Cooperation Project	Ensuring economic stability and promoting diversification of industries.	- Presenting suggestions on formulation of Auto Industry Policy (revision of Auto Industry Development Programme) - Providing information on market, auto sector policy and standards overt the world - Developing an implementation plan of priority projects - Providing lectures on technical, quality and safety standards	The assement result of achievement has not been disclosed.
4	Nigeria	Preparatory Survey on BOP Business on Automobile Recycling through Empowerment of BOP	2012~2014	Feasibility Study	Feasibility Study for BOP Business on Automobile Recycling.	- Conducting the feasibility study on automobile recycling	Feasibility Study Report
5	Philippine	Project for the Study on Motor Vehicles Regulations and Certification	2011~2012	Technical Cooperation for Development Planning	The project aims to develop the framework of accession to and operation of UN/ECE. 1958 Agreement and motor vehicle regulations and certification systems based on the agreement.	- Conducting surveys on existing standards and certification systems - Develop a new institutional framework of standards and cetification systems - Holding seminers on the new standards and cetification systems	Framework of accession to the UN/ECE. 1958 Agreement
6	Mexico	The Project for the Establishment of End-of-Life Vehicle（ELV）Management Plan	2010~2012	Technical Cooperation Project	The project aims to develop the ELV management plan.	- Conducting the fact finding survey on ELV - Investigating the instituional framework for implementation of ELV management plan - Forming a woking group and discussing approval of the plan	ELV management plan and its implemetation framework
7	Pakistan	Project for Automobile Industry Development Policy	2010~2011	Technical Cooperation for Development Planning	The project aims to develop action plans to impelement the Auto Industry Development Programme (AIDP), especially on quality and safety standards, towards upgrading products and technology of automotive industry	- Reviewing exsisting standards on quality and safety - Developing action plans to formulate and disseminate the quality and safety standards - Presenting suggestions on priority issues to further implementation of AIDP	The assement result of achievement has not been disclosed.
8	Oman	Advisor for Vocational Training Program in Oman	2008~2011	Dispatch of Experts	The project aims to support delivery of vocational training programmes on mechanical and automobile maintenance.	- Develop manuals of training of trainers for mechanical and automobile maintenance courses - Supporting delivery of traiing programmes and providing advice for the improvement	Manuals of training of trainers for mechanical and automobile maintenance courses
9	Thailand	Automotive Human Resource Development Project for Supporting Industries in Thailand	2006~2011	Technical Cooperation Project	The project aims to support Automotive Human Resource Development Project with dipatch of experts and provision of training equipment.	- Gathering information for providing advice and suggestions - Developing curriculum for training of trainers - Delivering the training proguramme - Holding seminars for managers of local SMEs	Curriculum for training of trainers on TPS, TQM, mould and die finishinf and so on
10	Saudi Arabia	Saudi-Japanese Automobile High Institute Project Phase 2	2006~2009	Technical Cooperation Project	The project aims to continuously improve the technical training programmes in response to needs of automotive industry	- Developing internal rules and operational manuals of the institute - Developing skill test programmes - Improving examination systems - Establishing a methodology for improvement of technical training programmes	Internal rules and operational manuals of the institute Improved curriculum and examination sytems

Source: Compiled by the Survey Team from data of JICA

There are several categories of interventions: Capacity development of training institutions, development of regulations/standards related to automotive industry, and formulation of automotive industry development plans. The following are the activities carried out in each category:

< Capacity Development of Training Institutions >

- Support to develop training curriculums, learning tools and training modules
- Support to compile institution's rules of management
- Support to develop programmes for training of trainers
- Support to develop the examination (achievement test and skills test) systems
- Support to improve the training programmes
- Support to develop the qualification systems of automotive engineers

< Development of Regulations/Standards related to Automotive Industry >

- Support to develop the automotive standards and certification systems
- Support to develop institutional framework and action plans to enforce the regulations and standards
- Support to sensitise local manufacturers on the regulations and standards

< Formulation of Automotive Industry Development Plans >

- Support to develop the automotive development plans
- Support to conduct the needs survey of Tier 1 manufacturers
- Support to develop the information systems (data base) covering the technical level and capacity of local manufacturers

The JICA's Past Cooperation shows implications that need to be considered when practitioners promote the automotive industry development. Table 5.2-2 summarises the implications.

Table 5.2-2 Implications by Category of JICA's Intervention

Category of Intervention	Implications
Capacity Development of Training Institutions	Developing the training curriculums, learning tools and training modules is just a first step to develop human resources in the industry. After that, weakness of institution's management, such as building partnership with private sectors and keeping quality of instructors may be realised. In order to provide practical training programmes and hands-on training, it is indispensable to work together with auto manufacturers and local content manufacturers. In addition, continuous capacity development of trainers is very important to meet needs of automotive industry.
Development of Regulations/ Standards related to Automotive Industry	In order to make local manufactures competitive with imported products, establishing technical standards that are compatible with international standards, sensitising and enforcing the local manufacturers and standardising the local products are the major challenges. That is the basic environment where the automotive industry can develop and become competitive.
Formulation of Automotive Industry Development Plans	Collaboration between assemblers and local component manufacturers is very important to develop local automotive industry. However, generally, foreign manufacturers do not have information of local content manufacturers or do not have opportunities to know them. On the other hand, local products usually do not

	meet the requirements of foreign assemblers in terms of quality, cost and delivery. In order to overcome such situation, it is necessary to develop data base that provides numerical/statistical information about the automotive industry and clarify detailed plans (or show clear action plans and milestones) on how to develop the local content industry.

Source: Compiled by the Survey Team

In addition to the implications by category shown in Table 5.2-2, its approach also implies the importance of phased assistance, depending on the progress of national plans. For example, the assistance to Pakistan is a good example for Nigeria. Pakistan set up the national automotive development policy to improve industrial competitiveness and the manufacturing industry. The auto industry development was specially targeted as it has wide effects on the national economy such as nurturing SMEs in supporting industries, manufacturing high value added products, increasing employment and having a potential for the growing industrial size. In 2007, the government introduced the 5-year program "Auto Industry Development Program" for the development of auto industry but little achievements were realised in 2012. Based on the above background, JICA started the "Project for Automobile Industry Development Policy". In this project, policies for the consistent, effective and systematic approach for development such as improving the productivity, setting up higher products standards were prepared. The following project, the "Project for strengthening the technology of SMEs for Producing the Automotive Parts", was conducted with JICA's assistance that supplied technical cooperation with SMEs for product management, metal mould and welding. In addition to this, the "Automobile Industry Development Advisor" was dispatched to improve the implementation of the auto policy that was started in 2012 and the "Project for Technical Support to Auto Parts Manufacturing Industry" was agreed with SME Development Authority in 2015 for technical assistance to enhance auto parts manufacturing industry in Pakistan. These consistent supports by JICA may be a good model for assistance to automotive industry development in Nigeria. As the current manufacturing stage is mostly DKD or SKD through imports of KD parts, a step-by-step approach may be a suitable for the situation in Nigeria to improve the technical level of supporting industries, instead of just developing industrial infrastructure such as supplier parks. As the current NAIDP is mostly focused on fiscal incentives and facility supports, these comprehensive supports are very complementary to the auto industries in Nigeria.

The Project for Automotive Supply Chain Development in Mexico also implies aspects to be considered in the process of cooperative project formulation. The project places on developing capacity of local Tier-2 manufacturers and enrooting continuous improvement activities (KAIZEN) in the local Tier-2 manufacturers because of importance of quality control to compete with the international market. Otherwise, the supply chain between the foreign Tier-1 manufacturers and local Tier-2 manufacturers will not be established. Therefore, the project includes the activities that promote communications between the manufacturers and introduce the continuous improvement. The local Tier-2 manufacturers are actively involved in the project activities and presented outputs/achievements from their improvement activities. When it comes to the local content manufacturers in Nigeria, their manufacturing activities are very low due to lack of demand for local manufacturing and low quality of their products. Direct involvement of local content manufactures in the assistance project is very important to promote further implementation of NAIDP.

5.3 Actions to be Taken for Development of the Automotive Industry

As discussed in Subsection 2.2.3, there are priority issues to be addressed for further implementation of NAIDP as follows:

- Low safety/security level
- Insufficient infrastructure development
- Unclear/abstract auto policy
- Unattractive fiscal measures
- Uncontrolled used car imports, grey imports and smuggling

The issues directly related to NAIDP are unclear/abstract auto policy, unattractive fiscal measures and uncontrolled used car imports, grey imports and smuggling. The fiscal measures are very sensitive to those who have vested interests and may need much time to be reviewed because the enforcement of levy on used was postponed several times.

Lessons learned from the history of automotive development policies in other countries show some aspects that need to be considered to realise the objectives of NAIDP. The following are the points:

- CKD with regulation of local content ratio is the starting point.
  - ⇨ Necessity of setting the target of local content ratio with milestones and commitment to support for development of auto parts industry
- Embargo on import of FBUs and auto parts may cause high price of automobiles in the domestic market and lack of international competitiveness.
  - ⇨ Necessity of upgrading the quality of local products to make the local production effective and competitive
- Fiscal measures may result decrease in domestic demand due to higher price.
  - ⇨ Necessity of government support for market development such as financial scheme for purchasing and market analysis and the formulation of formal market for used cars and after-sales services

NAIDP has a 54-month action plan, however, it is very simplified one and not very elaborated. Therefore, foreign assemblers may need to take affirmative action to invest in local assembling in the country. NAIDP must have detailed operational plans and clarify key players and task allocation among the players. Necessary preliminary steps for further implementation of NAIDP are as follows:

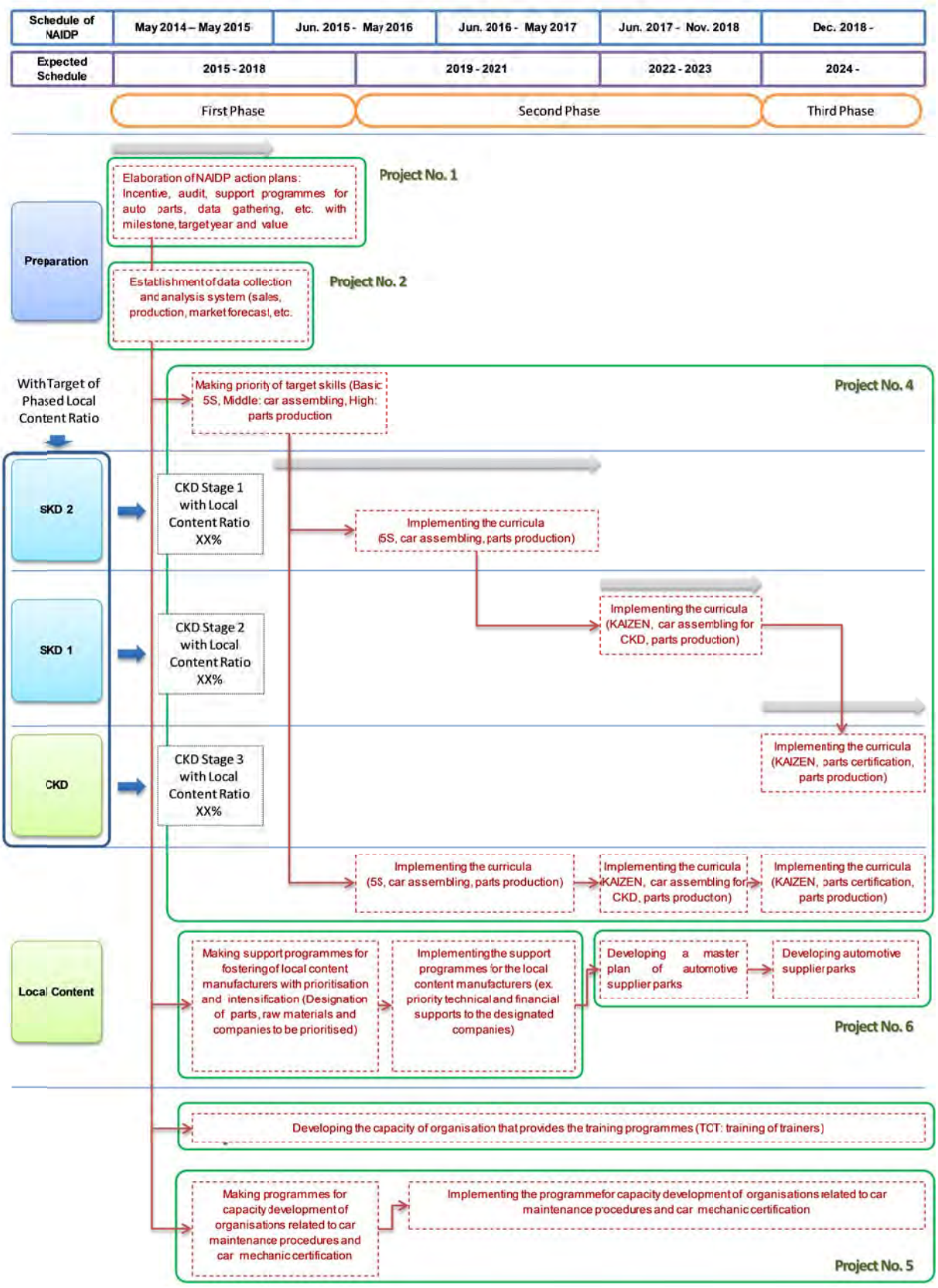
- ➢ Developing a master plan of automotive industry development (elaboration of operational plans for NAIDP)
- ➢ Developing the data gathering systems to understand the automotive market situation with figures and providing an informative guide to the automotive industry
- ➢ Clarifying and allocating tasks of related organisations to execute the master plan of automotive industry development

After the clarification and task allocation, each action must be executed as scheduled and the progress must be monitored by NAC. Table 5.3-1 shows the matrix of development phase, assumed action plans to be taken during the NAIDP implementation and possible assistance to each action. The matrix includes the components and development phase of NAIDP, actions to be taken to achieve the goals at each development stage scheduled (assumed based on the contents of NAIDP), and conditions to proceed to the following step for each component. Figure 5.3-1 shows the flow of prospective assistance projects with expected implementation schedule.

Table 5.3-1 Matrix of Development Phase and Assistance Required

				Development Stage								
Scenario of Automotive Industry Development		OEM Plants		Preparation		SKD2	Target Volume: 1,000 units or more / year	SKD1	Target Volume: 20,000 units or more / year	CKD	Target Volume: 200,000 units or more / year
		Auto Parts Industry		Preparation		Production and Supply of Spare Parts, Move into Automotive Supplier Parks		Production and Supply of Spare Parts, Move into Automotive Supplier Parks		Supply to OEM Plants	
Components of NAIDP	Industrial infrastructure (Development of Automotive Supplier Parks and Clusters)	- Development of auto parts industry in the clusters (Kaduna-Kano area, Anambra-Enugu area and Lagos-Ogun-Oyo area) - Development of infrastructure to support the auto parts industry in the clusters (Kaduna-Kano area, Anambra-Enugu area and Lagos-Ogun-Oyo area)	Action Plans (assumed)	- Developing a master plan of automotive industry development (elaboration of existing one) including following items, ・Audit system: to make sure related organisations are implementing actions correctly	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Examining operational structure of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Evaluating progress of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN	- Evaluating progress of the master plan	Lead Agency: NAC Supporting Agencies: FMITI MAN, NAMA, ALCMAN
				・Support programmes for the auto parts industry development	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (Audit/parts industry development: aftermarket auto parts, consumables)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyers, batteries)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyers, batteries)	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN NASENI, NOTAP MAN, NAMA, ALCMAN
				・Incentive system: more benefit for CKD and using local parts	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (Incentive/fiscal measures)	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (Incentive/fiscal measures) - Modifying the master plan of automotive industry development (Incentive/fiscal measures) if necessary	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (Incentive/fiscal measures) - Modifying the master plan of automotive industry development (Incentive/fiscal measures) if necessary	Lead Agency: FMF NCS Supporting Agencies: FMITI, NAC MAN, NAMA, ALCMAN
				-	-	-	-	- Developing a master plan of supplier parks	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC NASENI MAN, NAMA, ALCMAN State Governments	- Developing supplier park(s) based on the master plan	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC NASENI MAN, NAMA, ALCMAN State Governments
				- Studying data gathering systems	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	-Developing and implementing data gathering systems (Data gathering/ analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure)	Lead Agency: NAC MAN, NAMA, ALCMAN Supporting Agencies: FMITI, RMRDC, SON
				- Commitment from government about improvement of power supply/road network/security/medical care	Related authorities	-	-	-	-	-	-
			Conditions to proceed to next step	・Complete all plans and commitments ・Some OEM companies decide to start assembly		・More incentives for SKD1 ・Supplying maker qualified aftermarket auto parts and consumables		・More incentives for CKD ・A few applicable suppliers on quality, cost and delivery (QCD) (e.g. Tyers/batteries)		・More incentives for local procurement ・More applicable suppliers on QCD (Other parts)	
			Prospective assistance projects	- Developing a master plan of automotive industry development - Elaborating support programmes for auto parts industry development - Studying data gathering systems		- Promoting the master plan of automotive industry development - Implementing the support programmes for auto parts industry development - Developing and implementing data gathering systems (Data gathering/ analysis/disclosure)		- Developing a master plan of supplier parks - Implementing the support programmes for auto parts industry development		- Developing supplier park(s) based on the master plan	
	Skills Development	- Human resources development programmes in cooperation with OEM investors - Training/Manufacturing centres by ITF - Degree programme in automotive engineering	Action Plans (assumed)	- Making priority of target skills (Basic: 5S, Middle: Car assembling, High: Parts production) - Developing curricula - Developing training centres	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting OEM cooperators - Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (5S/Car assembling for SKD/Aftermarket auto parts and consumable production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Car assembling for CKD/Tyers and batteries production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Parts certification/other parts production)	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
				- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes	Lead Agency: ITF Training institutions Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
			Conditions to proceed to next step	・Complete all items		・Substantial number of trained people (SKD assembly)		・Substantial number of trained people (CKD assembly)		・Substantial number of trained people (Parts certification)	
			Prospective assistance projects	- Developing capacity of organisations that supply the training programmes							
	Standards	- Encouragement of local content manufacturers for quality management system (QMS) certification - Establishment of automotive component testing centres - Capacity development for vehicle inspection and certification	Action Plans (assumed)	- Developing audit systems for implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation	Lead Agency: SON Supporting Agencies: FMITI, NAC, RMRDC MAN, NAMA, ALCMAN
				- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance)	Lead Agency: NAC State Governments Supporting Agencies: FMITI, RMRDC, SON MAN, NAMA, ALCMAN	- Implementing car maintenance procedures (periodical maintenance)	Lead Agency: State Governments Supporting Agencies: FMITI, NAC, RMRDC, SON MAN, NAMA, ALCMAN
				- Developing the automotive component test centres	Lead Agency: NAC Supporting Agencies: FMITI, RMRDC, SON	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN	- Operating the automotive component test centres	Lead Agency: NAC SON Supporting Agencies: FMITI, RMRDC MAN, NAMA, ALCMAN
				- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics	Lead Agency: NAC ITF Supporting Agencies: FMITI, SON MAN, NAMA, ALCMAN	- Implementing certification system for car mechanic	Lead Agency: ITF Supporting Agencies: FMITI, NAC, SON MAN, NAMA, ALCMAN
				- Developing supporting programmes for QMS certification	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN	- Implementing supporting programmes for QMS certification	Lead Agency: SON Supporting Agencies: FMITI, NAC, ITF MAN, NAMA, ALCMAN
				- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF	- Developing capacity of organisations related to standards	Lead Agency: NAC SON Supporting Agencies: FMITI, ITF
			Conditions to proceed to next step	・Complete all items except developing car maintenance procedures and certification systems for car mechanics		・Complete car maintenance procedures and car mechanic certification systems ・A few applicable suppliers on QCD (Aftermarket auto parts/consumables/tyers/batteries)				・More applicable suppliers on QCD (Other parts)	
			Prospective assistance projects	- Developing capacity of organisations related to car maintenance procedures and car mechanic certification - Developing capacity of NAC and other related organisation to utilise auto parts testing for upgrading locally manufactured products							
	Investment Promotion	- Check of smuggling - Change of import duties on vehicles and auto parts	Action Plans (assumed)	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	-	-	-	-
				- Erasing loopholes such as smuggling and tax evasion	Lead Agency: NAC NCS Supporting Agencies: FMITI, FMF	- Erasing loopholes such as smuggling and tax evasion	Lead Agency: NAC NCS Supporting Agencies: FMITI, FMF	-	-	-	-
				- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF	Lead Agency: NAC Supporting Agencies: FMITI, BOI, NIPC, SMEDAN, SON MAN, NAMA, ALCMAN
			Conditions to proceed to next step	・Complete all item				・More incentives for local component manufactures			
			Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for investment promotion - Developing capacity of NAC and other related organisations to monitor the measure against smuggling							
	Market Development	- Affordable vehicles programme - Vehicle purchase scheme - Patronage by government and its agencies	Action Plans (assumed)	- Studying, developing and implementing data gathering system (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	- Studying, developing and implementing data gathering system (automotive sales in Nigeria)	Lead Agency: NAC Supporting Agencies: FMITI FMF, NCS MAN, NAMA	-	-	-	-
				- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments	- Institutionalising patronage by government and its agencies	Lead Agency: State House Supporting Agencies: FMITI, NAC State Governments
				- Developing vehicle purchase scheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Financial institutions Supporting Agencies: FMITI, BOI MAN, NAMA	- Developing vehicle purchase scheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Financial institutions Supporting Agencies: FMITI, BOI MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Supporting Agencies: FMITI, BOI MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class	Lead Agency: NAC Supporting Agencies: FMITI, BOI MAN, NAMA
				-	-	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchase scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchasing scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchasing scheme	Lead Agency: NAC Supporting Agencies: FMITI, BOI
			Conditions to proceed to next step	・Developing vehicle purchase scheme							
			Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for vehicle purchasing loan							

Source: Prepared by the Survey Team



Note: Project Number shows potential assistance projects to the target activities.
Source: Compiled by the Survey Team

Figure 5.3-1 Prospective Assistance Projects and Expected Implementation Schedule

Prospective Assistance Projects are classified in to six (6) groups as shown in Table 5.3-2. The table shows the relation between the potential assistance projects and target activities. The project numbers in the table fall into the "Project No." shown in Figure 5.3-1. The detail of the potential assistance projects are described in the following section.

Table 5.3-2 Potential Assistance Projects and Target Activities

No.	Potential Assistance Project Name	Target Activities	Remarks
1	Project on Development of Action Plans for Strengthening Automotive Industry	Elaboration of NAIDP action plans: Incentive, audit, support programmes for auto parts, data gathering, etc. with milestone, target year and value	Japan has much experience on this matter.
2	Project on Development of Market Research Systems for Automotive Sector	Establishment of data collection and analysis system (sales, production, market forecast, etc.)	Japan has much experience on this matter.
3	Project on Local Content Industry Development for Automotive Sector	Implementing the support programmes for the local content manufacturers (ex. priority technical and financial supports to the designated companies)	Japan has much experience on this matter.
		Making support programmes for fostering of local content manufacturers with prioritisation and intensification (Designation of parts, raw materials and companies to be prioritised)	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation
4	Project on Capacity Development of Training Centres for Automotive Sector	Making priority of target skills (Basic: 5S, Middle: car assembling, High: parts production	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
		Implementing the curricula (5S, car assembling, parts production)	
		Implementing the curricula (KAIZEN, car assembling for CKD, parts production)	
		Implementing the curricula (KAIZEN, parts certification, parts production)	
		Developing the capacity of organisation that provides the training programmes (TOT: training of trainers)	
5	Project on Development of Vehicle Inspection and Mechanics Qualification Systems	Making programmes for capacity development of organisations related to car maintenance procedures and car mechanic certification	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
6	Project on Development of A Master Plan for Automotive Supplier Park	Developing a master plan of automotive supplier parks	The phased approach (a feature of JICA's assistance) is required: ⇨ Development of action plans ⇨ Support of the implementation by stage
		Developing automotive supplier parks	

Source: Prepared by the Survey Team

The following are the classifications of the potential assistance projects by term:

[First Phase]

- Project on Development of Action Plans for Strengthening Automotive Industry (Project No. 1)

[First to Second Phase]

- Project on Development of Market Research Systems for Automotive Sector (Project No. 2)
- Project on Local Content Industry Development for Automotive Sector (Project No. 3)
  ⇨ The phased approach is required.
- Project on Capacity Development of Training Centres for Automotive Sector (Project No. 4)
- Project on Development of Vehicle Inspection and Mechanics Qualification Systems (Project No. 5)
  ⇨ The phased approach is required.

[Third Phase]

- Project on Development of A Master Plan for Automotive Supplier Park (Project No. 6)
  ⇨ The phased approach is required.

5.4 Potential Cooperation Area

Based on the result of interviews and analysis of information gathered, six (6) projects were identified as the potential assistance projects. The potential assistance projects are outlined as follows:

< First Phase >

Project No. 1　Project on Development of Action Plans for Strengthening Automotive Industry	
Type of intervention	Technical Cooperation Project or Dispatch of an Expert
Objective	- NAIDP implementation is accelerated.
Challenges to be addressed	- NAIDP action plans are not clear for foreign and local OEMs to utilise as basic documents to consider their investment in the following aspects: Incentive, audit (monitoring) systems, support programmes for auto parts industry, data gathering, etc. with milestone, target year and value
Output	- Detailed action plans for each component of NAIDP are developed with realistic/ measurable target indicators. - Tasks of automotive industry development are clearly allocated among the related organisations. - NAC's capacity to monitor the NAIDP implementation is strengthened.
Activities	- To review the existing action plans under NAIDP - To analyse the current situation of auto parts industry in Nigeria - To examine actions to be executed for each component of NAIDP - To set the target value of local content ratio and automobile production with milestones - To assess the capacity of organisations related to the automotive industry - To define tasks of organisations related to the automotive industry development for the implementation of NAIDP action plans - To examine task allocation among the related organisations to execute the action plans - To establish NAC's auditing (monitoring) systems of the NAIDP implementation
Input	< Japanese Side > • Dispatch of experts such as automotive development policy, local content development, fund management, and market survey and database construction • Training in Japan < Nigerian Side > • Appointment of some working level staff members from Policy Planning Department and Industrial Infrastructure Department
Duration	2-3 years

< First to Second Phase >

Project No. 2　Project on Development of Market Research Systems for Automotive Sector	
Type of intervention	Technical Cooperation Project or Dispatch of an Expert
Objective	- Market analysis systems are strengthened.
Challenges to be addressed	- Data gathering and analysis system (sales, production, market forecast, etc.) are not established and basic data for market analysis are not fully available in Nigeria
Output	- Data gathering procedure is established. - The automotive industry database is developed. - A methodology of market analysis is established.
Activities	- To enhance relationship between NAC, associations related to automotive industry and manufacturers - To encourage activities of the associations on automotive industry development - To sensitise automotive industry on importance of data gathering and market analysis - To make structure of automotive industry database - To gather data for each component of automotive industry database - To conduct statistical processing of data gathered - To issue the statistics and market analysis result periodically
Input	< Japanese Side > • Dispatch of experts such as automotive market analysis, database development, information services • Training in Japan < Nigerian Side > • Appointment of some working level staff members from Policy Planning Department and Industrial Infrastructure Department of NAC • Cooperation with Manufactures Association of Nigeria (MAN), Nigerian Automotive Manufactures Association (NAMA) and Automotive Local Content Manufactures Association of Nigeria (ALCMAN)
Duration	3 years

Project No. 3　Project on Local Content Industry Development for Automotive Sector	
Type of intervention	Technical Cooperation Project
Objective	- Quality, cost and delivery (QCD) in auto parts industry are improved.
Challenges to be addressed	- Local content manufacturers produce low quality products, many of which are not supplied to foreign and local OEMs. The support programmes for the local content manufacturers are not established (i.e. designation of parts, raw materials and companies to be prioritised, priority technical and financial supports to the designated companies)
Output	- Support systems for auto parts industry development are strengthened. - The technical knowledge and manufacturing method of auto parts manufacturers participating in pilot projects are improved. - The relationship between assemblers and auto parts manufacturers is established.
Activities	- To select priority local content and manufacturers to be upgraded, based on the result of capacity assessment of existing local content manufacturers - To set up pilot projects on auto parts development with utilisation of Automotive Development Fund (ADF) loans - To identify technological level of local content manufacturers on quality, cost and delivery (QCD) - To develop capacity development plan of local content manufacturers such as 5S/KAIZEN and improvement of specific manufacturing technology - To test the quality of locally-made auto parts at NAC's test centres - To introduce the locally-made auto parts to OEM plants and workshops/service centres
Input	< Japanese Side > • Dispatch of experts such as local content development, auto parts design, process and quality control • Training in Japan < Nigerian Side > • Appointment of some working level staff members from Policy Planning Department and Industrial Infrastructure Department of NAC • Cooperation with Standards Organisation of Nigeria (SON), Raw Materials Research and Development Council (RMRDC) and National Agency for Science and Engineering Infrastructure (NASENI)
Duration	3 years

Project No. 4　Project on Capacity Development of Training Centres for Automotive Sector	
Type of intervention	Technical Cooperation Project
Objective	- The capacity of automotive training centres to provide training programmes in response to the KD stage progress is strengthened.
Challenges to be addressed	- There are few programmes for training of trainers on 5S, car assembling, for SKD parts production for basic level programmes; KAIZEN, car assembling for CKD, parts production for middle level programmes; and problem solving, parts certification, parts production for high level programmes.
Output	- Training of trainers (TOT) systems for automotive training centres are established. - The relationship between automotive industry and automotive training centres is established. - The technical knowledge of trainers on skills required for each KD stage is improved.
Activities	- To make priority of target skills (Basic: 5S, Middle: car assembling, High: parts production) to be developed - To review and improve training manuals/guidelines/modules - To develop TOT plan - To conduct needs survey on skills development and public training programmes - To develop pilot OJT programmes in collaboration with automotive industry and private automotive academies - To revise the training programmes based on the feedback from stakeholders - To carry out working group activities among trainers and related officers of ITF on continuous improvement of training programmes
Input	< Japanese Side > • Dispatch of experts such as automotive process, quality control, specific technologies, institutional management • Training in Japan < Nigerian Side > • Appointment of key trainers and working level staff members s from ITF • Cooperation with NAC (some working level staff members from Policy Planning Department and Industrial Infrastructure Department)
Duration	3 years

Project No. 5　Project on Development of Vehicle Inspection and Mechanics Qualification Systems	
Type of intervention	Technical Cooperation Project
Objective	- Implementation structure of vehicles inspection and mechanics qualification systems is established.
Challenges to be addressed	- Vehicle inspection and mechanics qualification systems are not well established and implemented; therefore most vehicles on the road are poorly maintained.
Output	- The vehicle inspection systems are properly managed. - The mechanics qualification is established. - The excellent workshop recognition systems are established.
Activities	- To review the existing vehicle inspection systems (institutional framework, procedures, actual situation of inspection, etc.) - To develop action plans to improve the inspection systems - To develop the institutional framework of mechanics qualification and excellent workshop recognition - To carry out pilot projects to introduce the mechanics qualification and excellent workshop recognition systems in collaboration with automotive industry - To get feedback from the automotive industry and vehicles owners on the vehicle inspection and mechanics qualification systems
Input	< Japanese Side > • Dispatch of experts such as vehicle inspection system, mechanic qualification system, organisational structure and institutional systems • Training in Japan < Nigerian Side > • Appointment of some working level staff members from Policy Planning Department and Industrial Infrastructure Department of NAC • Officers in charge of vehicle inspection in some pilot states
Duration	3 years

< Third Phase >

Project No. 6　Project on Development of A Master Plan for Automotive Supplier Park	
Type of intervention	Technical Cooperation for Development Planning
Objective	- A draft master plan for automotive supplier park is development
Challenges to be addressed	- There is no detailed master plan for establishment of an automotive supplier parks that can be utilised for the nationwide development
Output	- A draft master plan for automotive supplier parks is development
Activities	- To conduct site surveys at acquired/candidate site(s) - To examine utilities services to be supplied in the parks and investigate current situation of infrastructure development - To investigate current situation of logistics - To examine necessary infrastructure in and around the automotive supplier parks - To examine the output specifications of infrastructure development - To conduct cost estimate and economic and financial analysis - To investigate the project modality and scheme with PPP - To analyse project risks and task allocation among stakeholders - To formulate a draft master plan and action plans for automotive supplier parks development
Input	< Japanese Side > • Dispatch of experts in areas such as industrial park development, logistics and supply chain analysis, utilities, human resources development, quality control, environmental and social consideration, economic and financial analysis, institutional framework, investment promotion • Training in third countries < Nigerian Side > • Some working level staffs from Policy Planning Department and Industrial Infrastructure Department of NAC
Duration	1 year

APPENDICES

Appendix-1 Federal Ministry of Industry, Trade and Investment (FMITI)

1-1 Organisational Structure

The organizational structure is as follows:

- Trade
- Commercial Law
- Industrial Development
- Weights and Measures
- Investment Promotion
- Finance and Accounts
- Human Resources
- Policy, Planning, Research and Statistics
- Reform Coordination
- Procurement
- General Services

1-2 Mandate of Policy, Planning, Research and Statistics Department

The department related to planning is Policy, Planning, Research and Statistics. This department has the following functions:

- Formulate, coordinate and implement plans, policies, programmes and projects of the ministry
- Research into the internal organization and sectors under the purview of the ministry and process statistical data relating to trade and industry
- Handle inter-ministerial, inter-governmental and international relation matters pertaining to the development of commerce and industrialization of Nigeria
- Monitor and evaluate of plan implementation
- Serve as the secretariat of the tenders boards and procurement planning committee
- Supervise the FEC Trade Zones
- Research into sectors over which the ministry has jurisdiction
- Set and monitor of performance and efficiency targets for the various sub-divisions and staff of the ministry
- Collate and process of manufacturing data relating to the ministry's operations
- Represent the ministry in several inter-ministerial committees
- Manage the ministry's records and information resources
- Liaise with relevant bodies outside the ministry
- Handle issues of the National Approvals Committee on ECOWAS Trade Liberalization Committee
- Prepare and evaluate technical reports and research publications

Appendix-2 National Automotive Council (NAC)

2-1 Functions

The NAC's functions are as follows:

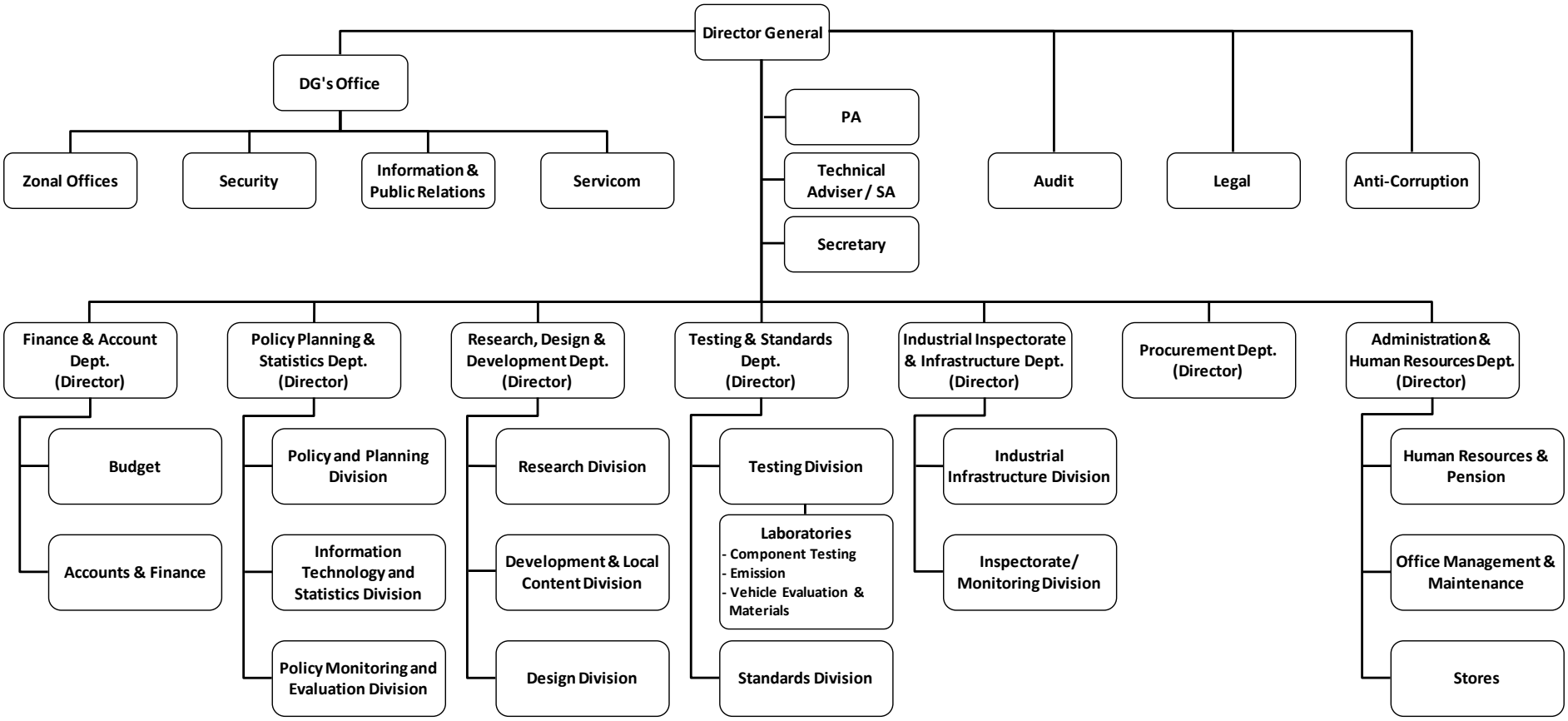
- Regularly study and review the automotive parts/ components development industry in Nigeria
- Evolve a local content programme specifying which component parts are to be continuously deleted from the imported CKDs
- Recommend incentive measures for ensuring compliance with approved local programmes
- Approve and recommend new models of vehicles envisaged for the Nigeria market to ensure model rationalisation
- Carry out inspection and other quality assurance activities in factories, ports and roads in pursuance of other objectives specified above
- Regularly evaluate the pricing structure and quality of the products of the Assembly Plants to ensure international competitiveness
- Forecast the demand and supply patterns for various types of automotive vehicles produced in Nigeria and the basic raw materials requirements
- Liaise with relevant organisations charged with the production of raw materials (such as sheet metal alloy and special steel)
- Regularly review the penalties to be imposed for non-compliance with the guidelines and programmes specified by it
- Perform such other functions as may be assigned it by Government from time to time

2-2 Organisational Structure

Figure AP-1 and Figure AP-2 show the interim organisational structure of NAC and proposed structure after the merger of NAC and CADD.

Source: NAC

Figure AP-1 Interim Organisational Structure of NAC



Source: NAC

Figure AP-2 Proposed Organisational Structure of NADDC

Appendix-3 Raw Materials Research and Development Council (RMRDC)

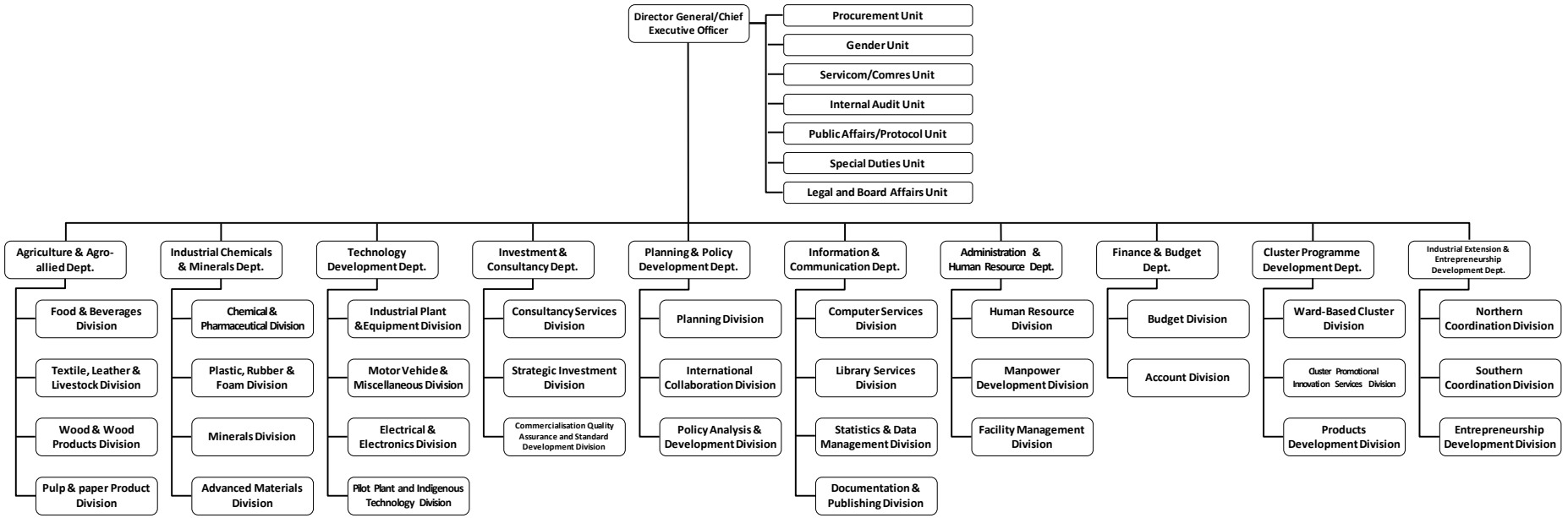
3-1 Functions

The following are the RMRDC's mandates:

- Draw up policy guidelines and action programmes on raw materials acquisition, exploitation and development
- Review from time to time, raw materials resources availability and utilization, with a view to advising the Federal Government on the strategic implication of depletion, conservation or stock-piling of such resources
- Advise on adaptation of machinery and process for raw materials utilization
- Encourage publicity of research findings and other information relevant to local sourcing of industries
- Encourage the growth of in-plant research and development capabilities
- Advise on and device award systems for industries that achieve any break-through or make innovations and inventions
- Organize workshops, symposia and seminars designed to enlighten people on new developments and solutions discovered from time to time, and
- Consider and advise on special research grants for specific objectives and any other issues capable of enhancing the objectives of the Council

3-2 Organisational Structure

Figure AP-3 shows the organizational structure of RMRDC.



Source: RMRDC

Figure AP-3 Organisational Structure of RMRDC

Appendix-4 National Agency for Science and Engineering Infrastructure (NASENI)

The mandate of NASENI is specifically in the area of capital goods research, production and reverse engineering with respect to the following six broad areas:

- Engineering materials (notably irons, steel, non-ferrous metal and alloys, plastics, glass, ceramics, polymer, electronics and nanotechnology)
- Industrial and analytic chemical materials including industrial gases
- Scientific equipment and components for education, research and industry including measuring instruments, electronic components, communication equipment and computers
- Engineering equipment (mechanical, hydraulic, pneumatic, electrical and electronic)
- Engineering designs and standardization
- Power equipment (generation, transmission, distribution, prime movers)

Appendix-5 Industrial Training Fund (ITF)

5-1 Functions

The functions of ITS are as follows:

- To provide training for skills in management, technical and entrepreneurial development in both public and private sectors of the economy
- To set and monitor training standards in all sectors or the economy
- To evaluate and certify vocational skills acquired by apprentices, craftsman and technicians in collaboration with relevant organisations

5-2 Organisational Structure

Departments related to the human resources development are Business Training Development, Technical Vocational and Skills Training Development Department and Research & Curriculum Development Department. Functions of those departments are as follows:

Business Training Development

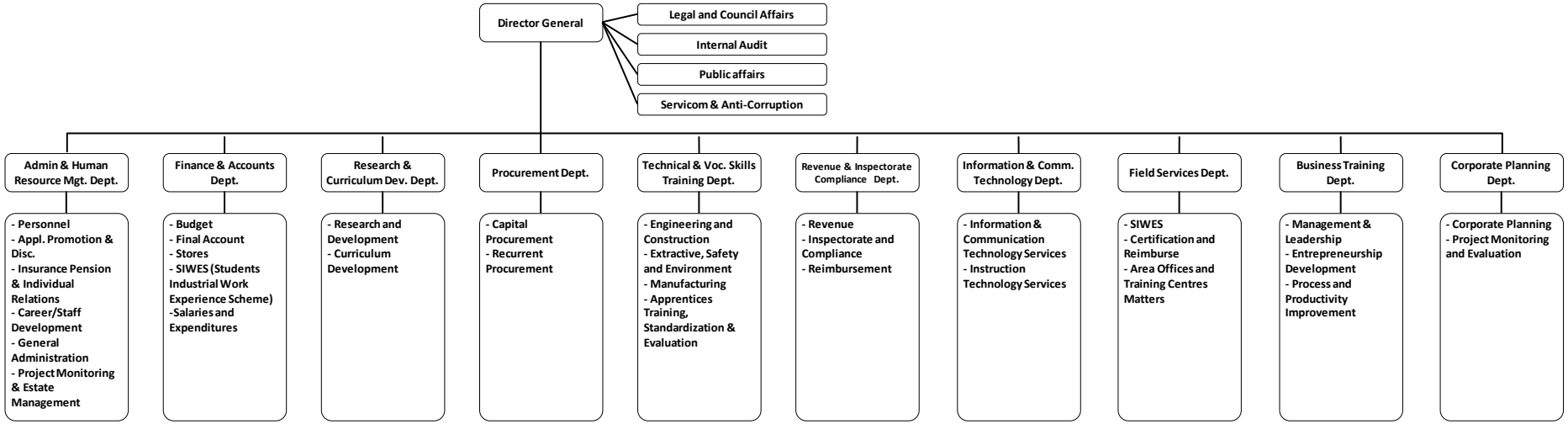
- Set standards for human resource development practice in both private and public sectors of the National economy
- Conduct specialised in-company training programmes for improving productivity and efficiency in industry and commerce
- Provide pedagogy (instructional) training facilities and materials for enhancing quality of training packages and delivery
- Advise organizations on human resources development, particularly in business and commercial services
- Build data bank on training activities of the Department
- Design and produce Fund's annual manpower development brochure
- Produce and allocate course bags for Fund's scheduled training programmes
- Undertake any other function as may be assigned by the Director-General

Technical Vocational and Skills Training Development Department

- Design and execute skills acquisition training programmes required in commerce and industry
- Develop job specifications in various skill areas
- Conduct skills improvement training in areas of needs in commerce and industry
- Supervise, evaluate and monitor apprenticeship schemes in collaboration with relevant agencies
- Prepare periodic and annual reports on the activities of the department
- Establish national standard for all vocational skills training
- Test and certify graduates of approved vocational training centres
- Undertake any other function as may be assigned by the Director-General

Research & Curriculum Development Department

- Generate and maintain directory of employers
- Conduct empirical studies on manpower and skills requirements in specific sectors of the national economy
- Identify training needs of organisations, including diagnostic studies
- Review and assess the impact of specific training programmes of the Fund
- Manage and maintain Fund's library services
- Develop specialised programmes for client organizations resulting from diagnosis
- Design, develop and implement programmes to meet training needs of clients
- Evaluate, review and update training programmes regularly to meet the needs of clients
- Organise biennial national training conferences
- Prepare periodic and annual reports on activities of the Department
- Undertake any function as may be assigned from time to time by the Director-General.



Source: ITF

Figure AP-4 Organisational Structure of ITF Headquarters

Appendix-6: Training Programmes and Courses provided in ISTC Ikeja

6-1 Scheduled Training Programmes in ISTC Ikeja (2015)

No.	Course/Workshop Title	Course Fee	Duration
1	Fire Safety & Prevention Workshop	N35,000	1st Run: 4 days 2nd Run: 3 days
2	Operation & Maintenance of Steam Boiler	N40,000	1st Run: 3 days 2nd Run: 3 days
3	Advanced Record & Information Management Course	N40,000	1st Run: 3 days 2nd Run: 3 days
4	Pneumatic and Hydraulic Maintenance Course	N40,000	3 days
5	Operators Performance Improvement Course	N30,000	1st Run: 3 days 2nd Run: 3 days
6	Electrical Control Panel Maintenance Course	N40,000	3 days
7	Industrial Electrical Instrumentation Workshop	N50,000	4 days
8	Information Technology-based Auditing Techniques Workshop	N60,000	3 days
9	Application of welding in Maintenance Works Course	N40,000	5 days
10	Industrial Electrical Installation and Maintenance	N50,000	7th - 9th October
11	Basic Auto-Maintenance Course for Corporate Drivers	N30,000	3 days
12	Industrial Air Condition & Refrigeration Workshop	N40,000	3 days

Source: ISTC Ikeja, ITF

6-2 Short Term Technical/Engineering Programs (Modular) in ISTC Ikeja (2015)

No.	Section		Course	Course Fee
1	Automotive Section	Basic Auto Diagnostics (Mechatronics)	2 months	N75,000
		Auto Key Programming	2 months	N65,000
		Vehicle Service and Maintenance	3 months	N100,000
		Basic Wheel Balancing and Alignment	2 months	N50,000
2	Electrical Section	Domestic Electrical Installation & Maintenance	3 months	N70,000
		Industrial Electrical Installation & Maintenance	3 months	N90,000
		Rewinding of Electrical Motors	3 months	N120,000
3	Mechanical Section	Industrial Turning Operation	3 months	N150,000
		Bearing Maintenance	3 months	N100,000
		Gear Milling Course	3 months	N120,000
		Maintenance of Mechanical Drives	3 months	N100,000
		Basic Electro-Pneumatics and Hydraulic Course	2 months	N250,000
		Plumbing and Pipe Fitting Mechanical Course	2 months	N200,000
4	Welding & Metal Fabrication	MIG / MAG Welding	3 months	N140,000
		Argon(TIG) Welding (6G)	2 months	N195,000
		Oxy-Fuel Metal Cutting	1 months	N70,000
		Welding Technology Workshop (3G & 4G with SMAW)	3 months	N120,000
		Welding Technology Workshop (6G with SMAW)	3 months	N150,000
		Sheet Metal Fabrication Course	3 months	N90,000
5	Refrigeration & Air-Condition	Domestic Refrigeration and Air-Condition	3 months	N60,000
		Industrial Refrigeration and Air-Condition	3 months	N80,000
		Refrigeration & Air-Conditioning Electronic Panel Maintenance	2 months	N70,000
6	ICT	Computer Desktop Publishing	2 months	N45,000
		Mobile Network Performance Analysis and Management	3 months	N120,000
		Computer Hardware Maintenance	3 months	N60,000
		Local Area Network Installation & Maintenance	3 months	N50,000
		Web-Based Programming & Application	2 months	N60,000
		Laptop Maintenance	3 months	N50,000
		Digital & Satellite Television Installation & Maintenance	3 months	N60,000
7	Instrumentation & Process Control	PLC Application and Programming	2 months	N90,000
		Industrial Instrumentation & Automation	2 months	N120,000
		Auto CAD (Electrical) Design	1 months	N40,000

Source: ISTC Ikeja, ITF

Appendix-7: List of Local Content Manufacturers by State

State	No.	Company Name	Products
Lagos	1	Apex Ind. Nig. Ltd.	Brake pads and linings
	2	Associated Battery Mfg. Nig. Ltd.	Batteries
	3	Auto Components Ltd.	Fuel filters, aluminium die cast components
	4	Berger Paints Nig. Plc	Paints, thinners and chemicals
	5	Cars Components Ind. Ltd.	Car safety seat belts
	6	Chemical and Allied Products Plc	Paints
	7	Dulux Chemical Ind. Ltd.	Paints
	8	Dunlop Nig. Plc	Tyres
	9	DVC Ltd.	Sealing compounds, cavity wax, adhesives
	10	Filterland Industries Ltd.	Filters
	11	Fitchtel & Sachs (W.A.) Ltd.	Clutch disk, pressure plate
	12	General Paints Ltd.	Paints
	13	Geoelis Cables Ltd.	Automotive cables
	14	Grand Foundry & Engineering Works Ltd.	Fly wheel, brake disks, brake drum, cylinder liners, manifolds
	15	Manufacturing and Tech Co. Nig. Ltd.	Trailer axis and trailers
	16	Monaplex Industries Nig. Ltd.	Automotive Filters
	17	PCI Paints Ltd.	Paints, body filters
	18	Peggy Chemical Industries Ltd.	Paints, thinners and chemicals
	19	Star Auto Industries Ltd.	Brake pads and linings
	20	Vono Products Ltd.	Vehicle seats
	21	Zodiac Industries Nig. Ltd.	Filters, bicycle tyres, leaf springs
Anambra	1	Akebono Ind. Coy Nig. Ltd.	Motorcycle engine block, brake pads/linings
	2	Cutix Plc	Vehicle cables
	3	Godwin Kris Industries Ltd.	Rubber parts, tubes
	4	Greatland Industries Ltd.	Roller chain, timing chain, key chain
	5	Haroside Nigeria Ltd.	U-bolts, leaf springs, brake shoes
	6	Isaho Industries Ltd.	Pistons
	7	John Ray Ltd.	Auto plastic products, nuts and bolts, washers
	8	John White Industries Ltd.	Fan belt
	9	Louis Carter Group Ltd.	Plastic parts
	10	OCE Filter Manufacturing Co. Ltd.	Oil, fuel and air filters, exhaust systems
	11	Union Autoparts Mfg. Co. Ltd.	Batteries, brake pads/linings, clutch linings, brake shoes and clutch fibres, plastic parts, fan blades, trafficators, rear lights, wheel cover, etc.
	12	Uru Chemical Industries Ltd.	Throttle, clutch and brake cables
	13	Bendusco International Agency Ltd.	Motorcycle gaskets
	14	Fenok Ind. Ltd.	Brake pads and linings
	15	Iju Industries Ltd.	Rubber parts
	16	Pemep Auto Ind. Ltd.	Motorcycle carrier, brake pedal, chain cover and exhaust
Kaduna	1	Automotive Components Ind., Ltd.	Car seats
	2	Chucks Metal Ltd.	Metal inserts for seats
	3	Northern Cable Company Ltd.	Wire harness
	4	Shempate Ltd.	Seat Frames, exhaust Pipes
	5	Ugochukwu Chemical Industries Ltd.	Seat foams
Oyo	1	Ferodo Nig. Ltd.	Brake pads and linings
	2	Isoglass Industries Nig. Ltd.	Windscreen, side glasses
	3	Triplex Safety Glass Nig. Ltd.	Laminated windscreens, side glasses
	4	Universal Rubber Co. Ltd.	Rubber parts
	5	West African Batteries Ltd.	Batteries
Abia	1	Chieme Motors Nig. Ltd.	Fuel filters, fan blade, radiator grills, wheel cover
	2	Nibeltex Industries Nig. Ltd.	Upholstery furnishings

State	No.	Company Name	Products
	3	Nocelg Fiberglass Ltd.	Fiberglass components
River	1	Michelin Nig. Ltd.	Tyres
	2	Nigeria Engineering Works Ltd.	Pressed parts, A/C evaporators, heaters, blowers, condensers
	3	Quality Radiators Ltd.	Radiators
Kano	1	MSP	Engine seating, protector, bumper, brackets, etc.
	2	Polyplast Ltd.	Seat covers, interior trimmings
Plateau	1	Makeri Smelting Co. Ltd.	Balance weights, solder bar and wire
	2	Northern Nigeria Fiber Ltd.	Carpets
Enugu	1	Ferdinand Ind. Nig. Ltd.	Oil, fuel and air filters
	2	General Tyre and Tubes Co., Ltd.	Motorcycle tyres and tubes
Kwara	1	Kay Plastics Nig. Ltd.	Plastic mats
Edo	1	Udofe Metal Ind. Ltd.	Pressed parts

Source: NAC

Appendix-8: List of Service Workshops Certified by Automobile Manufacturers

Brand	Service shops	Location
Mercedes-Benz	Barbedos Cars Ltd.	Kaduna, Abuja
	Tetralog Nigeria Ltd.	Enugu
	Globe Motors Holdings (Nig.) Ltd.	Lagos, Abuja
	Weststar Associates Ltd.	Abuja
	M-B Automobile Services Ltd.	Lagos
	Skymit Motors	Lagos
	Sunny Motors	Lagos, Abuja
TOYOTA	Elizade Nigeria Ltd	Lagos, Abuja, Ogba, Port Harcourt
	R.T. Briscoe (NIG.) Plc	Lagos, Abuja, Port Harcourt
	Mandilas Ent. Limited	Lagos, Abuja, Ibadan, Kaduna, Port Harcourt
	Globe Motors Ltd.	Lagos, Port Harcourt
	Omoregie Motors	Lagos
	Metropolitan Motors	Lagos
HONDA	Service company names are not indicated	2 service shops in Lagos 1 service shop in Enugu 1 service shop in Ibadan 2 service shops in River State 1service shop in Abuja 1service shop in Kano
PEUGEOT	Auto Star Gallery Limited	Enugu
	Capital City Automobile Limited	Enugu
	Unibright Motors Limited	Benin
	ASD Motors Nigeria Limited	Abuja, Kaduna
	A.C. Okocha Motors Limited	Abuja
	Abadat Motors	Abuja
	XS Auto Centre	Abuja
	Abuja Leasing Company	Abuja
	Kaura Motors Nigeria Limited	Kaduna
	Madunka Motors Limited	Kaduna
	Paki International Motors Limited	Kano
	Germaine Auto Center	Lagos
	Road Truckers Nigeria Limited	Lagos
	SCOA Motors	Lagos
	CFAO Motors Nigeria Limited	Lagos
	ASAO Motors Nigeria Limited	Lagos
	Oluwalogbon Motors Limited	Lagos
	A.J. Adisco Motors Nigeria Limited	Ilorin
	Mingi Motors Nigeria Limited	Port Harcourt
Hyundai	Service company names are not indicated	1 service shop in Sokoto 1 service shop in Kano 1 service shop in Abuja 1 service shops in Ibadan 7service shops in Lagos 1service shop in Enugu 1service shop in Owerri 1service shop in Port Harcourt 1service shop in Calabar

Source: Compiled by the Survey Team

Appendix-9: List of Active FTZs and Zones Awaiting Approval

No.	Name	Location	Sponsor/ Developer	Status
Active Zones				
1	Calabar Free Trade Zone (CFTZ)	Cross River	Federal Government	Operational
2	Kano Free Trade Zone (KFTZ)	Kano	Federal Government	Operational
3	Tinapa Free Zone & Resort	Cross River	State Government/Private	Operational
4	Snake Island Int. Free Zone	Lagos	Nigerdock Plc	Operational
5	Maigatari Border Free Zone	Jigawa	State Government	Operational
6	Ladol Logistics Free Zone	Lagos	GRML	Operational
7	Airline Services EPZ	Lagos	Private	Operational
8	ALSCON EPZ	Akwa Ibom	Federal Government/Private	Operational
9	Sebore Farms EPZ	Adamawa	Private	Operational
10	Ogun Guandong FT Zone	Ogun	State Government/Private	Operational
11	Lekki Free Zone	Lagos	State Government	Operational
12	Abuja Tech. Village Free Zone	FCT	FCT	Under Construction
13	Ibom Science & Tech. FZ	Akwa Ibom	State Government	Operational
14	Lagos Free Trade Zone	Lagos	Eurochem technology Singapore	Operational
15	Olokola Free Trade Zone	Ondo & Ogun	State Government/Private	Operational
16	Living Spring Free Zone	Osun	State Government	Under Construction
17	Brass LNG Free Zone	Bayelsa	Federal Government/Private	Dev. yet to commence
18	Banki Border Free Zone	Borno	State Government	The Sponsor yet to be committed
19	Oils Integrated Logistics Services Free Zone	Lagos	Private Oil Field Industry Support Service Ltd	Operational License Suspended
20	Specialized Railway Industrial FTZ	Ogun	State Government	Dev. yet to commence
21	Imo Guangdong FTZ	Imo	State Government	Dev. yet to commence
22	Kwara Free Zone	Kwara	State Government	Physical Dev. Yet to commence
23	Koko Free Trade Zone	Delta	State Government	Physical Dev. Yet to commence
24	Oluyole Free Zone	Oyo	State Government	Physical Dev yet to Commence
25	Ibom Industrial Free Zone	Akwa Ibom	State Government	Physical Dev. yet to commence
26	Badagry Creek Integrated Park	Lagos	Kaztec Engineering	Under Construction
27	Ogindigbe Gas Revolution Industrial Park (GRIP)	Delta	NEPZA/NNPC/Delta	Under Construction
28	Nigeria Aviation Handling Company (NAHCO)	Lagos	NAHCO	Under Construction
29	Nigeria International Commerce city	Lagos	Eko Atlantic FZ ltd	Under Construction
30	Ogogoro Industrial Park	Lagos	Digisteel	Under Construction
31	Centenary City	Abuja	Centenary City Plc	Under Construction
Awaiting approval				
1	Ossiomo Free Trade Zone		Ossiomo Investment Ltd	At the Presidency
2	Enugu Power And Industrial Development Free Zone	Enugu	State Government/ Oil Data Consulting Company Ltd	At the Presidency
3	Warri Industrial Business Park	Delta	State Government/ ARCO Petrochemical Engineering Company Limited	At the Ministry
4	Kogi Free Zone	Kogi	State Government	At the Ministry
5	Baklang Free Zone		Baklang Offshore Support Services Conglomerate (BOSS)	Appraisal On-going. Site inspection carried out
6	Madewell & Textile INC. Free Zone		Madewell Garments INC	At the Ministry
7	Eko Atlantic City Free Zone	Lagos	Eko Atlantic FZ Ltd	At the Ministry
8	Ogidigbe Free Zone		NEPZA	Appraisal On-going. Site inspection carried out
9	Airport Free Zones	Lagos/Port-Harcourt/ Kano/Enugu	NEPZA/ Federal Ministry of Aviation	Appraisal On-going. Site inspection carried out
10	Sahara offshore Logistics Base Free Zone		Sahara energy Resources	Appraisal On-going. Site inspection carried out

Source: NEPZA

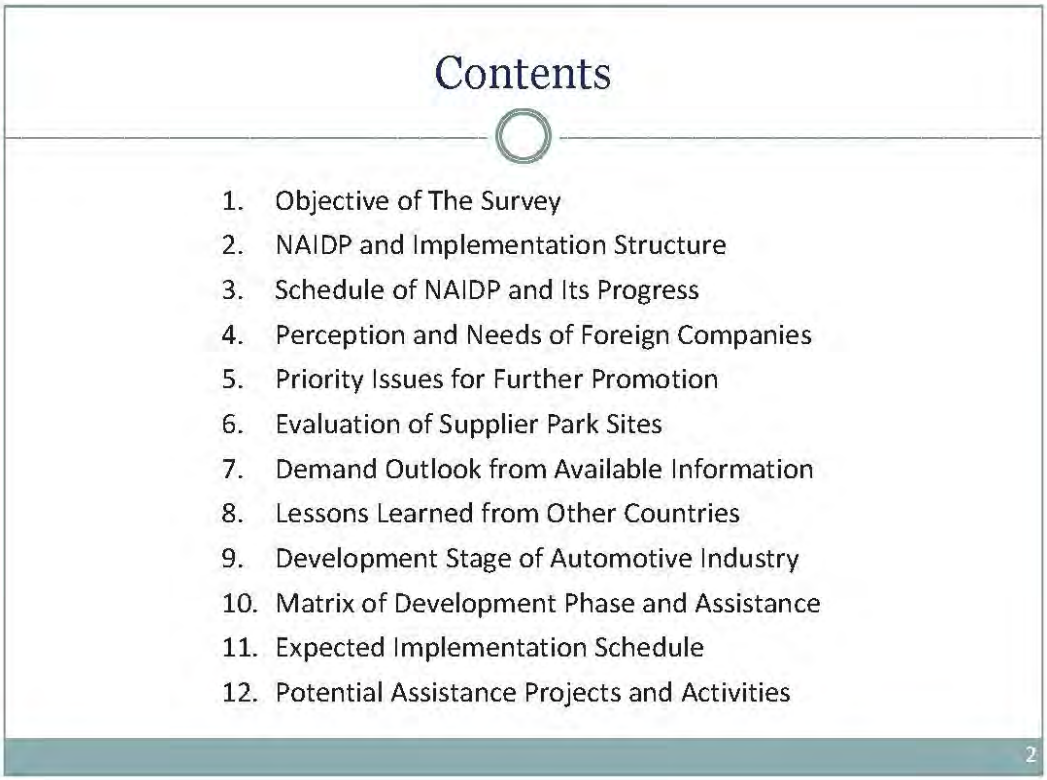
Appendix-10: Vehicle Safety Standards for Fleet Operators

No.	Category	Standard
1	Load Compartment	All vehicles for inter-state journeys must have provision for load compartments.
2	Windscreen wiping and washing systems	These shall be electrical or mechanical and shall be maintained in proper working condition.
3	Braking Systems	This standard (NRTR 2004, Section 54 (1) (6)) specifies requirements for vehicles to be equipped with hydraulic and electric brake systems and associated parking hand brake systems to ensure effective performance in all circumstances.
4	Motor Vehicle Brake fluid	This is to be regularly checked and changed with high premium fluid.
5	Steering Systems	This standard requires routine grease-feeding of all the nipples to ensure efficient performance of the steering assembly (NRTR 2004, Section 60 (1)).
6	Lamps, reflective devices, and associated equipment	This standard (NRTR 04, Section 56 (1), (2), & (3) (a) (p)), specifies requirement for original and replacement lamps, reflective devices and associated equipment. Its purpose is to prevent occurrence of Road Traffic Crash and provide adequate illumination of the roadway and also enhance visibility of motor vehicles on the roads, so that their presence is obvious and their signals understood, both in day light and in poor weather condition or at night.
7	Rear / Side view Mirrors	This standard (NRTR 04, Section 58 (1) & (2)), specifies requirements for the performance and location of inside and outside rear-view mirrors.
8	Power Operated window, partition and roof panel systems	This standard specifies requirements for power operated window, partition, and roof panel systems.
9	Tyres	This standard (NRTR 2004, section 53, (1), (2), & (3)) establishes performance and requirements for tyres to be used on multi-purpose passenger vehicles, trucks, buses and articulated vehicles. The tyres should have minimum tread depth with the manufacturer's recommended tyre pressure. Use of discarded tyres popularly called "Tokunbo" is prohibited.
10	Accelerator Systems	Ensure vehicle's throttle is in idle position when the driver removes his foot from the accelerator control or in the event of a severance or disconnection in the accelerator control system.
11	Warning Devices	This standard "(NRTR 04, Section 75 (a) & (b)" establishes performance requirements of warning devices.
12	Brake Light Systems	This standard requirement is evident when brake lights are illuminated whenever brakes are applied.
13	Occupant Protection in Interior impact	Provision of head impact protection for occupants. Passenger cars, commercial vehicles, trucks and buses must meet requirements for instrument panels, seat back, sun visors and arm rest (NRTR 04, Section 36 (1) (a) (d) Passive restraints such as Airbags, Seat Belts are to be encouraged.
14	Head restraints or Head rests	This must correspond with vehicle seats and occupants sitting position so as to reduce the propensity and severity of neck and or spinal cord injuries.
15	Impact protection for driver from steering control system	The standard should ensure prevention of chest, neck and facial injuries by providing steering systems that yield forward, cushioning the impact on drivers chest by absorbing much of the impact energy in front end crashes.
16	Glazing Materials	The use of the right materials that reduce blustery effect in accident situation, in order to minimize injuries to victims.
17	Door locks and door retention components	Side door locks, side door retention, hinge and other supporting means must be firmly operational to minimize the likelihood of occupants being thrown from the vehicle as a result of sudden impact.
18	Fire Detection and Suppression System	"(NRTR 04, Section 53 (6) & (7)" The vehicles must have the approved fire extinguishers and comply with provisions of the law on fire prevention.

Note: This table does not include the standards on "Bus Emergency Exits", "Bus Interior, and "Bus Exterior".

Source: National Road Traffic Regulation 2004

Appendix-11: Presentation Materials of Workshop

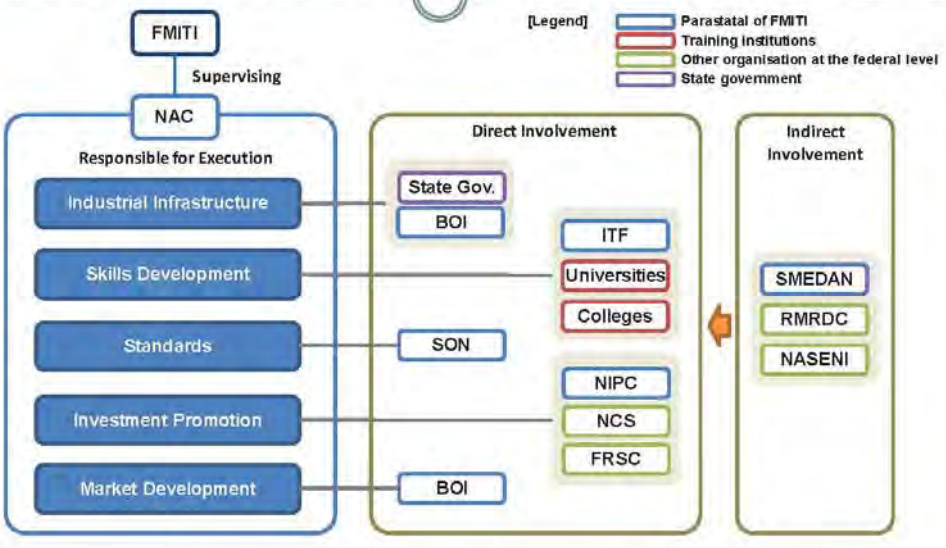


1. Objective of The Survey

- To analyse the current issues on the development of the automotive industry in Nigeria, policy and strategy, institutional framework and progress of the automotive industry development
- To sort out political and technical issues on the promotion of domestic production in Nigeria and a request for cooperation by the Government of Japan
- To analyse and make suggestions on the direction of Japan' cooperation in the future and potential assistance programmes

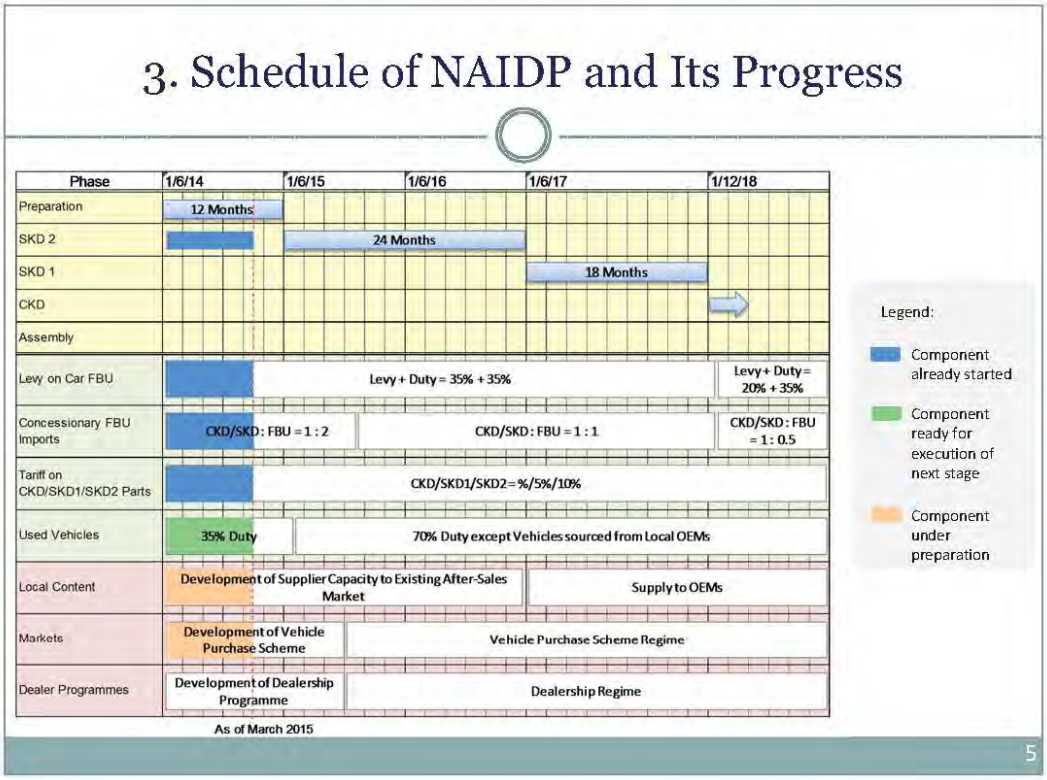
3

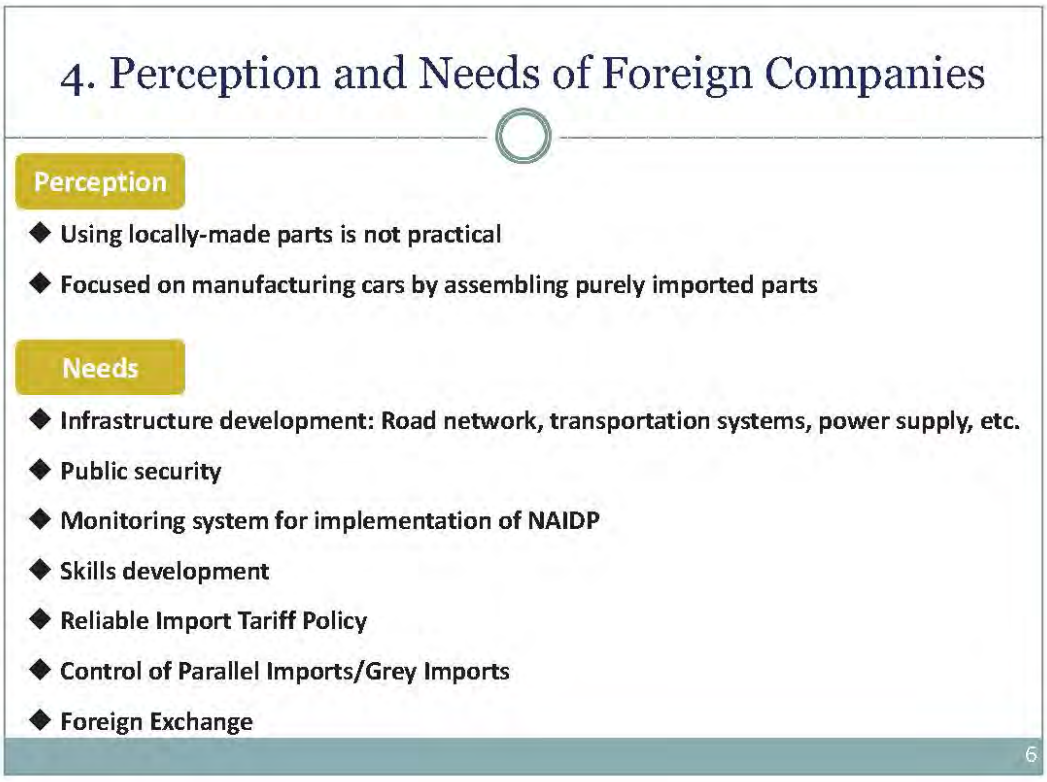
2. NAIDP and Implementation Structure

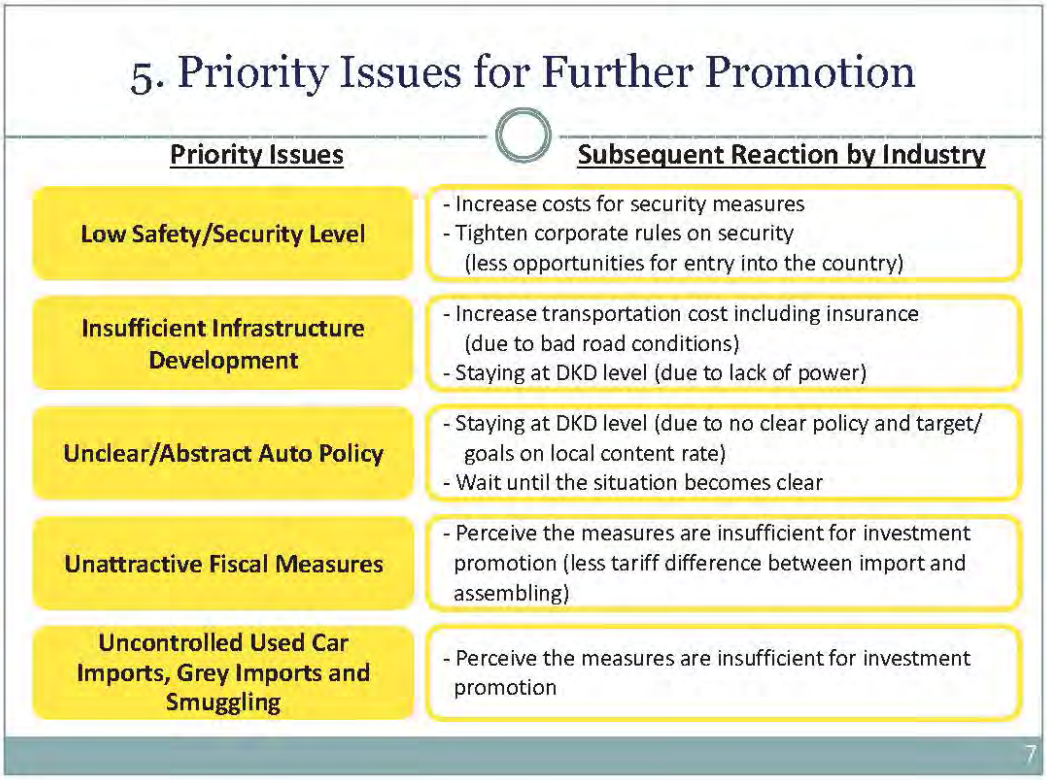


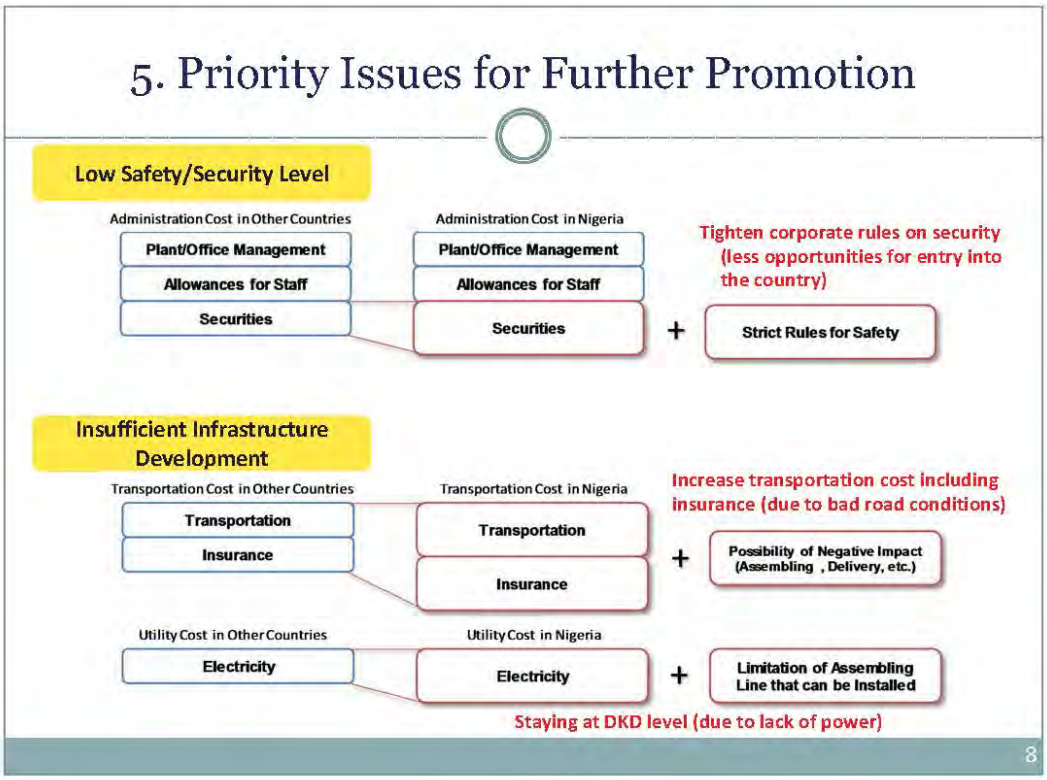
Note: Please refer to Slide No. 45 for the full name of the related organisations

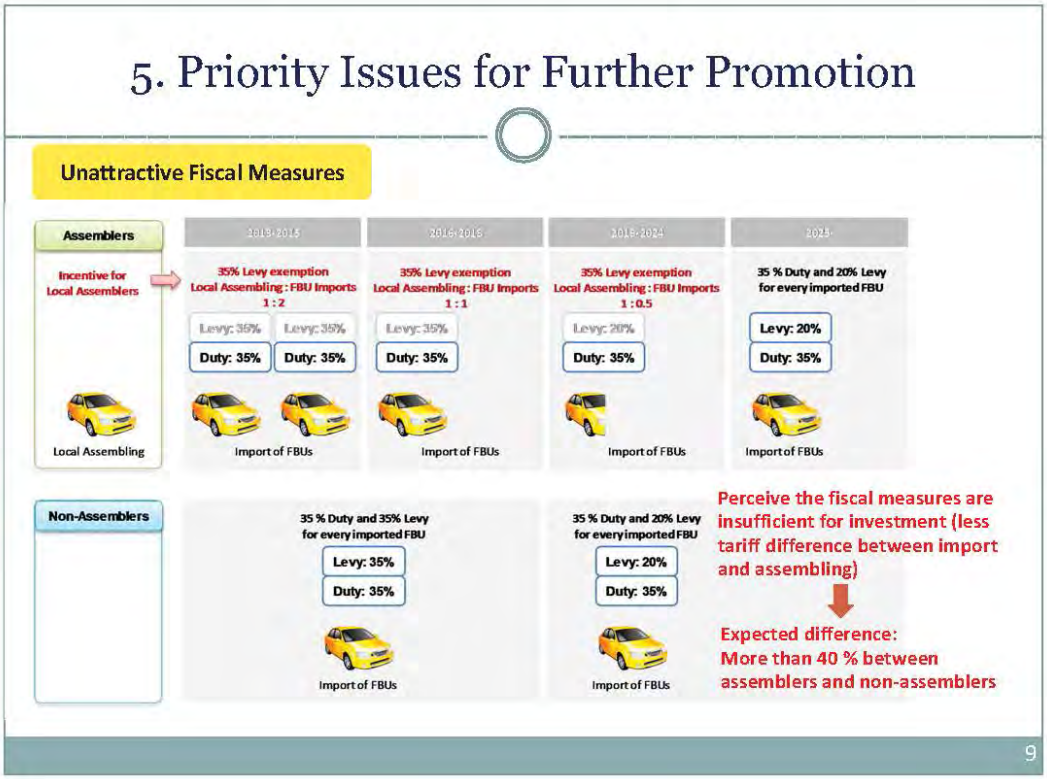
4

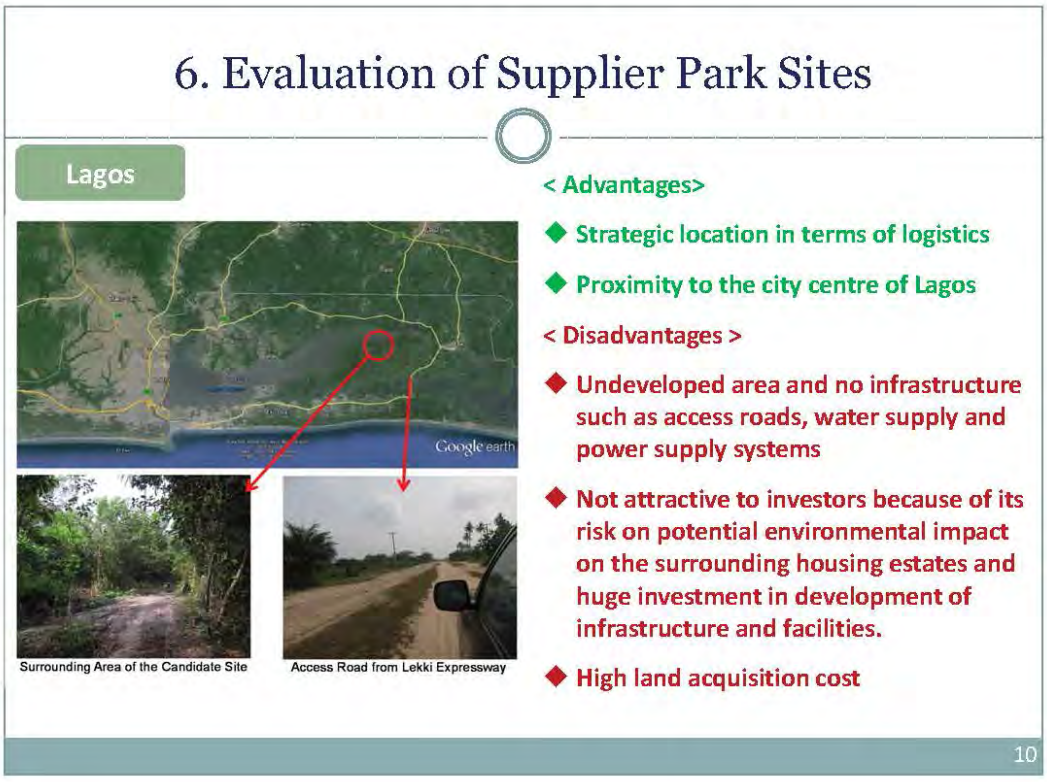

3. Schedule of NAIDP and Its Progress
Phase
1/6/14
1/6/15
1/6/16
1/6/17
1/12/18
Preparation
12 Months
SKD 2
24 Months
SKD 1
18 Months
CKD
Assembly
Levy on Car FBU
Levy + Duty = 35% + 35%
Levy + Duty = 20% + 35%
Concessionary FBU Imports
CKD/SKD: FBU = 1 : 2
CKD/SKD: FBU = 1 : 1
CKD/SKD: FBU = 1 : 0.5
Tariff on CKD/SKD1/SKD2 Parts
CKD/SKD1/SKD2 = %/5%/10%
Used Vehicles
35% Duty
70% Duty except Vehicles sourced from Local OEMs
Local Content
Development of Supplier Capacity to Existing After-Sales Market
Supply to OEMs
Markets
Development of Vehicle Purchase Scheme
Vehicle Purchase Scheme Regime
Dealer Programmes
Development of Dealership Programme
Dealership Regime
As of March 2015
Legend:
Component already started
Component ready for execution of next stage
Component under preparation
5


4. Perception and Needs of Foreign Companies
Perception
Using locally-made parts is not practical
Focused on manufacturing cars by assembling purely imported parts
Needs
Infrastructure development: Road network, transportation systems, power supply, etc.
Public security
Monitoring system for implementation of NAIDP
Skills development
Reliable Import Tariff Policy
Control of Parallel Imports/Grey Imports
Foreign Exchange
6


5. Priority Issues for Further Promotion
Priority Issues
Subsequent Reaction by Industry
Low Safety/Security Level
- Increase costs for security measures
- Tighten corporate rules on security
(less opportunities for entry into the country)
Insufficient Infrastructure Development
- Increase transportation cost including insurance
(due to bad road conditions)
- Staying at DKD level (due to lack of power)
Unclear/Abstract Auto Policy
- Staying at DKD level (due to no clear policy and target/ goals on local content rate)
- Wait until the situation becomes clear
Unattractive Fiscal Measures
- Perceive the measures are insufficient for investment promotion (less tariff difference between import and assembling)
Uncontrolled Used Car Imports, Grey Imports and Smuggling
- Perceive the measures are insufficient for investment promotion
7


5. Priority Issues for Further Promotion
Low Safety/Security Level
Administration Cost in Other Countries
Plant/Office Management
Allowances for Staff
Securities
Administration Cost in Nigeria
Plant/Office Management
Allowances for Staff
Securities
+
Strict Rules for Safety
Tighten corporate rules on security (less opportunities for entry into the country)
Insufficient Infrastructure Development
Transportation Cost in Other Countries
Transportation
Insurance
Transportation Cost in Nigeria
Transportation
Insurance
+
Possibility of Negative Impact (Assembling , Delivery, etc.)
Increase transportation cost including insurance (due to bad road conditions)
Utility Cost in Other Countries
Electricity
Utility Cost in Nigeria
Electricity
+
Limitation of Assembling Line that can be Installed
Staying at DKD level (due to lack of power)
8


5. Priority Issues for Further Promotion
Unattractive Fiscal Measures
Assemblers
Incentive for Local Assemblers
35% Levy exemption Local Assembling : FBU Imports 1 : 2
35% Levy exemption Local Assembling : FBU Imports 1 : 1
35% Levy exemption Local Assembling : FBU Imports 1 : 0.5
35 % Duty and 20% Levy for every imported FBU
Levy: 35%
Duty: 35%
Levy: 20%
Local Assembling
Import of FBUs
Non-Assemblers
35 % Duty and 35% Levy for every imported FBU
35 % Duty and 20% Levy for every imported FBU
Perceive the fiscal measures are insufficient for investment (less tariff difference between import and assembling)
Expected difference: More than 40 % between assemblers and non-assemblers
9


6. Evaluation of Supplier Park Sites
Lagos
< Advantages>
Strategic location in terms of logistics
Proximity to the city centre of Lagos
< Disadvantages >
Undeveloped area and no infrastructure such as access roads, water supply and power supply systems
Not attractive to investors because of its risk on potential environmental impact on the surrounding housing estates and huge investment in development of infrastructure and facilities.
High land acquisition cost
Google earth
Surrounding Area of the Candidate Site
Access Road from Lekki Expressway
10

6. Evaluation of Supplier Park Sites

Osun

Candidate Site (Right Side of the Road)

Eastern End of the Free Zone

< Advantages>

- Strategic location in terms of logistics (railway and new cargo airport)
- Land acquisition process completed

< Disadvantages>

- No infrastructure such as power and water supply, except for the access roads to the site
- Inland area where foreigners may not be able to stay resident due to security reasons.
- Not attractive to investors because the site is far away from Lagos and transportation cost may become high

11

7. Demand Outlook from Available Information

Sales and Vehicles in Use

	2010	2011	2012	2013	Average Annual Increase
Sales of new vehicles (unit) * estimate					
Passenger car	25,000	30,000	40,000	40,000	18%
Commercial vehicle	12,000	15,000	10,000	12,000	4%
Total	37,000	45,000	50,000	52,000	12%
Vehicles in Use (in 1,000 units)					
Passenger car	2,400	2,500	2,600	n.a.	4.1%
Commercial vehicle	690	710	730	n.a.	2.9%
Total	3,090	3,210	3,330	n.a.	3.8%
Percentage of new passenger car sales in increase in vehicles in use	22%	30%	40%	-	-

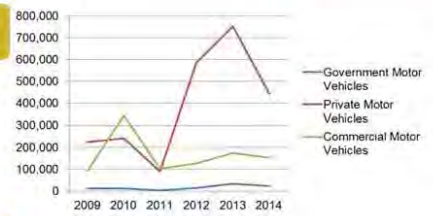
Source: Compiled by the Survey Team based on the statistics of OICA

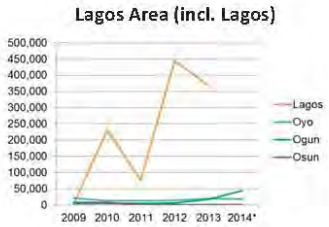
12

7. Demand Outlook from Available Information

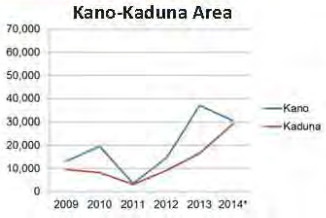
Number Plate Issuance

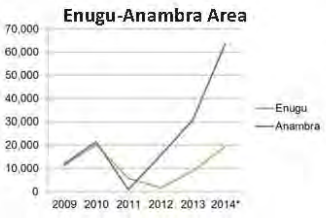
Trend of Issuance by Plate Type

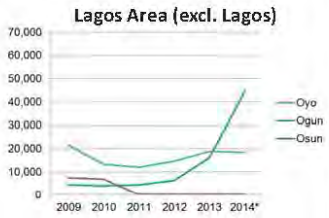




Trend of Issuance in clusters







Source: Compiled by the Survey Team from FRSC's statistics

13

7. Demand Outlook from Available Information

Production Capacity

No.	Plant	Location	Product (s)	Production Capacity (annual)*		Production Volume		
				NAC	RMRDC	2007	2008	2009
1	ANAMMCO	Enugu	Trucks and Buses	5,000	7,500	-	286	432
2	GM Nig Ltd	Lagos	Trucks and Buses	5,000	7,500	67	264	276
3	Innoson Vehicle Mfg. co	Nnewi	Trucks and Buses	10,000	10,000	-	-	-
4	Iron Products Industry	Lagos	Buses, Trucks, Tanker bodies	400	n.a.	n.a.	n.a.	n.a.
5	Leventis Motors Ltd.	Ibadan	Trucks and Buses	5,000	6,516	-	-	-
6	Leyland-Busan Ltd.	Ibadan	Trucks and Buses	5,000	1,200	-	250	1,600
7	NTM Nig Ltd.	Kano	Trucks and Buses	5,000	7,500	-	500	600
8	PAN Nig Ltd.	Kaduna	Cars	25,000	63,000	-	3,250	5,000
9	Proforce Ltd.	-	Armoured Vans, Jeeps	420	n.a.	n.a.	n.a.	n.a.
10	Steyr Nig Ltd.	Bauchi	Trucks and Buses	5,000	8,000	-	1,253	91
11	VON Nig Ltd.	Lagos	Cars	39,000	45,000	-	-	-
12	Zahan Auto Co Nig Ltd.	Lagos	Pick-ups	5,000	n.a.	n.a.	n.a.	n.a.
Total			Cars	64,000	108,000	-	3,250	5,000
			Pick-ups	5,000	n.a.	n.a.	n.a.	n.a.
			Trucks and Buses	40,400	48,216	67	2,553	2,999
			Others	420	n.a.	n.a.	n.a.	n.a.

Source: Compiled by the Survey Team from data of NAC and RMRDC

14

7. Demand Outlook from Available Information

Demand Outlook

- **Weak Naira will raise the consumer price index.**
- **Weak Naira and low crude oil price will reduce the foreign currency reserve of the country.**
- **Fiscal measures of NAIDP (duties and levies) will raise selling prices of new vehicles.**
- **Vehicle prices will increase, but affordable vehicles and financial instruments with low interest rate are not available at the moment.**
- **Low domestic demand for new vehicles will affect the operation level of the OEM plants.**

15

8. Lessons Learned from Other Countries

Japan | Brazil | Thailand | Indonesia | South Africa

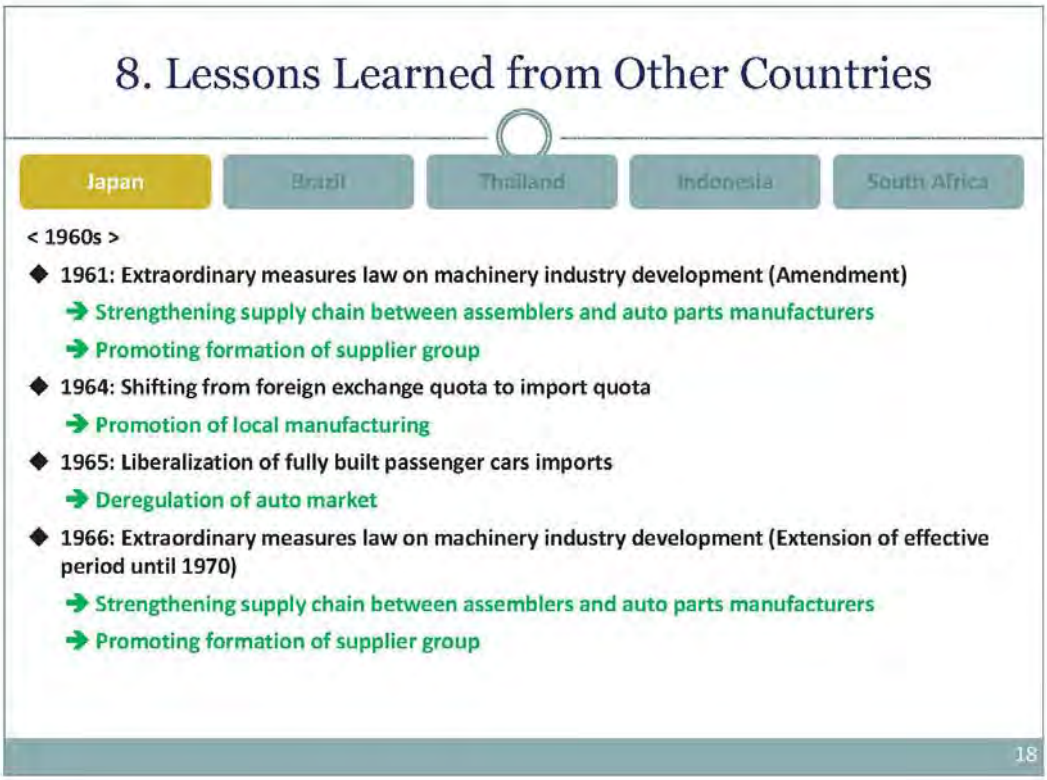
	1910	1920	1930	1940
Direction of Auto policy	Development of Automotive Industry	Promotion of Domestic Production	Controlled Production	Promotion of Independent Production
Establishment of Auto Manufacturers in Japan	1917 Mitsubishi	1924 Ford 1927 GM 1927 Mazda	1933 Nissan 1935 Nissan Diesel 1937 Toyota 1937 Isuzu	1942 Hino 1948 Honda

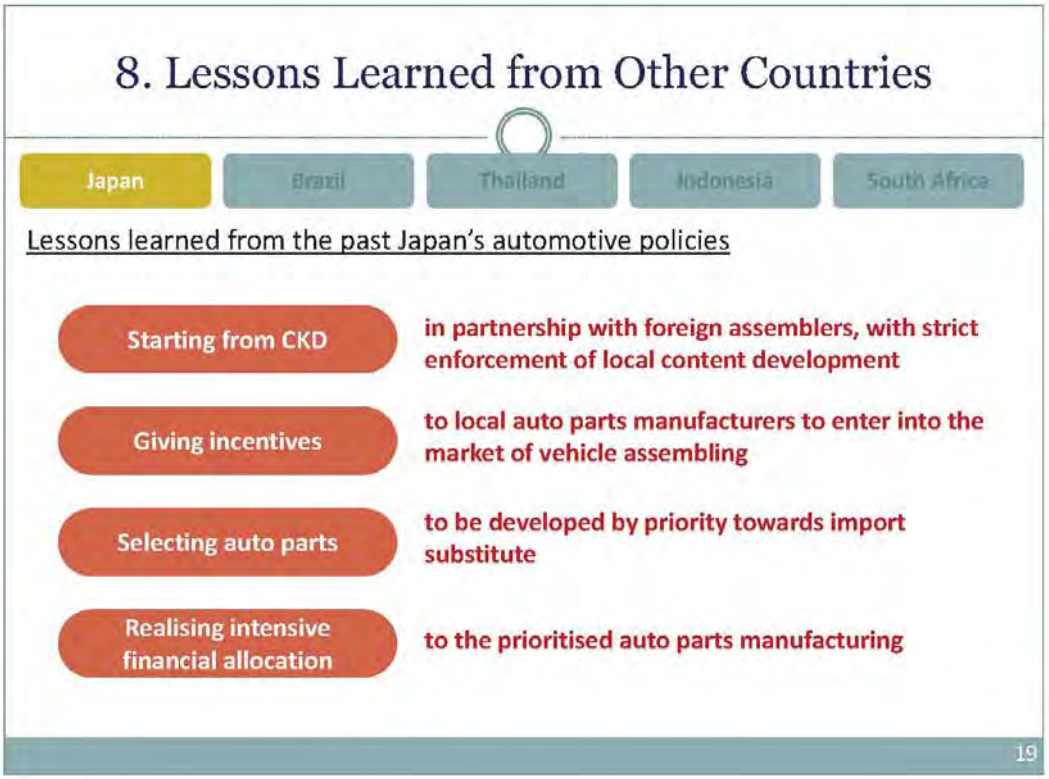
	1945	1950	1960	1965
Direction of Auto policy	Promotion of Independent Production	Promotion and Strengthening of Automotive Industry	Enactment of Law on Installment Sales	Promotion of Auto Parts Industry Growth Promotion of Safety and Environmental Protection Measures
Establishment of Auto Manufacturers in Japan		1951 Daihatsu 1953 Fuji Heavy Industries 1954 Suzuki		

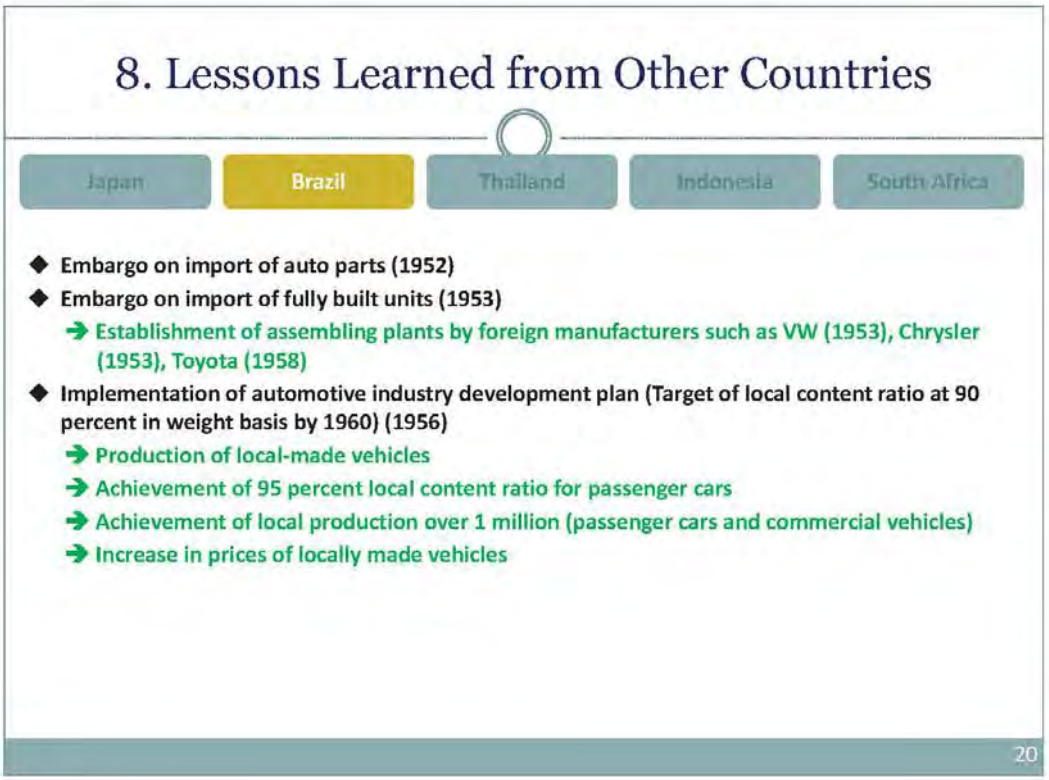
Intensive Intervention by the Government

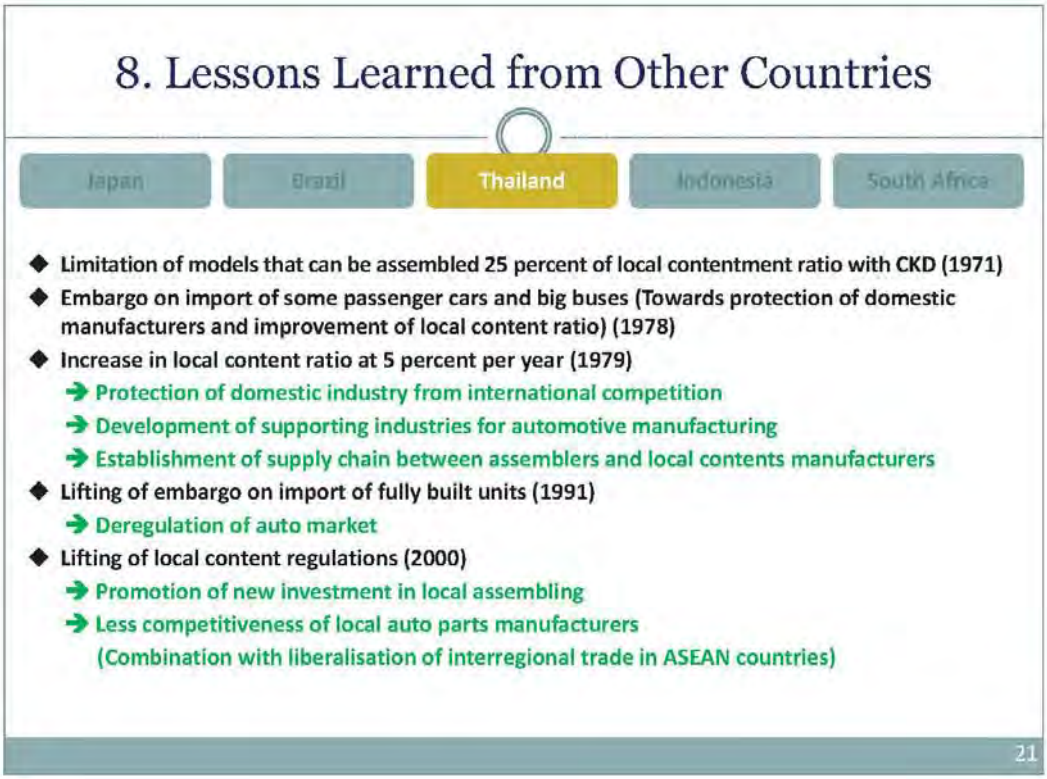
16

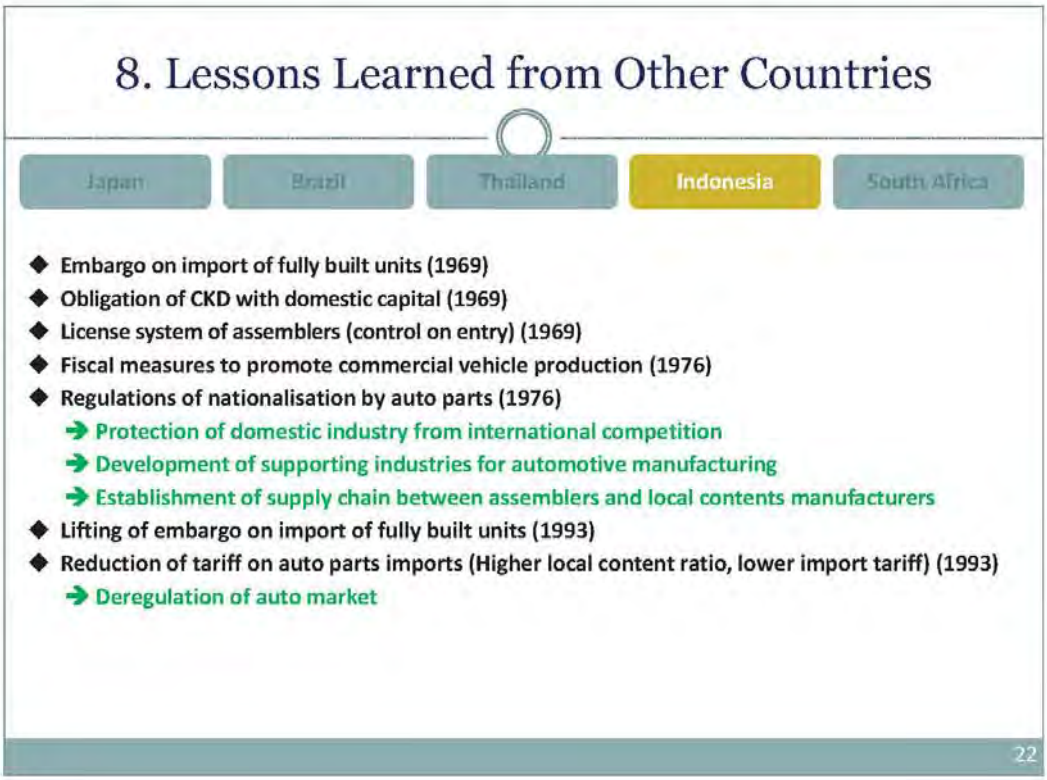

8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
< 1950s >
1952: 7-year plan on import substitute and production increase of passenger cars
165,094 passenger cars in 1960
1952: Policy for foreign investment realty to passenger cars
1952: Policy for partnership and assembly contract with foreign manufacturers on passenger cars
Partnership between - Nissan and Austin, Hino and Renault, Mitsubishi and Kaizer Frazer/Willys, Isuzu and Roots
1952: Policy measures for quality improvement of auto parts industry
Development of auto parts industry
Standardisation of locally manufactured auto parts
1955: Concept of national car production (not adopted as regulations)
Promotion of new assemblers such as Fuji Heavy Industries, Suzuki, Mazda, Honda
1956: Extraordinary measures law on machinery industry development
Upgrading quality of locally manufactured auto parts
Establishment of supply chain between assemblers and auto parts manufacturers
17

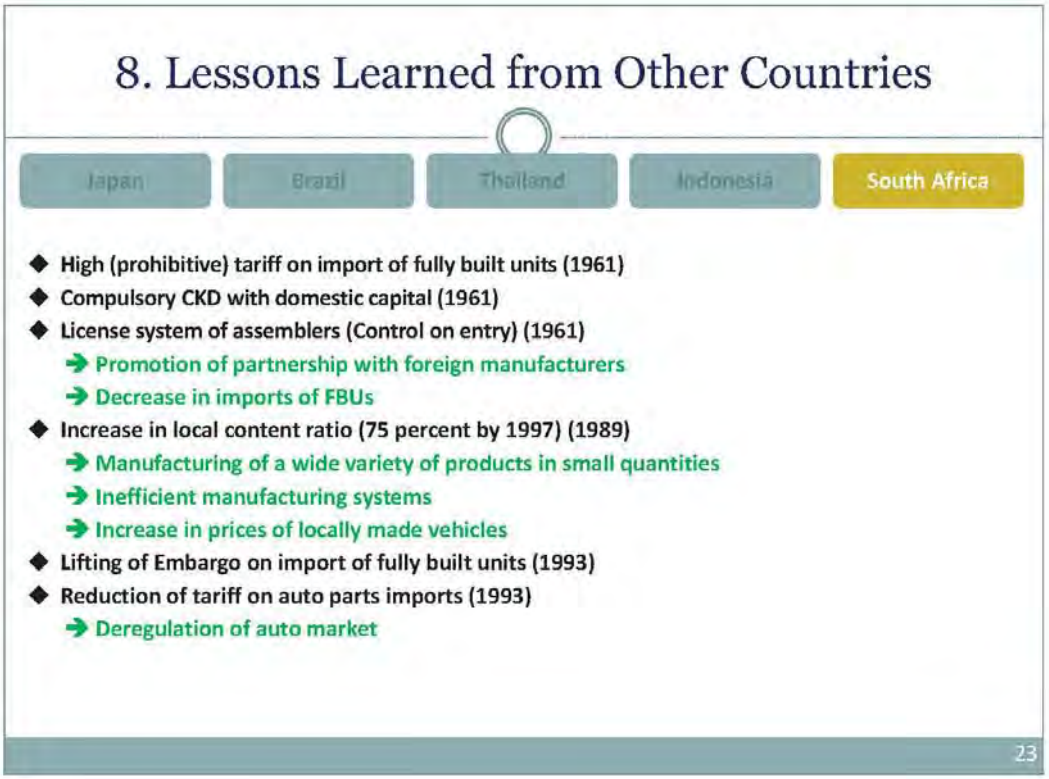

8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
< 1960s >
1961: Extraordinary measures law on machinery industry development (Amendment)
Strengthening supply chain between assemblers and auto parts manufacturers
Promoting formation of supplier group
1964: Shifting from foreign exchange quota to import quota
Promotion of local manufacturing
1965: Liberalization of fully built passenger cars imports
Deregulation of auto market
1966: Extraordinary measures law on machinery industry development (Extension of effective period until 1970)
Strengthening supply chain between assemblers and auto parts manufacturers
Promoting formation of supplier group
18

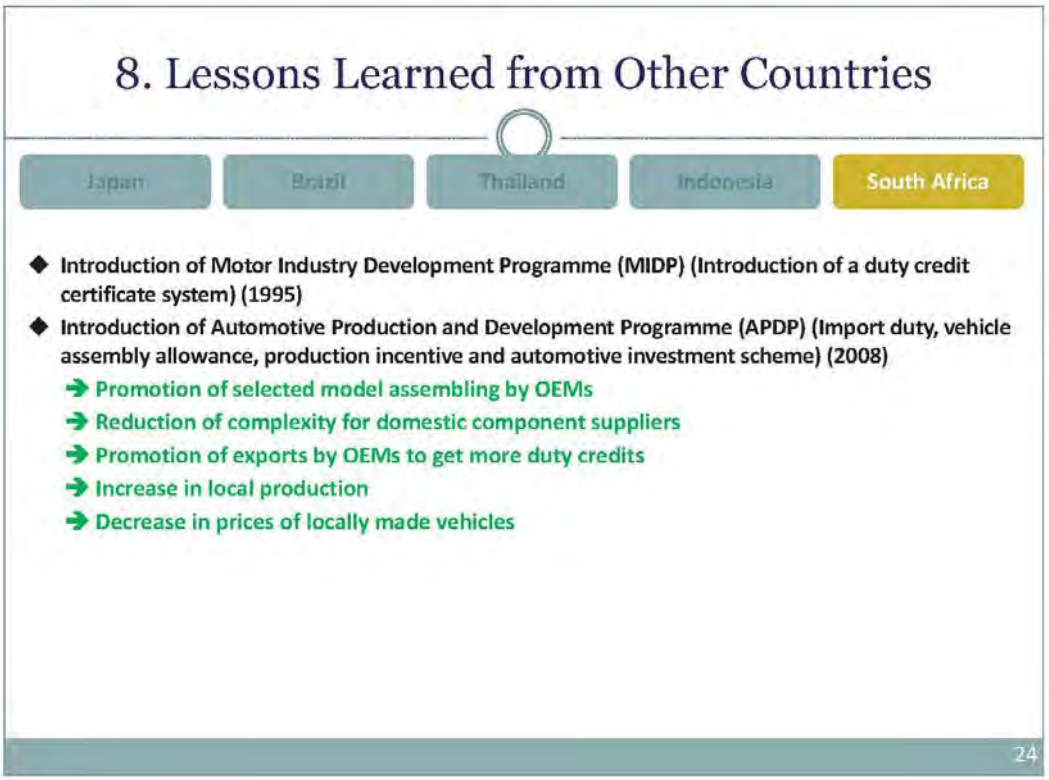

8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Lessons learned from the past Japan's automotive policies
Starting from CKD
in partnership with foreign assemblers, with strict enforcement of local content development
Giving incentives
to local auto parts manufacturers to enter into the market of vehicle assembling
Selecting auto parts
to be developed by priority towards import substitute
Realising intensive financial allocation
to the prioritised auto parts manufacturing
19

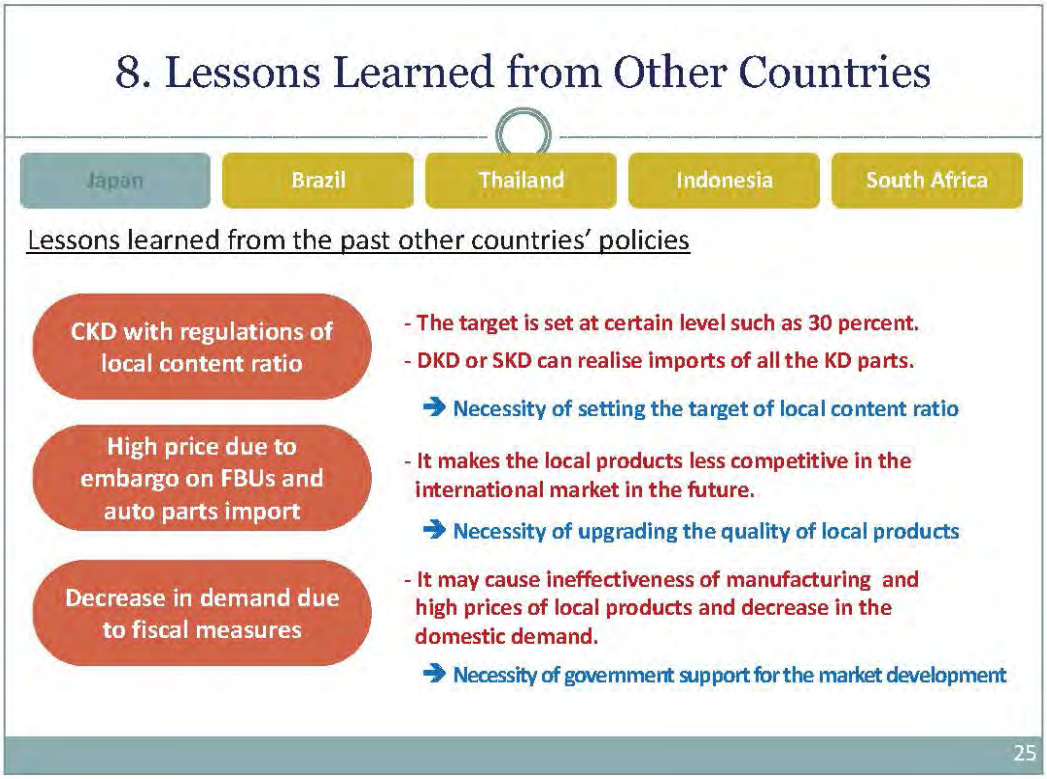

8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Embargo on import of auto parts (1952)
Embargo on import of fully built units (1953)
Establishment of assembling plants by foreign manufacturers such as VW (1953), Chrysler (1953), Toyota (1958)
Implementation of automotive industry development plan (Target of local content ratio at 90 percent in weight basis by 1960) (1956)
Production of local-made vehicles
Achievement of 95 percent local content ratio for passenger cars
Achievement of local production over 1 million (passenger cars and commercial vehicles)
Increase in prices of locally made vehicles
20

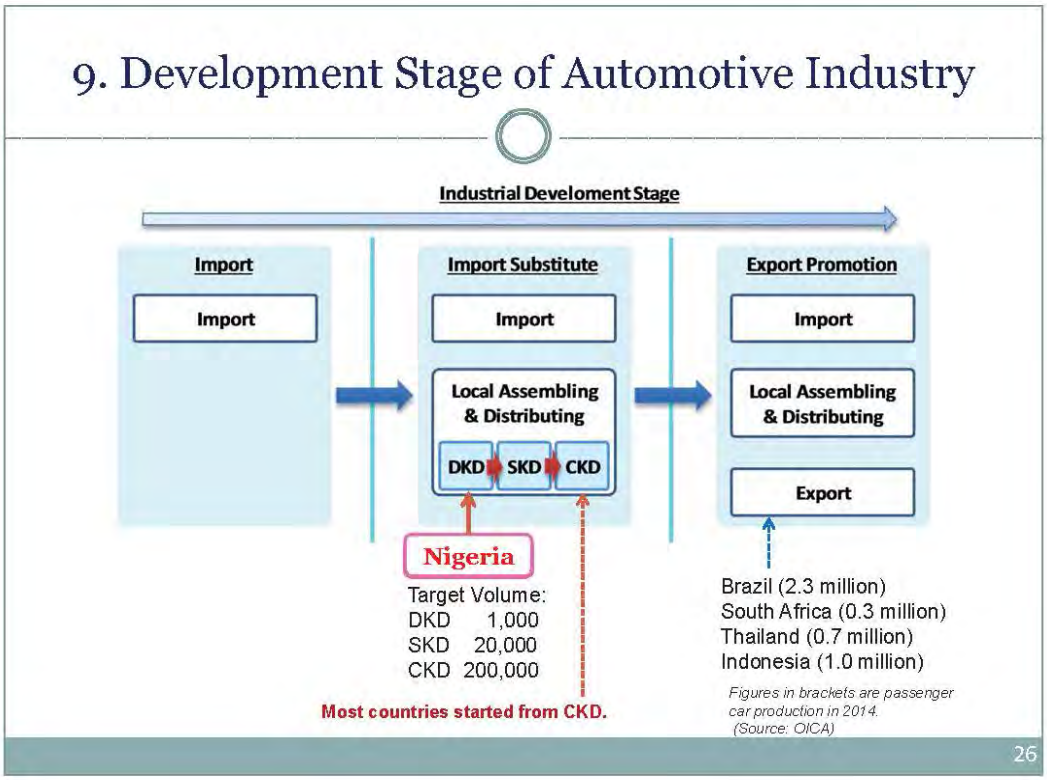

8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Limitation of models that can be assembled 25 percent of local contentment ratio with CKD (1971)
Embargo on import of some passenger cars and big buses (Towards protection of domestic manufacturers and improvement of local content ratio) (1978)
Increase in local content ratio at 5 percent per year (1979)
Protection of domestic industry from international competition
Development of supporting industries for automotive manufacturing
Establishment of supply chain between assemblers and local contents manufacturers
Lifting of embargo on import of fully built units (1991)
Deregulation of auto market
Lifting of local content regulations (2000)
Promotion of new investment in local assembling
Less competitiveness of local auto parts manufacturers
(Combination with liberalisation of interregional trade in ASEAN countries)
21


8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Embargo on import of fully built units (1969)
Obligation of CKD with domestic capital (1969)
License system of assemblers (control on entry) (1969)
Fiscal measures to promote commercial vehicle production (1976)
Regulations of nationalisation by auto parts (1976)
Protection of domestic industry from international competition
Development of supporting industries for automotive manufacturing
Establishment of supply chain between assemblers and local contents manufacturers
Lifting of embargo on import of fully built units (1993)
Reduction of tariff on auto parts imports (Higher local content ratio, lower import tariff) (1993)
Deregulation of auto market
22


8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
High (prohibitive) tariff on import of fully built units (1961)
Compulsory CKD with domestic capital (1961)
License system of assemblers (Control on entry) (1961)
Promotion of partnership with foreign manufacturers
Decrease in imports of FBUs
Increase in local content ratio (75 percent by 1997) (1989)
Manufacturing of a wide variety of products in small quantities
Inefficient manufacturing systems
Increase in prices of locally made vehicles
Lifting of Embargo on import of fully built units (1993)
Reduction of tariff on auto parts imports (1993)
Deregulation of auto market
23


8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Introduction of Motor Industry Development Programme (MIDP) (Introduction of a duty credit certificate system) (1995)
Introduction of Automotive Production and Development Programme (APDP) (Import duty, vehicle assembly allowance, production incentive and automotive investment scheme) (2008)
Promotion of selected model assembling by OEMs
Reduction of complexity for domestic component suppliers
Promotion of exports by OEMs to get more duty credits
Increase in local production
Decrease in prices of locally made vehicles
24


8. Lessons Learned from Other Countries
Japan
Brazil
Thailand
Indonesia
South Africa
Lessons learned from the past other countries' policies
CKD with regulations of local content ratio
- The target is set at certain level such as 30 percent.
- DKD or SKD can realise imports of all the KD parts.
➔ Necessity of setting the target of local content ratio
High price due to embargo on FBUs and auto parts import
- It makes the local products less competitive in the international market in the future.
➔ Necessity of upgrading the quality of local products
Decrease in demand due to fiscal measures
- It may cause ineffectiveness of manufacturing and high prices of local products and decrease in the domestic demand.
➔ Necessity of government support for the market development
25


9. Development Stage of Automotive Industry
Industrial Develoment Stage
Import
Import
Import Substitute
Import
Local Assembling & Distributing
DKD
SKD
CKD
Export Promotion
Import
Local Assembling & Distributing
Export
Nigeria
Target Volume:
DKD 1,000
SKD 20,000
CKD 200,000
Most countries started from CKD.
Brazil (2.3 million)
South Africa (0.3 million)
Thailand (0.7 million)
Indonesia (1.0 million)
Figures in brackets are passenger car production in 2014.
(Source: OICA)
26

10. Matrix of Development Phase and Assistance

Structure

Scenario of Automotive Industry Development		OEM Plants	Preparation	SKD 2	SKD 1	CKD
		Auto Parts Industry	Preparation	Production & Supply of Spare Parts		Supply to OEM
Component of NAIDP	Industrial Infrastructure		Action Plans (assumed) / Conditions / Action Plans (assumed)			
	Skills Development		Action Plans (assumed) / Conditions / Action Plans (assumed)			
	Standards		Action Plans (assumed) / Conditions / Action Plans (assumed)			
	Investment Promotion		Action Plans (assumed) / Conditions / Action Plans (assumed)			
	Market Development		Action Plans (assumed) / Conditions / Action Plans (assumed)			

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10-1 Industrial infrastructure (Development of Automotive Supplier Parks and Clusters)

NAIDP

Industrial Infrastructure — Lack of the aspect: who can be the local suppliers

- Developing M/P (Action Plans) — Need detail plans
- Audit (monitoring) systems — Institutional setup to evaluate the NAIDP progress
- Support programmes of auto parts industry — How to support the local auto parts industry
- Incentive systems for CKD — How to promote production with CKD
- Data gathering (market analysis) — How to identify the market situation

Lack of the aspect:
- How the progress can be monitored
- Who is responsible for the execution

Perception of auto industry:
The NAIDP is unclear and abstract.

After addressing those issues → Development of Supplier Parks

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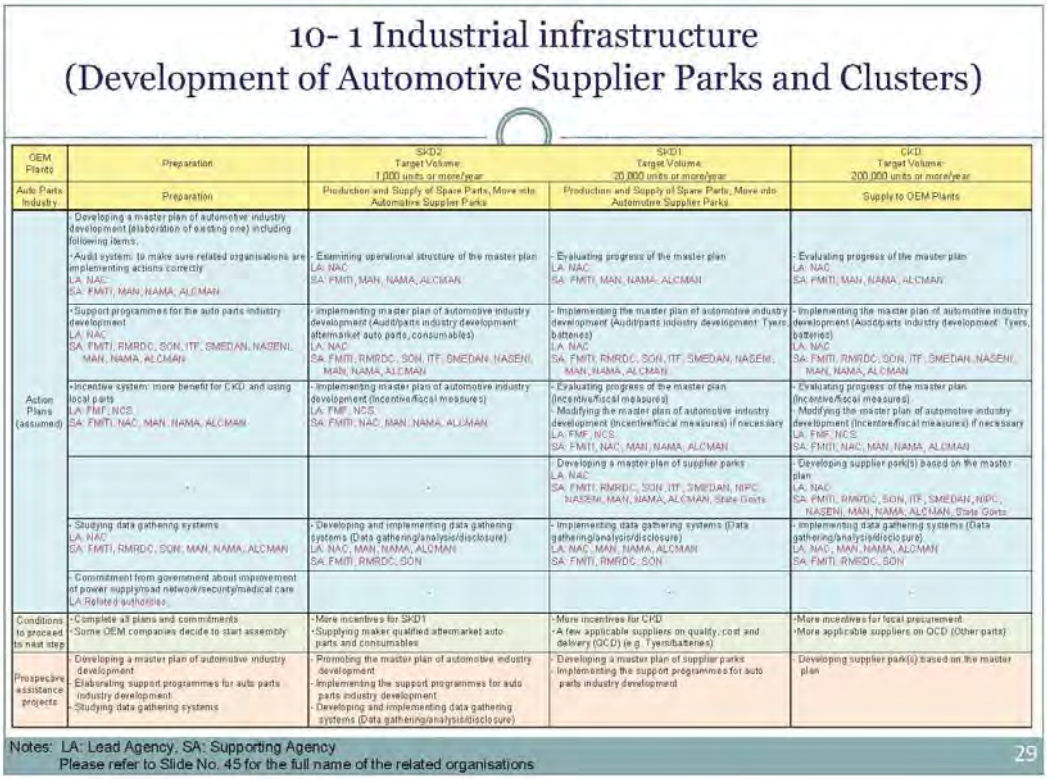

10- 1 Industrial infrastructure (Development of Automotive Supplier Parks and Clusters)

OEM Plants	Preparation	SKD2 Target Volume: 1,000 units or more/year	SKD1 Target Volume: 20,000 units or more/year	CKD Target Volume: 200,000 units or more/year
Auto Parts Industry	Preparation	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Supply to OEM Plants
Action Plans (assumed)	- Developing a master plan of automotive industry development (elaboration of existing one) including following items; ・Audit system: to make sure related organisations are implementing actions correctly LA: NAC SA: FMITI, MAN, NAMA, ALCMAN	- Examining operational structure of the master plan LA: NAC SA: FMITI, MAN, NAMA, ALCMAN	- Evaluating progress of the master plan LA: NAC SA: FMITI, MAN, NAMA, ALCMAN	- Evaluating progress of the master plan LA: NAC SA: FMITI, MAN, NAMA, ALCMAN
	・Support programmes for the auto parts industry development LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NASENI, MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (Audit/parts industry development: Tyres, batteries, aftermarket auto parts, consumables) LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NASENI, MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyres, batteries) LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NASENI, MAN, NAMA, ALCMAN	- Implementing the master plan of automotive industry development (Audit/parts industry development: Tyres, batteries) LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NASENI, MAN, NAMA, ALCMAN
	・Incentive system: more benefit for CKD and using local parts LA: FMF, NCS SA: FMITI, NAC, MAN, NAMA, ALCMAN	- Implementing master plan of automotive industry development (incentive/fiscal measures) LA: FMF, NCS SA: FMITI, NAC, MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (incentive/fiscal measures) - Modifying the master plan of automotive industry development (incentive/fiscal measures) if necessary LA: FMF, NCS SA: FMITI, NAC, MAN, NAMA, ALCMAN	- Evaluating progress of the master plan (incentive/fiscal measures) - Modifying the master plan of automotive industry development (incentive/fiscal measures) if necessary LA: FMF, NCS SA: FMITI, NAC, MAN, NAMA, ALCMAN
	-	-	- Developing a master plan of supplier parks LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC, NASENI, MAN, NAMA, ALCMAN, State Govts	- Developing supplier park(s) based on the master plan LA: NAC SA: FMITI, RMRDC, SON, ITF, SMEDAN, NIPC, NASENI, MAN, NAMA, ALCMAN, State Govts
	- Studying data gathering systems LA: NAC SA: FMITI, RMRDC, SON, MAN, NAMA, ALCMAN	- Developing and implementing data gathering systems (Data gathering/analysis/disclosure) LA: NAC, MAN, NAMA, ALCMAN SA: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure) LA: NAC, MAN, NAMA, ALCMAN SA: FMITI, RMRDC, SON	- Implementing data gathering systems (Data gathering/analysis/disclosure) LA: NAC, MAN, NAMA, ALCMAN SA: FMITI, RMRDC, SON
	- Commitment from government about improvement of power supply/road network/security/medical care LA:Related authorities	-	-	-
Conditions to proceed to next step	・Complete all plans and commitments ・Some OEM companies decide to start assembly	・More incentives for SKD1 ・Supplying maker qualified aftermarket auto parts and consumables	・More incentives for CKD ・A few applicable suppliers on quality, cost and delivery (QCD) (e.g. Tyres/batteries)	・More incentives for local procurement ・More applicable suppliers on QCD (Other parts)
Prospective assistance projects	- Developing a master plan of automotive industry development - Elaborating support programmes for auto parts industry development - Studying data gathering systems	- Promoting the master plan of automotive industry development - Implementing the support programmes for auto parts industry development - Developing and implementing data gathering systems (Data gathering/analysis/disclosure)	- Developing a master plan of supplier parks - Implementing the support programmes for auto parts industry development	- Developing supplier park(s) based on the master plan

Notes: LA: Lead Agency, SA: Supporting Agency
Please refer to Slide No. 45 for the full name of the related organisations

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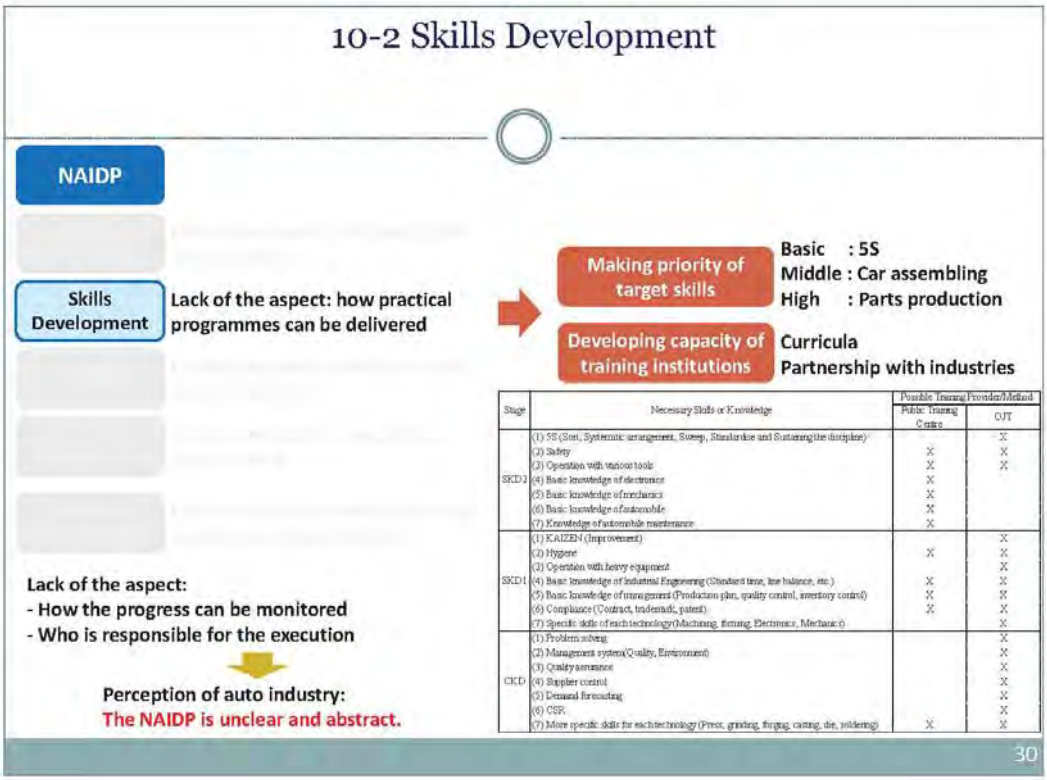

10-2 Skills Development

NAIDP

Skills Development — Lack of the aspect: how practical programmes can be delivered

Making priority of target skills

Basic : 5S
Middle : Car assembling
High : Parts production

Developing capacity of training institutions

Curricula
Partnership with industries

Stage	Necessary Skills or Knowledge	Possible Training Provider/Method: Public Training Centre	Possible Training Provider/Method: OJT
SKD2	(1) 5S (Sort, Systematic arrangement, Sweep, Standardize and Sustaining the discipline)	-	X
	(2) Safety	X	X
	(3) Operation with various tools	X	X
	(4) Basic knowledge of electronics	X	
	(5) Basic knowledge of mechanics	X	
	(6) Basic knowledge of automobile	X	
	(7) Knowledge of automobile maintenance	X	
SKD1	(1) KAIZEN (Improvement)		X
	(2) Hygiene	X	X
	(3) Operation with heavy equipment		X
	(4) Basic knowledge of Industrial Engineering (Standard time, line balance, etc.)	X	X
	(5) Basic knowledge of management (Production plan, quality control, inventory control)	X	X
	(6) Compliance (Contract, trademark, patent)	X	X
	(7) Specific skills of each technology(Machining, forming, Electronics, Mechanics)		X
CKD	(1) Problem solving		X
	(2) Management system(Quality, Environment)		X
	(3) Quality assurance		X
	(4) Supplier control		X
	(5) Demand forecasting		X
	(6) CSR		X
	(7) More specific skills for each technology (Press, grinding, forging, casting, die, soldering)	X	X

Lack of the aspect:
- How the progress can be monitored
- Who is responsible for the execution

Perception of auto industry:
The NAIDP is unclear and abstract.

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10-2 Skills Development

OEM Plants	Preparation	SKD2 Target Volume: 1,000 units or more/year	SKD1 Target Volume: 20,000 units or more/year	CKD Target Volume: 200,000 units or more/year
Auto Parts Industry	Preparation	Production and Supply of Spare Parts; Move into Automotive Supplier Parks	Production and Supply of Spare Parts; Move into Automotive Supplier Parks	Supply to OEM Plants
Action Plans (assumed)	- Making priority of target skills (Basic: 5S, Middle: Car assembling, High: Parts production) - Developing curricula - Developing training centres LA: ITF SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Selecting OEM cooperators - Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (5S/Car assembling for SKD/Aftermarket auto parts and consumable production) LA: ITF SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Car assembling for CKD/Tyers and batteries production) LA: ITF SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Selecting supplier cooperators - Selecting training participants - Coordinating the programmes for training - Implementing the curricula (KAIZEN/Parts certification/other parts production) LA: ITF SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN
	- Developing capacity of organisations that supply the training programmes LA: ITF, Training institutions SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes LA: ITF, Training institutions SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes LA: ITF, Training institutions SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	- Developing capacity of organisations that supply the training programmes LA: ITF, Training institutions SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN
Conditions to proceed to next step	- Complete all items	- Substantial number of trained people (SKD assembly)	- Substantial number of trained people (CKD assembly)	- Substantial number of trained people (Parts certification)
Prospective assistance projects	- Developing capacity of organisations that supply the training programmes			

Notes: LA: Lead Agency, SA: Supporting Agency
Please refer to Slide No. 45 for the full name of the related organisations

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10-3 Standards

NAIDP

Standards — Lack of the aspect: how the quality can be improved

Lack of the aspect:
- How the progress can be monitored
- Who is responsible for the execution

Perception of auto industry:
The NAIDP is unclear and abstract.

Construction of test centres

Promotion of QMS certification

+

Audit (monitoring) systems — Implementation of M/P on standardisation

Car maintenance procedure — Periodical vehicle inspection

Certification systems for Car Mechanics — Formalising workshops, Improving technology

Developing capacity of related organisations

32

10-3 Standards

OEM Plants	Preparation	SKD2 Target Volume: 3,000 units or more/year	SKD1 Target Volume: 20,000 units or more/year	CKD Target Volume: 200,000 units or more/year	
Auto Parts Industry	Preparation	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Supply to OEM Plants	
Action Plans (assumed)	- Developing audit systems for implementation of the master plan of automotive industry development on standardisation LA: SON SA: FMITI, NAC, RMRDC, MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation LA: SON SA: FMITI, NAC, RMRDC, MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation LA: SON SA: FMITI, NAC, RMRDC, MAN, NAMA, ALCMAN	- Auditing implementation of the master plan of automotive industry development on standardisation LA: SON SA: FMITI, NAC, RMRDC, MAN, NAMA, ALCMAN	
	- Developing car maintenance procedures (periodical maintenance) LA: NAC, State Governments SA: FMITI, RMRDC, SON, MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance) LA: NAC, State Governments SA: FMITI, RMRDC, SON, MAN, NAMA, ALCMAN	- Developing car maintenance procedures (periodical maintenance) LA: NAC, State Governments SA: FMITI, RMRDC, SON, MAN, NAMA, ALCMAN	- Implementing car maintenance procedures (periodical maintenance) LA: State Governments SA: FMITI, NAC, RMRDC, SON, MAN, NAMA, ALCMAN	
	- Developing the automotive component test centres LA: NAC SA: FMITI, RMRDC, SON	- Operating the automotive component test centres LA: NAC, SON SA: FMITI, RMRDC, MAN, NAMA, ALCMAN	- Operating the automotive component test centres LA: NAC, SON SA: FMITI, RMRDC, MAN, NAMA, ALCMAN	- Operating the automotive component test centres LA: NAC, SON SA: FMITI, RMRDC, MAN, NAMA, ALCMAN	
	- Developing certification systems for car mechanics LA: NAC, ITF SA: FMITI, SON, MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics LA: NAC, ITF SA: FMITI, SON, MAN, NAMA, ALCMAN	- Developing certification systems for car mechanics LA: NAC, ITF SA: FMITI, SON, MAN, NAMA, ALCMAN	- Implementing certification system for car mechanic LA: ITF SA: FMITI, NAC, SON, MAN, NAMA, ALCMAN	
	- Developing supporting programmes for OMS certification LA: NAC, SON SA: FMITI, ITF, MAN, NAMA, ALCMAN	- Implementing supporting programmes for OMS certification LA: SON SA: FMITI, NAC, ITF, MAN, NAMA, ALCMAN	- Implementing supporting programmes for OMS certification LA: SON SA: FMITI, NAC, ITF, MAN, NAMA, ALCMAN	- Implementing supporting programmes for OMS certification LA: SON SA: FMITI, NAC, ITF, MAN, NAMA, ALCMAN	
	- Developing capacity of organisations related to standards LA: NAC, SON SA: FMITI, ITF	- Developing capacity of organisations related to standards LA: NAC, SON SA: FMITI, ITF	- Developing capacity of organisations related to standards LA: NAC, SON SA: FMITI, ITF	- Developing capacity of organisations related to standards LA: NAC, SON SA: FMITI, ITF	
Conditions to proceed to next step	- Complete all items except developing car maintenance procedures and certification systems for car mechanics	•Complete car maintenance procedures and car mechanic certification systems •A few applicable suppliers on OCD (Aftermarket auto parts/consumables/tyres/batteries)		•More applicable suppliers on OCD (Other parts)	
Prospective assistance projects	- Developing capacity of organisations related to car maintenance procedures and car mechanic certification - Developing capacity of NAC and other related organisation to utilise auto parts testing for upgrading locally manufactured products				

Notes: LA: Lead Agency, SA: Supporting Agency
Please refer to Slide No. 45 for the full name of the related organisations

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10-4 Investment Promotion

NAIDP

Investment Promotion — Lack of the aspect: how CKD can be promoted

Check of smuggling and grey imports

Fiscal measures

+

Gathering auto market information — Market analysis Identifying manufacturers

ADF for local component promotion — Parts to be prioritised (Ex. mass production, uniformity, accuracy)

Developing capacity of related organisations — Improving administration by NAC

Lack of the aspect:
- How the progress can be monitored
- Who is responsible for the execution

Perception of auto industry:
The NAIDP is unclear and abstract.

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10-4 Investment Promotion

OEM Plants	Preparation	SKD2 Target Volume: 1,000 units or more/year	SKD1 Target Volume: 20,000 units or more/year	CKD Target Volume: 200,000 units or more/year
Auto Parts Industry	Preparation	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Supply to OEM Plants
Action Plans (assumed)	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria) LA: NAC SA: FMITI, FMF, NCS, MAN, NAMA	- Studying, developing and implementing data gathering systems (automotive sales in Nigeria) LA: NAC SA: FMITI, FMF, NCS, MAN, NAMA	-	-
	- Erasing loopholes such as smuggling and tax evasion LA: NAC, NCS SA: FMITI, FMF	- Erasing loopholes such as smuggling and tax evasion LA: NAC, NCS SA: FMITI, FMF		-
	- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF LA: NAC SA: FMITI, BOI, NIPC, SMEDAN, SON, MAN, NAMA, ALCMAN	- Using Automotive Development Fund (ADF) to promote SKD and local component manufacturing - Strengthening NAC's administrative function - Monitoring the development of private companies that received ADF LA: NAC SA: FMITI, BOI, NIPC, SMEDAN, SON, MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF LA: NAC SA: FMITI, BOI, NIPC, SMEDAN, SON, MAN, NAMA, ALCMAN	- Using ADF to promote CKD and local component manufacturing - Monitoring the development of private companies that received ADF LA: NAC SA: FMITI, BOI, NIPC, SMEDAN, SON, MAN, NAMA, ALCMAN
Conditions to proceed to next step	•Complete all dam		•More incentives for local component manufacturers	
Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for investment promotion - Developing capacity of NAC and other related organisations to monitor the measure against smuggling			

Notes: LA: Lead Agency, SA: Supporting Agency
Please refer to Slide No. 45 for the full name of the related organisations

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10-5 Market Development

NAIDP

Affordable vehicles

Loan with low interest rate

Patronage by governments

+

Market Development — Lack of the aspect: how the market conditions can be identified

Lack of the aspect:
- How the progress can be monitored
- Who is responsible for the execution

Perception of auto industry:
The NAIDP is unclear and abstract.

Gathering auto market information	Market analysis Identifying manufacturers
ADF for vehicle purchasing scheme	Parts to be prioritised (Ex. mass production, uniformity, accuracy)
Developing capacity of related organisations	Improving administration by NAC

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10-5 Market Development

OEM Plants	Preparation	SKD2 Target Volume: 1,000 units or more/year	SKD1 Target Volume: 20,000 units or more/year	CKD Target Volume: 200,000 units or more/year
Auto Parts Industry	Preparation	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Production and Supply of Spare Parts, Move into Automotive Supplier Parks	Supply to OEM Plants
Action Plans (assumed)	- Studying, developing and implementing data gathering system (automotive sales in Nigeria) LA: NAC SA: FMITI, FMF, NCS, MAN, NAMA	- Studying, developing and implementing data gathering system (automotive sales in Nigeria) LA: NAC SA: FMITI, FMF, NCS, MAN, NAMA	.	.
	- Institutionalising patronage by government and its agencies LA: State House SA: FMITI, NAC, State Governments	- Institutionalising patronage by government and its agencies LA: State House SA: FMITI, NAC, State Governments	- Institutionalising patronage by government and its agencies LA: State House SA: FMITI, NAC, State Governments	- Institutionalising patronage by government and its agencies LA: State House SA: FMITI, NAC, State Governments
	- Developing vehicle purchase s cheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class LA: NAC, Financial Institutions SA: FMITI, BOI, MAN, NAMA	- Developing vehicle purchase s cheme - Using ADF as source of fund for vehicle purchase loan for middle and lower income class LA: NAC, Financial Institutions SA: FMITI, BOI, MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class LA: NAC SA: FMITI, BOI, MAN, NAMA	- Using ADF as source of fund for vehicle purchase loan for middle and lower income class LA: NAC SA: FMITI, BOI, MAN, NAMA
	.	- Monitoring the vehicle purchase loan s upported by ADF - Monitoring the effect of vehicle purchase scheme LA: NAC SA: FMITI, BOI	- Monitoring the vehicle purchase loan s upported by ADF - Monitoring the effect of vehicle purchasing scheme LA: NAC SA: FMITI, BOI	- Monitoring the vehicle purchase loan supported by ADF - Monitoring the effect of vehicle purchasing scheme LA: NAC SA: FMITI, BOI
Conditions to proceed to next step	- Developing vehicle purchase scheme			
Prospective assistance projects	- Developing NAC's capacity for data gathering on automotive market - Developing NAC's capacity for ADF administration and monitor and evaluate the ADF provision for vehicle purchasing loan			

Notes: LA: Lead Agency, SA: Supporting Agency
Please refer to Slide No. 45 for the full name of the related organisations

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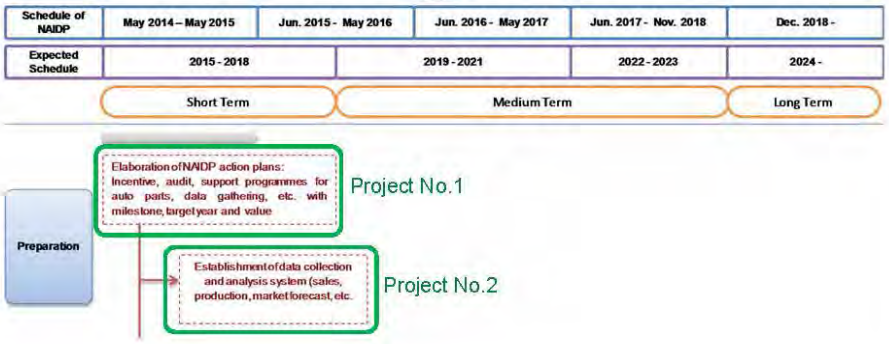
11. Expected Implementation Schedule



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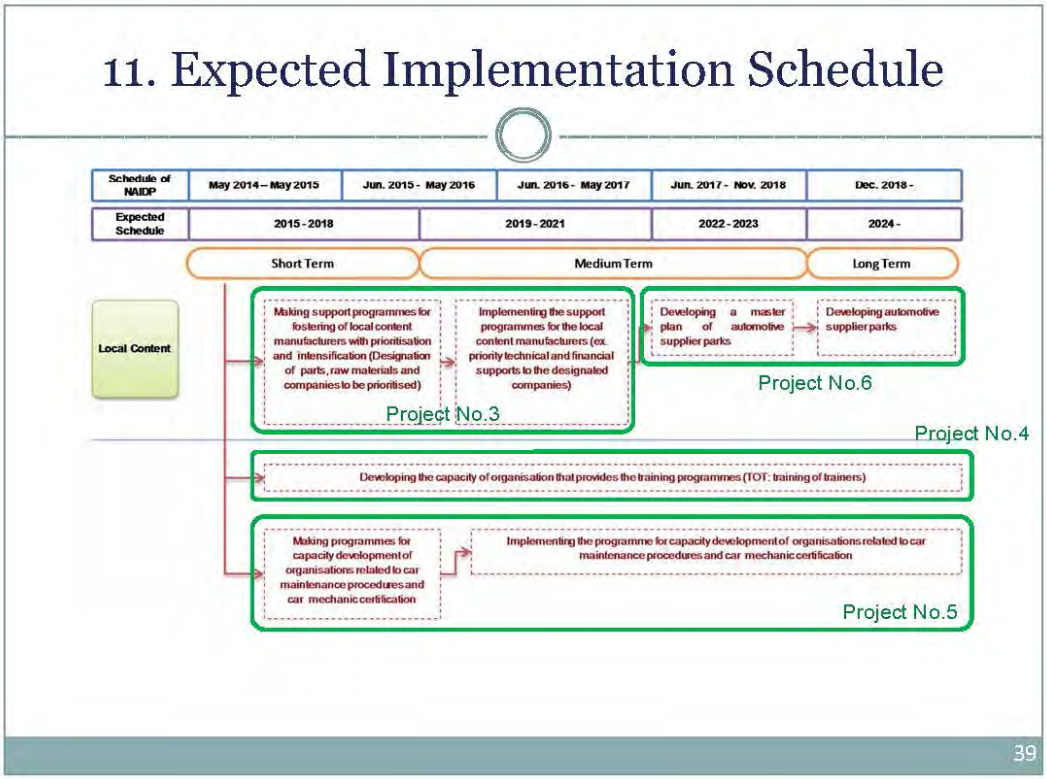
11. Expected Implementation Schedule
Schedule of NAIDP
May 2014 – May 2015
Jun. 2015 - May 2016
Jun. 2016 - May 2017
Jun. 2017 - Nov. 2018
Dec. 2018 -
Expected Schedule
2015 - 2018
2019 - 2021
2022 - 2023
2024 -
Short Term
Medium Term
Long Term
Local Content
Making support programmes for fostering of local content manufacturers with prioritisation and intensification (Designation of parts, raw materials and companies to be prioritised)
Implementing the support programmes for the local content manufacturers (ex. priority technical and financial supports to the designated companies)
Project No.3
Developing a master plan of automotive supplier parks
Developing automotive supplier parks
Project No.6
Project No.4
Developing the capacity of organisation that provides the training programmes (TOT: training of trainers)
Making programmes for capacity development of organisations related to car maintenance procedures and car mechanic certification
Implementing the programme for capacity development of organisations related to car maintenance procedures and car mechanic certification
Project No.5
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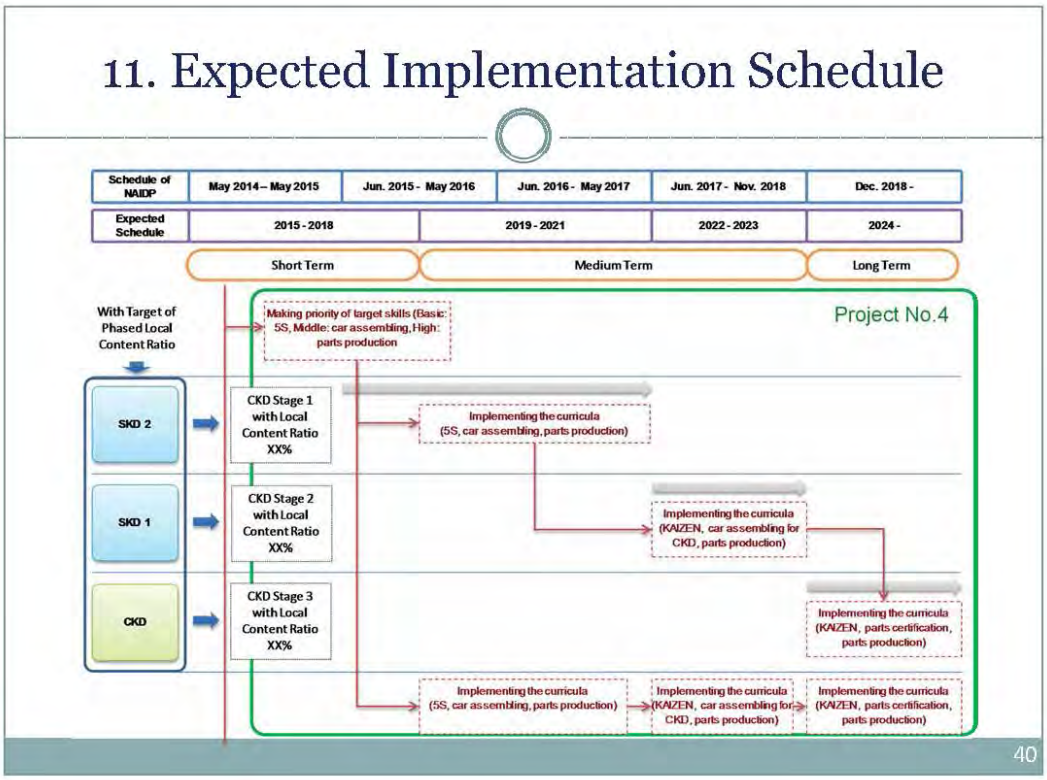
11. Expected Implementation Schedule
Schedule of NAIDP
May 2014 – May 2015
Jun. 2015 - May 2016
Jun. 2016 - May 2017
Jun. 2017 - Nov. 2018
Dec. 2018 -
Expected Schedule
2015 - 2018
2019 - 2021
2022 - 2023
2024 -
Short Term
Medium Term
Long Term
With Target of Phased Local Content Ratio
Making priority of target skills (Basic: 5S, Middle: car assembling, High: parts production
Project No.4
SKD 2
SKD 1
CKD
CKD Stage 1 with Local Content Ratio XX%
CKD Stage 2 with Local Content Ratio XX%
CKD Stage 3 with Local Content Ratio XX%
Implementing the curricula (5S, car assembling, parts production)
Implementing the curricula (KAIZEN, car assembling for CKD, parts production)
Implementing the curricula (KAIZEN, parts certification, parts production)
Implementing the curricula (5S, car assembling, parts production)
Implementing the curricula (KAIZEN, car assembling for CKD, parts production)
Implementing the curricula (KAIZEN, parts certification, parts production)
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12. Potential Assistance Projects and Activities

< Short Term (2015 -) >

No.	Project Name	Activities	Remarks
1	Project on Development of Action Plans for Strengthening Automotive Industry	◆ Elaboration of NAIDP action plans: Incentive, audit, support programmes for auto parts, data gathering, etc. with milestone, target year and value	✓ Lead agency: NAC ✓ Need close collaboration with related agencies and automotive industry

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12. Potential Assistance Projects and Activities

< Short (2015 -) to Medium (2019 -)Term >

No.	Project Name	Activities	Remarks
2	Project on Development of Market Research Systems for Automotive Sector	◆ Establishment of data collection and analysis system (sales, production, market forecast, etc.)	✓ Lead agency: NAC ✓ Need close collaboration with automotive industry (assembly and auto parts)
3	Project on Local Content Industry Development for Automotive Sector	◆ Implementing the support programmes for the local content manufacturers (ex. priority technical and financial supports to the designated companies) ◆ Making support programmes for fostering of local content manufacturers with prioritisation and intensification (Designation of parts, raw materials and companies to be prioritised)	✓ Lead agency: NAC ✓ Need close collaboration with related agencies and automotive industry ✓ Need commitment to strategic financial resource allocation to the auto parts industry

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12. Potential Assistance Projects and Activities

< Short (2015 -) to Medium (2019 -)Term >

No.	Project Name	Activities	Remarks
4	Project on Capacity Development of Training Centres for Automotive Sector	◆ Making priority of target skills (Basic: 5S, Middle: car assembling, High: parts production ◆ Implementing the curricula (5S, car assembling, parts production) ◆ Implementing the curricula (KAIZEN, car assembling for CKD, parts production) ◆ Implementing the curricula (KAIZEN, parts certification, parts production) ◆ Developing the capacity of organisation that provides the training programmes (TOT: training of trainers)	✓ Lead agency: ITF ✓ Need operation of auto training centres ✓ Need close collaboration with automotive industry and private technical academies
5	Project on Development of Vehicle Inspection and Mechanics Qualification Systems	◆ Making programmes for capacity development of organisations related to car maintenance procedures and car mechanic certification	✓ Lead agency: NAC and SON ✓ Need close collaboration with automotive industry and workshops

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12. Potential Assistance Projects and Activities

< Long Term (2024 -)>

No.	Project Name	Activities	Remarks
6	Project on Development of A Master Plan for Automotive Supplier Park	◆ Developing a master plan of automotive supplier parks ◆ Developing automotive supplier parks	✓ Lead agency: NAC ✓ Need revitalisation of auto parts industry (market development for the locally-made auto parts, development of supply chain within Nigeria,

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List of Related Organisations

ALCMAN:	Automotive Local content Manufacturers Association of Nigeria
BOI:	Bank of Industry
FNF:	Federal Ministry of Finance
FMITI:	Federal Ministry of Industry, Trade and Investment
FRSC:	Federal Road Safety Commission
ITF:	Industrial Training Fund
MAN:	Manufacturers Association of Nigeria
NAC:	National Automotive Council
NAMA:	Nigerian Automotive Manufacturers Association
NASENI:	National Agency for Science and Engineering Infrastructure
NCS:	Nigerian Customs Service
NIPC:	Nigerian Investment Promotion Commission
RMRDC:	Raw Materials Research and Development Council
SMEDAN:	Small and Medium Enterprises Development Agency
SON:	Standards Organization of Nigeria

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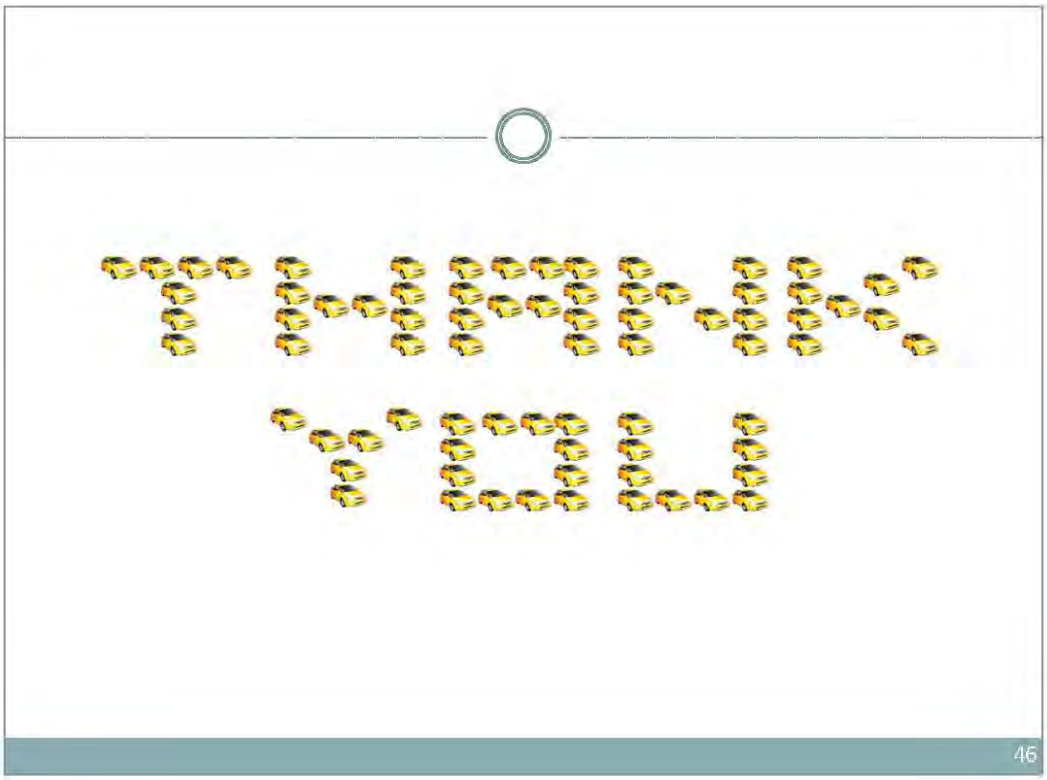

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Appendix-12: Discussion Record of Workshop

Project	Data Collection Survey on Automotive Sector in the Federal Republic of Nigeria
Date/Time	10 June, 2015　10:30am - 12:50pm
Place	805 Restaurant & Lounge
Attendances	< Nigerian Side > Mr. Aminu Jalal, Director General, NAC Dr. Mohammed Dauda, Director, Engineering, NASENI Dr. M. L. Buga, Director, Tech-Div., RMRDC Mr. Ibraheem R.O., Ag. Director (Economic Growth), NPC Mr. Akpagu. F. I., NPC Mr. Engr. Bede E. Obayi, Head of Enforcement, Lagos Head Office, SON Ms. MbaNkechinyere, Sectoral Executive, MAN Mr. Uchula E. I., FMITI Mr. David Abu Ozigi, Director, Engineering & Technology Promotion, SMEDAN Mr. Engr. Nwosa J.U. Lucky, Deputy Director, Technology Acquisition and Research (TAR), NOTAP Some other NAC members(See attached list) <Japanese Side > Mr. Chikara Yoshimura, Economic Division, Embassy of Japan Mr. Chuka Joshua, Research Analyst, Embassy of Japan Mr. Hirotaka Nakamura, Chief Representative, JICA Nigeria Office Ms. Chie Shimodaira, Representative, JICA Nigeria Office Ms. Emiko Mikami, Project Formulation Advisor, JICA Nigeria Office Ms. Elekwachi N. Doris, Program Officer, JICA Nigeria Office Ms. Emi Nishihata, Assistant Director, Africa Div. 1, Africa Dept., JICA Headquarters Mr. Akihiro Shimomura, JICA Survey Team (Leader) Mr. Hideki Tabuchi, JICA Survey Team

PREAMBLE

The Nigerian Government requested the project for the development of a master plan for automotive supplier parks in Nigeria to the Government of Japan in July 2014. This requested project is a stepping stone to realize the automotive supplier parks in three regions that the government is aiming to develop as clusters.

Information gathering was conducted jointly by the Japanese consultant team and Council's officials in December 2014 and January 2015. Following the successful gathering of data from the survey, the officials were invited for presentation basically with the aim of;

i. Reporting the survey result for review by the stakeholders.

ii. Discussing the optimal scenario of automotive industry development and potential cooperation area.

1. Opening remarks by Director General of NAC

The DG (NAC) thanked Japanese Government, JICA, Yachiyo Engineering Co Ltd and other stakeholders for ensuring the success of the survey. The survey report has presented useful information that would help the growth and development of the auto industry in general and supplier parks in particular. He mentioned that the Council has received technical aid from JICA through training of some of its personnel in the recycling of end-of- life vehicles. .

2. Remarks by Chief Representative of JICA Nigeria

JICA Chief Representative was pleased that the report of the survey has reached advanced stage. JICA appreciates NAC and other agencies for their inputs and contributions towards the effective conduct of the survey. The survey is aimed at analyzing the current issues on the development of the automotive industry in Nigeria as well as policy and strategy, institutional framework and progress of the automotive industry development.

3. Presentation by Survey Team

The survey team leader presented the findings of the survey, analysis result, lessons learned from the experiences of other automobile producing countries, matrix of automotive industry development scenario and potential assistance projects.

4. Discussion(Comments/Suggestion/Question/Observation)

- ✓ National Planning Commission (NPC) noted that the report is comprehensive and apt. However, the challenges or experiences of the assemblers are already in existence in Nigeria such as PAN, Innosson, etc. in their quest for the implementation of the policy. PAN produces Chinese small cars
- ✓ Raw Material Research and Development Council (RMRDC) asked why using locally-manufactured parts is not practical.

  =>According to the survey result by RMRDC, some local parts manufacturers are active and others have changed their business or closed down their plants. Japanese manufacturers have tried to find their partners for incorporation of local parts into assembling, but no local parts manufacturer was able to meet their requirements in terms of quality and price. (Survey Team)

  =>The Council added that benchmark studies have been carried out to ascertain the processes and procedures for local parts suppliers and to consider the measures to fill the gaps.
- ✓ National Agency for Science and Engineering Infrastructure (NASENI) noted that the challenges presented in the report can be categorized into three points.
  - o Government related issues (creating an enabling environment)
  - o Technology Transfer that is, collaborating with foreign organisation such as JICA to enhance technology transfer and advanced manufacturing technology

- Manpower, both skilled and unskilled systematic approach

✓ National Office for Technology Acquisition and Promotion (NOTAP) asked if there was any collaboration between the institution and the survey team.)

=>The survey team visited NOTAP and discussed the technology transfer issue. Technology transfer is an important part for development of local parts industry. However, considering the components of NAIDP, technology transfer is not directly incorporated into the action plans of NAIDP. Therefore, the issue on the technical transfer is not stated in the report.

✓ The Council asked the team to advise on how best to monitor the policy implementation.

=>Generally, total production and local content ratio can be used as the monitoring indicators in the automotive sector. One of the investors' concerns is when the policy measures are realized. To know the progress of NAIDP is very important for investors to make decision on the scale of investments. NAC needs to monitor such kind of indicators during the period of policy implementation.

✓ Stakeholders requested to know the experiences in Japan in the area of the loan scheme.

=>There are two ways in Japan. One is a private bank loans for purchasing automobiles. The other one is the tax reduction by the government for the purchase of energy-saving automobiles. (Survey Team)

=> Council asked to know the current interest rates on loans in Japan.

=>The loan is provided by dealers and banks. Some dealers provide very low rate loan like 1% as promotion. Normally the rate is 1 digit. Some dealers like Toyota group have their own financial scheme to support buying their products.

✓ Manufacturers Association of Nigeria (MAN) asked the Japanese survey team the criteria for assessing the standards of the products and the ways to encourage the local manufacturers.

=>As explained before, NAC has started the benchmarking under the local content development programme. Based on the result of the benchmarking, the gap needs to be fulfilled. (NAC)

=>When foreign manufacturers incorporate local contents into the assembling, they need to show the local content suppliers their specifications. The suppliers need to follow their standards. (SON)

=> One important thing is how to proceed the assembling stage from SKD to CKD with using local parts. If there is a certain level of target local parts ratio, assemblers should use local parts and provide local content manufacturers with the specifications. This means they need to cooperate with local suppliers to improve the quality of local parts. (Survey Team)

✓ National Planning Commission (NPC) asked to know the steps taken to enhance the skills development of the higher institution in line with the auto policy.

=>When the number of assemblers increases, assemblers can provide opportunities of on-the-job

training collaborating with universities and institutions like ITF. Some donors may be able to support the skills development. Some assemblers in Nigeria have their own private academy to improve skills not only for automotive industry, but also for all industries in Nigeria. In several years the situation will be improved with collaboration among government, private companies, and institutions. (Survey Team)

=>The on-the-job training has been outlined for assembly plants as one of the criteria for the establishment of the assembling plants. (NAC)

- ✓ A submission would be made by SMEDAN to NAC where specific roles would be spelt out for the organisation in the infrastructure development. (SMEDAN)

5. Closing remarks by NAC

The DG of NAC thanked all the stakeholders for their meaningful contributions and assured them that all their comments would be treated with utmost attention it deserves. The presentation of "Data Collection Survey on Automotive Sector in the Federal Republic of Nigeria" came to a close with exchange of greetings by all stakeholders present.

6. Next steps

- ✓ Submission of inputs from participants by June 24, 2015 (two weeks)

End