PART VII

CORRIDOR DEVELOPMENT PLAN FOR TOGO

Chapter 26 National Development Strategies for Togo

26.1 Exiting National Development Plans

26.1.1 Review of the "Strategy on Accelerated Growth and Employment Promotion"- Stratégie de Croissance Accélérée et de Promotion de l'Emploi (SCAPE) 2013-2017

(1) Objectives of the SCAPE 2013-2017

The Strategy on Accelerated Growth and Employment Promotion (SCAPE: *Stratégie de Croissance Accélérée et de Promotion de l'Emploi*) of Togo offers a development framework for the medium term to achieve the General Political Declaration of the government, and the objectives of the Millennium Development Goals, as well as the vision of the authorities to make Togo into an emerging country within 15 to 20 years, respectful of human rights and promoting the rule of law. As such, the Togolese Government considers that there are four major challenges in the medium term for the period 2013-2017 to ensure the take-off of the Togolese economy and move towards the achievement of the Millennium Development Goals.

These are the challenges of accelerating economic growth, employment and greater regional and international integration of the Togolese economy; the challenge of governance; the socio-demographic challenge; and the challenge of urban development, spatial planning and environmental protection.

(2) Major Points of the SCAPE 2013-2017

The economic policy of the Government in the medium term for the period 2012-2016 focuses mainly on laying down and strengthening the foundations of the future emergence of Togo. For this, it moves towards establishing new priorities which are:

- Acceleration of growth;
- Employment and inclusion;
- Strengthening Governance
- Reduction of regional disparities and promoting grassroots development.

Five strategic areas have been identified for the implementation of this strategy. They complement and interact to achieve the political direction aiming at creating accelerated, inclusive and employment generating growth, these are:

- Development of high growth potential sectors;
- Strengthening economic infrastructure
- Development of human capital, social protection and employment;
- Strengthening governance;
- Promoting participatory, balanced and sustainable development.

Regarding the development of high potential growth sectors; agricultural sectors, trade, services, mining, manufacturing and tourism are considered as the main generators of strong and sustainable growth.

(3) Other Important Aspects

The SCAPE document is the result of a participatory process, and is structured around five chapters.

The first chapter traces the evolution of the economic and social situation in the past years and it draws lessons from implementation of development policies to lay the foundation for the formulation of the SCAPE.

The second chapter presents the new development strategy of Togo by identifying the five strategic areas listed above which constitute the backbone of the policy.

The third chapter presents the macroeconomic and budgetary framework, namely budgeting and funding strategy. To this end, it explores two scenarios: a moderate growth scenario said baseline scenario, which is in line with trends over the past three years and shares the same assumptions of the program negotiated with the IMF. Following this scenario the overall economic growth will strengthen over the period, with rates increasing from 5.8% in 2013 to 6.3% in 2017; an annual average of 6% over the period. An alternative scenario, named the accelerated growth scenario (6% in 2013 expected to reach 8.1% in 2017, with a 7.1% annual average over the whole period), is also envisaged. It outlines the medium-term policy that Togo must implement to be on a development path enabling it to realize its vision of economic emergence in 2030. This is the scenario of a strong and sustainable growth and shared social progress, marked by a significant decrease in underemployment, poverty and inequality.

The fourth chapter deals with the implementation of the strategy through different mechanisms and operational instruments, including priority action programmes. The fifth chapter describes the risks that could hamper the proper functioning of the development scheme.

Togo as a Corridor for development and trade

In another important aspect of the SCAPE related to the infrastructure sector, the government has strongly tried to utilize the comparative advantages of having a deep water seaport, which is the best in the sub-region, to realize a logistics corridor for development and trade. As such, Togo intends to optimize its geostrategic position in the sub-region of West Africa for more successful integration into the world economy. The development of the corridor is to be achieved through massive investment in modern infrastructure, efficient multimodal transportation between the southern zone (Lomé) and the northern zone (Cinkassé) consisting of shipping infrastructure (Lomé Autonomous Port, Port of Kpémé for phosphate loading); the road network, rail network and airports (Lomé and Niamtougou). As such, the North-South Corridor aims at transforming regions along the corridor into dynamic economic zones, prosperous and attractive.

This is a multi-sectoral project focused on the development of industrial, commercial, tourism and logistics services in addition to the development of agricultural crops following different eco-climatic areas.

Moreover, the SCAPE includes a number of cross-cutting issues among which are the population, gender, environment and AIDS. They are integrated, whenever possible, into sectoral strategies and policies.

26.1.2 Economic Growth Projected by National Development Plans for Togo

As highlighted previously, the SCAPE explores two alternative growth scenarios: a moderate growth scenario called the baseline scenario, which is in line with trends over the past three years and shares the same assumptions of the program negotiated with the IMF. Following this scenario, the overall economic growth will strengthen over the period, with rates increasing from 5.8% in 2013 to 6.3% in 2017; with an annual average of 6% over the period. The alternative scenario promoted by the SCAPE is named the accelerated growth scenario and projects an average annual economic growth of 7.1% over the whole period.

Table 26.1.1 Future GDP Growth Rates for Togo

(1) Baseline scenario

	2012	2013	2014	2015	2016	2017
Primary sector	5.1	4.5	4.4	4.7	5.0	5.1
Secondary sector	12.4	12.3	9.9	10.9	11.1	11.2
Manufacturing	*10.0*	*10.0*	*6.0*	*8.0*	*9.0*	*9.0*
Tertiary sector	3.5	4.5	6.8	5.1	6.0	6.2
Real GDP	5.6	5.8	6.0	5.9	6.1	6.3

(2) Alternative scenario

	2012	2013	2014	2015	2016	2017
Primary sector	5.1	5.3	6.1	6.5	6.6	6.9
Secondary sector	12.4	13.3	14.3	15.2	15.8	16.4
Manufacturing	*10.0*	*11.5*	*11.8*	*12.1*	*12.1*	*12.2*
Tertiary sector	3.5	5.9	5.9	6.4	6.4	6.5
Real GDP	5.6	6.0	6.6	7.2	7.6	8.1

Source: The Government of Togo, 2012, Accelerated Growth Strategy and Employment Promotion (SCAPE), 2013-2017

26.2 Long-Term Vision for Togo

(1) 20-Year Long-Term Vision for Togo

In accordance with the ” Strategy on Accelerated Growth and Employment Promotion for the period 2013-2017” the vision for Togo is “to join the ranks of the emerging countries in 15 to 20 years' time”. The main goals of the medium-term economic policy for the period 2013-2017 are “to lay and consolidate the foundations for Togo's future emergence”.

To achieve this future vision, Togo will have to transform the structure of its economy significantly so as to: (i) allow the secondary sector to re-emerge, particularly the manufacturing industry; (ii) intensify the primary sector; and (iii) change the tertiary sector from being largely informal toward more profitable, professionalized services. In parallel, it will have to achieve the status of a middle-income country, in which employment and income are better distributed and poverty is no more than residual. This industrialization effort will naturally be based on development of infrastructure, improvement of business climate, reduction in input costs, and a financial system that is more innovative and open to the world and fully assumes the mission of offering financial intermediation.

(2) Vision Togo 2030

Togo government launched the process of developing a new vision for the Togolese future in September 2015. A Workshop was organized on the Development Process "VISION 2030 TOGO" in December 2015. The Executive Summary of Diagnostic Systems in Togo in the Framework of the Prospective Study “Vision Togo 2030” was published in December 2015. However, the final version of Vision Togo 2030 has not been published yet.

26.3 National-Level Spatial Development Initiatives

To ensure the durability of rapid economic expansion, the Government of Togo will seek to base the foundations of growth on development hubs that are better distributed across the country and to consolidate Togo's sub-regional economic integration by effective implementation of the strategic concept of the development corridor.

The corridor's operational objectives are in partnership with private sectors:

- To rehabilitate or upgrade the infrastructure network along the main corridor, including road and rail connections between Togo and its neighbours;
- To optimize investment in the corridor area through new opportunities to be created by the rehabilitation or upgrading of infrastructure

- To optimize opportunities for social development and for market outlets, while encouraging participation by traditionally disadvantaged communities
- To reduce regional disparities and promote grassroots development.

26.4 Population Framework for Togo

According to the 2010 population census, the national population of Togo was 6,191,155. The total population in Togo has grown rapidly in the past decades, doubling its population in the three decades between 1981 and 2010. The annual growth rate of population has been approximately 2.9% between 1981 and 2010.

Table 26.4.1 Past Population of Togo by Region (1981 and 2010)

Region	Population		Increased Population	Annual Growth Rate
	1981	2010	1981-2010	1981-2010
Maritime Region	1,040,241	2,599,955	1,559,714	3.21%
Plateaux Region	650,393	1,375,165	724,772	2.62%
Centrale Region	273,138	617,871	344,732	2.85%
Kara Region	426,651	769,940	343,289	2.06%
Savenes Region	329,144	828,224	499,080	3.23%
Total	2,219,567	6,191,155	3,471,588	2.88%

Source: Direction Générale de la Statistique et de la Comptabilite Nationale[1], 2011, Résultats definitifs du RGPH 2010

26.4.1 Future Population Projection by INSEED

The National Institute for Statistics and Economic and Demographic Studies (INSEED: *Institut National de la Statistique et des Études Économiques et Démographiques*) projects the total Ghanaian population to be 9.8 million (high variant), 9.6 million (medium variant) and 9.3 million (low variant) in 2030.

26.4.2 Two Patterns of Regional Populations for Spatial Development of Togo under the Selected Sub-Regional Corridor Development Scenario

Under the selected growth scenario (Corridor Development oriented to Sub-Regional Markets) for sub-regional corridor development, two patterns of future population by region are proposed for Togo.

- Pattern 1: Balanced Development of Major Cities along North-South Corridors and the Coastal Corridor
- Pattern 2: Concentrated Development in the Coastal Corridor

The first one is a pattern which promotes development not only in Greater Lomé, but also in major cities, such as Atapamé, Sokodé, Kara and Dapaong. The other pattern assumes that extreme concentration will occur along the coastal corridor including Greater Lomé. Based on these two patterns, two population frameworks by region for Togo are prepared as shown in Table 26.4.2.

[1] Currently known as Institut National de la Statistique et des Etudes Economiques et Démographiques (INSEED)

Table 26.4.2 Two Patterns of Future Population by Region in Togo (Under the Selected Scenario: Scenario A)

Unit: thousand

Regions \ Alternative Patterns		Balanced Development of Major Cities along North-South Corridors and Coastal Corridor			Concentrated Development in the Coastal Corridor		
		2015	2025	2040	2015	2025	2040
Maritime	Population	3,043,022	4,116,071	6,296,295	3,046,651	4,154,763	6,478,404
	Annual Growth Rate		3.07%	2.87%		3.15%	3.01%
Plateaux	Population	1,568,267	2,043,203	2,998,273	1,565,616	2,015,376	2,882,032
	Annual Growth Rate		2.68%	2.59%		2.56%	2.41%
Centrale	Population	712,057	941,843	1,399,912	711,838	939,363	1,395,649
	Annual Growth Rate		2.84%	2.68%		2.81%	2.67%
Kara	Population	856,747	1,077,338	1,534,261	856,390	1,073,561	1,502,207
	Annual Growth Rate		2.32%	2.39%		2.29%	2.26%
Savenes	Population	970,380	1,314,550	1,993,810	969,976	1,309,941	1,964,260
	Annual Growth Rate		3.08%	2.82%		3.05%	2.74%
Togo	Population	7,150,472	9,493,005	14,222,551	7,150,472	9,493,005	14,222,551
	Annual Growth Rate		2.87%	2.73%		2.87%	2.73%

Source: JICA Study Team

26.4.3 Population Framework for Togo

The selected pattern (Balanced Development of Major Cities along North-South Corridors and the Coastal Corridor) for the population framework of Togo is shown in the table below.

The population of Togo is projected to be almost 9.5 million by 2025 and approximately 14 million by 2040.

The most populated region will continue to be the Maritime Region where Greater Lomé is located with a population of over 6 million in 2040. The Plateaux Region will also continue to be the second most populous region in Togo with almost 3 million people in 2040.

Table 26.4.3 Population Framework by Region for Togo

Unit: thousand

Region		2010 (Census)	2015	2020	2025	2030	2035	2040
Maritime	Population	2,599,955	3,043,022	3,547,461	4,116,071	4,758,475	5,484,081	6,296,295
	Annual Growth Rate		3.20%	3.12%	3.02%	2.94%	2.88%	2.80%
Plateaux	Population	1,375,165	1,568,267	1,789,970	2,043,203	2,328,767	2,646,963	2,998,273
	Annual Growth Rate		2.66%	2.68%	2.68%	2.65%	2.59%	2.52%
Centrale	Population	617,871	712,057	819,687	941,843	1,079,116	1,231,811	1,399,912
	Annual Growth Rate		2.88%	2.86%	2.82%	2.76%	2.68%	2.59%
Kara	Population	769,940	856,747	958,500	1,077,338	1,212,950	1,364,984	1,534,261
	Annual Growth Rate		2.16%	2.27%	2.37%	2.40%	2.39%	2.37%
Savenes	Population	828,224	970,380	1,132,205	1,314,550	1,518,653	1,745,272	1,993,810
	Annual Growth Rate		3.22%	3.13%	3.03%	2.93%	2.82%	2.70%
Togo	Population	6,191,155	7,150,472	8,247,824	9,493,005	10,897,961	12,473,111	14,222,551
	Annual Growth Rate		2.92%	2.90%	2.85%	2.80%	2.74%	2.66%

Source: JICA Study Team

Chapter 27 Corridor Development Plan for Togo

27.1 SWOT Analysis for Togo in relation to Corridor Development

A SWOT Analysis for Togo was conducted in relation to corridor development as shown in the table below.

The result of the SWOT Analyses for WAGRIC countries is presented in Chapter 3.

Table 27.1.1 SWOT Analysis for Togo

Strength	Weakness
• By taking advantage of the relatively small size of the country in terms of population (7.6 million in 2015) and territory (56,785 km^2), it is possible for Togo to implement ambitious projects of port development and road development with a limited amount of budget. • As a result, Togo has succeeded in formulating and implementing a logistics strategy in the context of the countries of Guinea Gulf. • Under the logistics strategy, Togo has established the role of Lomé Port as one of the leading transshipment hub ports for Guinea Gulf countries. • Together with the construction and operation of the highly modernized container terminal in Lomé Port, a "One Window System" is operational for import and export procedures, largely contributing to the reduction of corrupt conduct and reduction of time required for cargo handling. • The trunk road of the north-south corridor connecting Lomé Port and inland countries has been steadily strengthened by improvement of the pavement and by construction of bypass roads in mountainous areas. • With its proximity to Nigeria, as well as to Benin, Togo has developed inland fisheries and sales activities targeting at Nigeria's markets. Togolese people and businesses are interested in economic activities targeting at Nigeria's markets. • Since Togo's cash crops, such as coffee, coco and cashew, are produced by small-scale farmers, rather than by plantations, it is possible for Togolese agriculture to use productive methods specially for targeting at special needs markets, for example, markets of organically cultivated agricultural products. • Since Togo is located adjacent to Ghana, Burkina Faso, Niger and Nigeria, who compose a large consumer market of food crops, it is easier for Togo to produce and sell food crops to those neighbouring countries.	• Democratic elections for local assemblies have not been held yet in Togo. Establishment of a complete and stable democratic system might take time in Togo. As a result, foreign investors might not regard Togo as a stable and attractive country for their investment. • Since the trunk road of the north-south corridor (Lomé-Ouagadougou Corridor) does not have much domestic cargo demand, it has to depend mostly on external cargo demand of Togo (either from inland countries or from overseas countries). • Since neighbouring countries produce similar cash crops, such as cacao, coffee, oil palm and cashew, it is difficult for Togo to compete with them in terms of volume of production. • Productivity of agriculture is relatively low since utilization of agricultural machines and animals for cultivation is not so popular at present. • Since Togo does not have large cities and large-scale industries, it was not necessary to have large-scale power generation plants in the past. As a result, the cost for power generation within Togo is not low. Therefore, at present, stable and less costly power generation is not possible in Togo.
Opportunities	**Threat**
• Greater Lomé is located within the Abidjan-Accra-Lomé-Cotonu-Lagos Corridor. After a 50km section of coastal motorway is completed, along with development of infrastructure for electricity supply and water supply, Togo's Greater Lomé could become a strategic industrial location to attract foreign investment targeting at sub-regional markets, like the other large cities of Côte d'Ivoire and Ghana. • In the future, Greater Lomé would be able to play a role in manufacturing of intermediate products or spare parts to supply to Nigeria's large markets, especially Lagos, because some industrial products will be imported at Lomé Port and transported to Nigeria by road transport on the motorway. • Since over a half of the arable lands are not yet cultivated in Togo, it might be possible to expand agricultural production by utilizing agricultural machines. • It is possible to expand lands for agricultural production by effectively utilizing surface and ground water sources.	• Lomé Port has succeeded in becoming a leading hub sea port for transshipment and transit. There are possibilities for other ports of Guinea Gulf to adopt similar strategies like Lomé Port, including expansion of container terminals, strict adoption of a "One Window System." Because of such other ports' challenges, Lomé Port's position as a hub port might be threatened. • There is a risk that Togo also might be targeted by terrorist attacks by West Africa interior's terrorist groups. • Democratization movement against the present Togolese political system might destabilize the social and economic situation of Togo in the future. • If the on-going implementation of logistics strategies (based on Lomé Port and Lomé-Ouagadougou Corridor) is not able to widely benefit the society and economy, especially inland regions of Togo, it might lead to social unrest in the future. • As water demand increases due to population increase and economic growth, conflicts over water sources might increase in Togo.

Source: JICA Study Team

27.2 Objectives for Corridor Development in Togo

There are two types of corridor development that are possible in Togo. The one is north-south corridor development based on international transport corridors. The other is coastal corridor development based on the Abidjan-Accra-Lomé-Cotonu-Lagos transport corridor.

(1) Objectives for North-South Corridor Development in Togo

- To promote economic sectors development by utilizing north-south transport corridors
- To upgrade north-south corridor transport infrastructure in order to connect with Burkina Faso's transport corridor infrastructure in response to the increased corridor transport demand and for the purpose of promoting further development of the economic sectors in the northern part of the country
- To provide corridor infrastructure in order to widen the areas that can accommodate agricultural development in rural areas and manufacturing industrial development in inland regional cities
- To provide potential mineral sites with corridor infrastructure for the purpose of activating mineral resources development in inland Togo
- To contribute to wider spatial development by taking advantage of north-south corridor development within Togo

(2) Objectives for Coastal Corridor Development in Togo

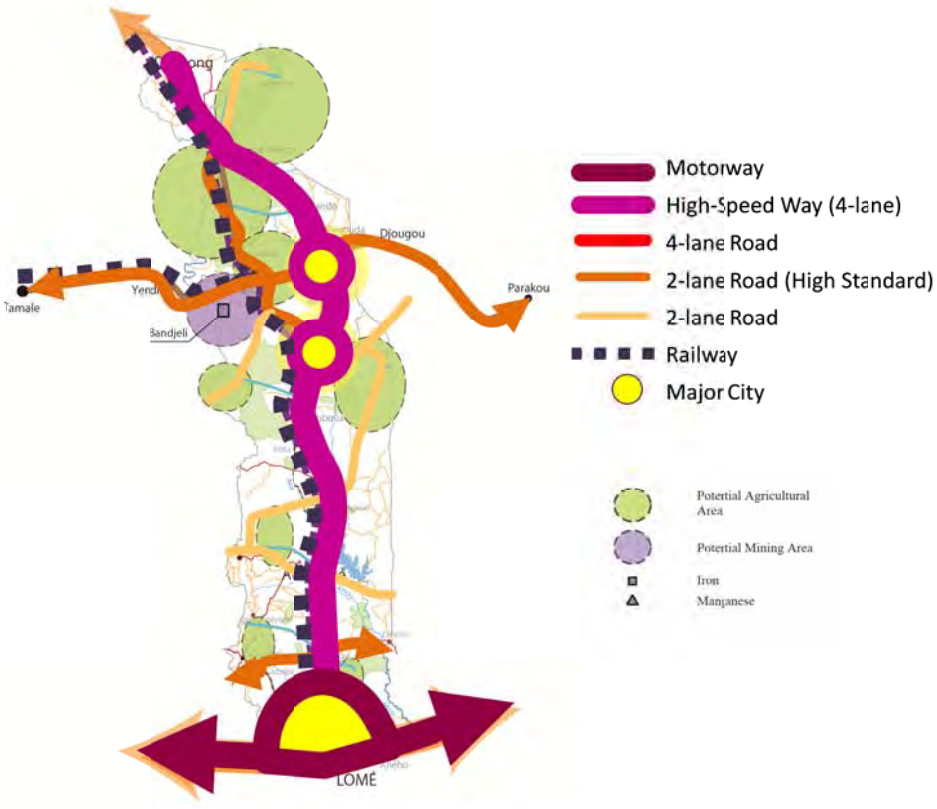
- To upgrade economic sectors development by utilizing the coastal Abidjan-Accra-Lomé-Cotonou-Lagos transport corridor by utilizing the benefits to be created by a customs union which will promote sub-regional economic integration
- To upgrade coastal corridor transport infrastructure in response to increased corridor transport demand and for the purpose of promoting further development of the economic sectors in metropolitan areas of Greater Lomé
- To provide infrastructure in order to widen areas that can accommodate not only manufacturing industrial development, but also ICT-BPO and other service sector developments in Greater Lomé
- To contribute to wider spatial development by taking advantage of coastal corridor development within Togo

27.3 Super-Long Term Pattern of Togo's Corridor Development

Based on the discussions through the meetings with Togo's stakeholders a corridor development pattern for the super long term (beyond year 2040) was prepared. The super-long term pattern of Togo's corridor development aims to achieve the following:

- Physical and economic sub-regional integration with Togo's surrounding countries including Benin
- Development of diverse economic sectors targeting both overseas markets and sub-regional markets
- Wide development in the country to improve the living standard of people in various areas of the country
- To secure high-speed transport corridors in order to attract investment in the various economic sectors

The infrastructures to be developed in the super long term are shown in the figure below.



Source: JICA Study Team

Figure 27.3.1 Togo's Super-Long Term Pattern of Corridor Development

27.4 Patterns for Corridor Development in Togo

Based on the super-long term corridor development pattern, alternative patterns for corridor development were prepared by selecting priorities to be achieved by the target year 2040

27.4.1 Patterns for Corridor Development in Togo for 2040

(1) Factors to Differentiate Corridor Development Patterns

In Togo, the following four types of factors to differentiate corridor development patterns are identified:

1) Types of Economic Sectors to be Promoted

- Economic Sectors Targeting Overseas Markets
- Economic Sectors Targeting the Markets of the Large Cities in the Neighbouring Countries
- Economic Sectors of Lomé (Advanced Services Sectors for National Markets and Manufacturing Sector targeting Sub-Regional Markets, as well as National Markets)
- Mining Sector and Agricultural Cash Crop Production Targeting Overseas Markets

2) Corridor Transport Infrastructure

- Development of corridor transport infrastructure to support the export to overseas.
  - ➢ Especially the north-south corridor connecting Ouagadougou and the Togolese hinterland in the north to Lomé Port and the coastal area.
- Development of corridor transport infrastructure to support the sales (export) to the large city markets in the neighbouring countries.

  - Development of a coastal transport corridor connecting Togo with Côte d'Ivoire, Ghana, and Benin is required for promoting the sales to the large city markets in the neighbouring countries.
- Development of urban infrastructure to support economic sectors in Greater Lomé

3) Economic Sector Development by Taking Advantage of Existing Corridor Infrastructure

- Major types of agricultural sectors in the northern part of Togo
  - Both development of medium and large-scale agriculture and agriculture-related sectors (agricultural production, processing and trading) and support to small-scale agriculture are to be equally promoted. The medium and large-scale agriculture businesses are based on foreign and domestic investment while promoting out-grower schemes.
  - Support to small-scale agriculture is emphasized with less reliance on foreign and domestic investment in the agricultural sector.
- Major economic sectors for regional cities in the northern part of Togo:
  - Manufacturing industries and ICT and BPO industries in addition to commerce and service sectors in well-targeted regional cities, namely Kara and Sokodé
  - Mostly commercial and service sectors to support regional cities but also their surrounding rural areas, as well as additional economic sectors of ICT and BPO
  - Iron ore mining in Bandjeli is to be supported by railway development between Lomé and Kabou
- Major economic sectors for coastal metropolitan areas along the coastal corridor, including Greater Lomé
  - To promote development of Greater Lomé by attracting and accommodating not only manufacturing industries and ICT and BPO sectors targeting sub-regional markets, but also advanced service sectors including sub-regional business functions, advanced financial services and international recreational services, in addition to the existing commerce and services

(2) Two Alternative Patterns for Corridor Development for Togo

In order to achieve development of the inland economic sectors (agriculture and agro-processing) and Greater Lomé's manufacturing and advanced services, the following two alternative patterns for corridor development in Togo are formulated:

- Togo's Corridor Development Pattern C-TG-1: Lomé-Kabou Railway Development for Iron Ore Exploitation and Lomé-Kara High-Speed Way Development, as well as Coastal East-West Motorway Development
- Togo's Corridor Development Pattern C-TG-2: Lomé-Cinkassé (National Border) Railway Development and Lomé-Sokodé High-Speed Way Development, as well as Coastal East-West Motorway Development

1) Togo's Corridor Development Pattern C-TG--1: Lomé-Kabou Railway Development for Iron Ore Exploitation and Lomé-Kara High-Speed Way Development, as well as Coastal East-West Motorway Development

Corridor Development Pattern C-TG-1 has the following characteristics in development of corridor infrastructure and economic sectors:

Economic Sectors

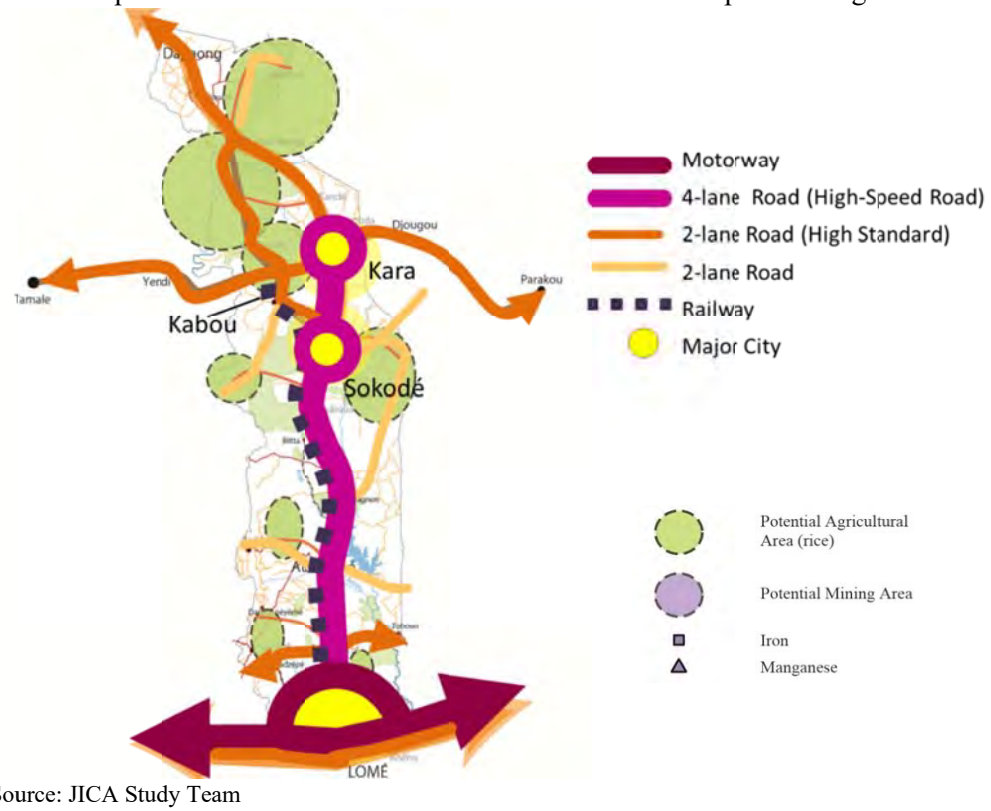
- Major types of agricultural sectors to be promoted in the central and northern parts of Togo: Medium and large-scale agriculture and agriculture-related sectors (agricultural production, processing and trading) targeting not only domestic markets but also sub-regional markets,

especially those of neighbouring countries, such as Ghana, Benin and Nigeria, by promoting foreign and domestic investment, as well as small-scale agriculture

- Manufacturing industries in addition to commerce and service sectors in well-targeted inland regional cities, namely Kara and Sokodé
- Mining in an inland area: Iron ore exploitation in Bandjeli should be revitalized by promotion of investment in construction and operation of a north-south railway for iron ore transport.
- Major economic sectors to be promoted for the coastal metropolitan area of Greater Lomé: Not only manufacturing industries targeting sub-regional markets, but also sub-regional business functions and advanced financial services, in addition to the existing commerce and services

Development of Transport Corridor and Economic Sectors

- Development of these economic sectors targeting domestic markets and sub-regional markets is promoted by strengthening of the north-south transport corridor and coastal east-west corridor.
- The north-south transport corridor is strongly supported by construction and operation not only of a high-speed motorway between Lomé and Kara, but also of a railway between Lomé and Kabou (near Bandjeli). This north-south railway development is intended for iron ore exploitation in Bandjeli Mine. At the northern end of the railway in Kabou, a multi-modal dry port is to be established for connecting between the railway transport and truck transport not only for the northern part of Togo, but also for Burkina Faso and inland countries.
- On the other hand, a high-speed motorway between Greater Lomé and Sokodé is to be developed to attract investment in the central and northern parts of Togo.



Source: JICA Study Team

Figure 27.4.1 Togo's Corridor Development Pattern C-TG-1 in 2040

2) Togo's Corridor Development Pattern C-TG--2: Lomé-Cinkassé (National Border) Railway Development and Lomé-Sokodé High-Speed Way Development, as well as Coastal East-West Motorway Development

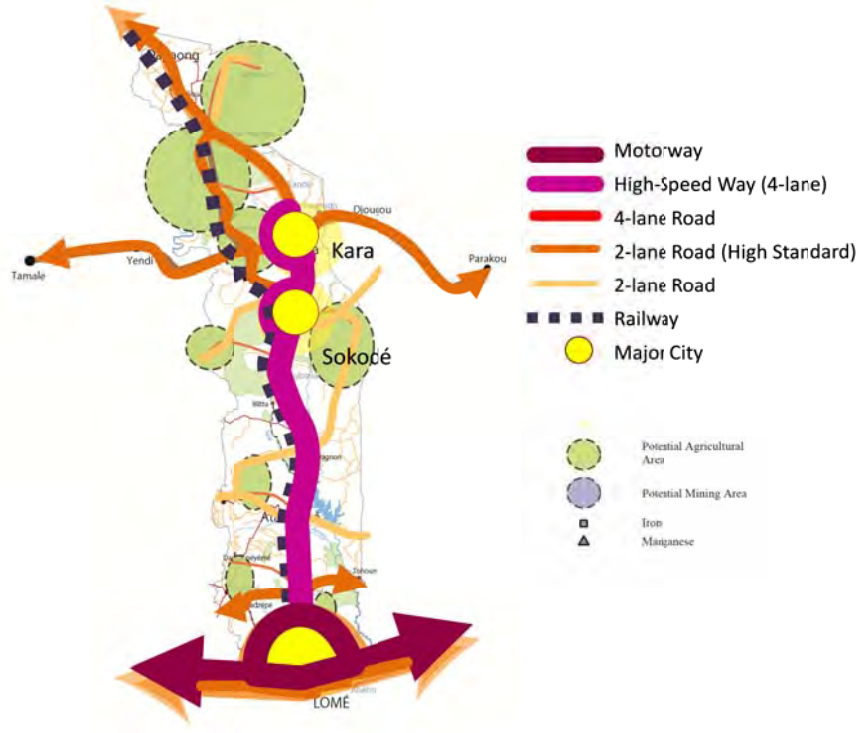
Corridor Development Pattern C-TG-2 has similar economic sectors to Pattern C-TG-1, as follows:

Economic Sectors

- Major types of agricultural sectors to be promoted in central and northern part of Togo: Medium and large-scale agriculture and agriculture-related sectors (agricultural production, processing and trading) targeting not only domestic markets but also sub-regional markets, especially those of neighbouring countries, such as Ghana, Benin and Nigeria, by promoting foreign and domestic investment, as well as small-scale agriculture
- Manufacturing industries in addition to commerce and service sectors in well-targeted inland regional cities, namely Kara and Sokodé
- Mining in an inland area: Iron ore exploitation in Bandjeli should be revitalized by promotion of investment in construction and operation of north-south railway for iron ore transport.
- Major economic sectors to be promoted for the coastal metropolitan area of Greater Lomé: Not only manufacturing industries targeting sub-regional markets, but also sub-regional business function and advanced financial services, in addition to existing commerce and services

In order to achieve the development of these economic sectors in inland and coastal areas, the following characteristics of spatial and corridor infrastructure:

- Railway is to be extended from Lomé Port up to Cinkassé (National Border). This railway development is intended to increase cargo demand for the railway, by connecting truck transport with rail transport. It is expected to increase cargo demand, including that of containers from Lomé Port to inland countries and live cattle from inland countries to coastal areas.
- High-speed Way is to be extended from Greater Lomé up to Sokodé, which is shorter than High-Speed Way of Scenario C-TG-1. This is because it is considered that it is possible to shorten travel time enough to attract investment by Lomé- Sokodé High-Speed Way.
- Coastal motorway connecting Lomé and its coastal neighbouring countries (Benin and Ghana) is to be established for expanding the economic zone reachable within 6 hours. This coastal transport corridor infrastructure could be the foundation to attract investment in manufacturing and advanced services sectors.



Source: JICA Study Team

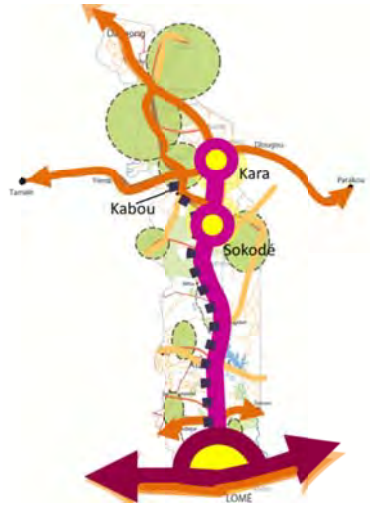
Figure 27.4.2 Togo's Corridor Development Pattern C-TG-2 in 2040

27.4.2 Comparison of Alternative Patterns for Corridor Development in Togo

The formulated alternative corridor development patterns (C-TG-1 and C-TG-2) in the previous section are compared from the following perspectives:

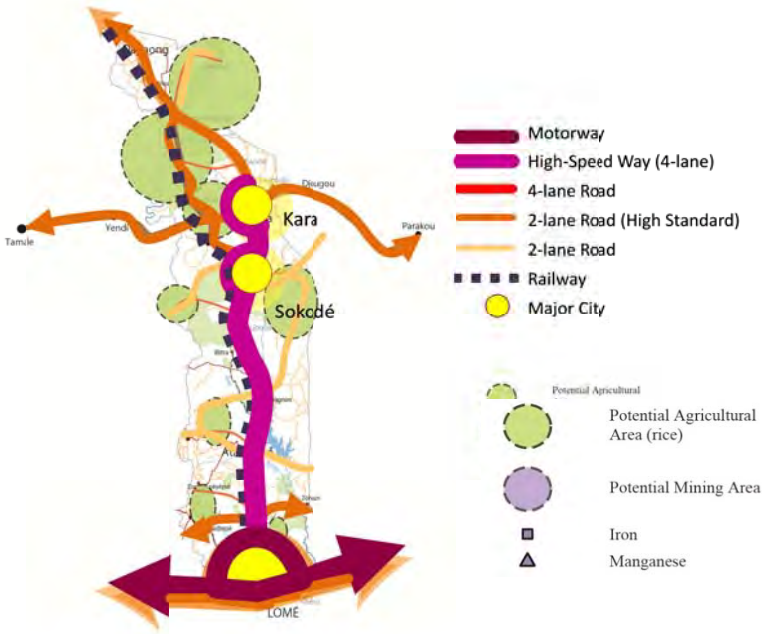
- Characteristics of Spatial Development
- Effect on Inland Development
- Cost Performance of Corridor Infrastructure Development for Promoting Target Economic Sectors Development

Table 27.4.1 Comparison of Alternative Patterns for Corridor Development in Togo

		Corridor Infrastructure	*Target Economic Sectors*
C-TG- 1		• High-Speed Way between Greater Lomé and Kara • Strengthening of north-south transmission line (Lomé-Kara-Dapaong) • North-south railway between Lomé and Kabou (near Bandjeli) • Multi-modal dry port in Kabou • This scenario would promote inland development because iron ore mining is possible • *Cost performance of railway development for transporting iron ore to Lomé Port is medium because multi-modal dry port in Kabou cannot attract so much truck transport.*	• Agricultural development is promoted in the central and northern parts by agricultural investment well supported by motorway. • Manufacturing industries (agro-processing) and commercial centre function in Kara and Sokodé (Industrial investment could be well supported by High-Speed Way.) • Iron ore mining in Bandjeli *(Mining development could be well supported by railway)* • Effect on inland development is supported by both high-speed road and railway. As a result, Scenario C-TG-1's effect on inland development is similar to that of C-TG-2.
C-TG-2		• High-Speed Way between Greater Lomé and Sokodé • Strengthening of north-south transmission line (Lomé-Kara-Dapaong) • North-south railway between Lomé and Cinkassé through Kabou (near Bandjeli) • Multi-modal dry port in Kabou • *Cost performance of railway extension from Kabou to Cinkassé is not good because the volume of container traffic related to inland countries is not large enough to make this railway extension feasible.* • *Cost performance of scenario C-TG-2 is better than Scenario C-TG-1 as railway is extended to the national border so as to attract more truck transport than C-TG-1.*	• Agricultural development in the central and northern parts *(Agricultural investment could be well supported by motorway)* • Manufacturing industries (agro-processing) and commercial centre function in Kara and Sokodé *(Industrial investment could be well supported by motorway)* • Iron ore mining in Bandjeli *(Mining development could be well supported by railway)* • Effect on inland development is supported by both high-speed road and railway. As a result, Scenario C-TG-2's effect on inland development is similar to that of C-TG-1.

27.5 Selected Pattern for Corridor Development in Togo

Following the selected growth scenario for sub-regional corridor development (Growth Scenario 1) and based on the evaluation of alternative corridor development patterns, Corridor Development Pattern **C-TG-2: "Lomé-Cinkassé (National Border) Railway Development and Lomé-Sokodé High-Speed Way Development, as well as Coastal East-West Motorway Development"** has been selected for the long-term future of Togo.



Source: JICA Study Team

Figure 27.5.1 Selected Corridor Development Pattern for Togo in 2040

27.6 Phased Corridor Development Plan for Togo

(1) North-South Corridor Development

In line with the selected **growth scenario for sub-regional corridor development (Growth Scenario 1)**, the following phased development strategies for corridor transport infrastructure and economic sectors are formulated:

- **In the short term (2017~2025) and medium term (2025~2033),** to promote economic sectors development in inland areas of Togo by improving north-south corridor transport infrastructure based on relatively well developed main central corridor (road) and by providing additional necessary infrastructure and supporting measures.
  - ➢ In order to induce development of potential economic sectors including:
    - o Improvement of east-west roads from the North-South Corridor for providing better access to agricultural potential areas
    - o Investment promotion and implementation of support projects for agricultural development including Agropoles of Kara and Oti in inland areas
    - o Investment promotion for manufacturing in Kara and Sokodé
    - o Investment promotion and implementation of support porjects for aquaculture at Nangbéto Dam and other potential areas
    - o Rehabilitation of agricultural market places to facilitate linkages with neighbouring countries in inland areas

- By improving the following north-south corridor transport infrastructure:
  - Upgrading the existing road to High-Speed Way (4-lane) between Lomé and Notsé including Tsevié Bypass in order to shorten travel time from coastal areas to inland areas, so that investment to inland areas would be promoted
  - Construction of Sokodé Bypass Road in order to contribute to the speed-up of travel time to inland areas, together with Lomé and Notsé High-Speed Way
  - Improvement of east-west road connecting Kara with east side national border and west side national boarder for facilitating trade with neighbouring countries
  - Construction of fibre optic cable from Lomé to Cinkassé
  - Development of railway from Lomé to Blitta
  - Development of multi-modal transport system for combining the existing railway with track transport by construction and operation of Multi-Modal Dry Port in Blitta
  - Functionalization of Kara regional airport (Lomé- Kara line)
- By improving and constructing the following Infrastructure projects for economic sector development
  - Improvement of Road of Tchitcho - Leon – Guerin-Kouka for Kara Agropole
  - Improvement of Road of Mandouri – Sansanne and Road of Sansanne – Mango – Bauré via Gando Namoni for Oti Agropole
  - Construction of Industrial Free Zone in Sokodé
  - Construction of Connecting Line between Togo's National Power Grid and Ghana's national power grid
  - Expansion of Kozah Hydro Power Plant
  - Construction of Hydro Power Dam and Power Generation Plant in Adjarala
- By upgrading basic urban Infrastructure with better public services
  - Upgrading of Kara University
  - Upgrading of University Hospital of Kara
  - Upgrading of Sokodé Hospital
- So as to induce the increase of transport demand for north-south corridor transport infrastructure

- **In the medium term (2025-2033),** to promote development of economic sectors targeting domestic markets within Togo by strengthening production, processing and marketing of crops (rice, soy bean and specialized crops marketable in the Greater Lomé area and the main cities along the central corridor)
  - In order to induce development of potential economic sectors by implementing the following:
    - Investment promotion for agricultural development including Agropoles in inland areas
    - Conducting support projects for
    - Support Project for Development for Mono Agropole (Water Resources Development and Logistics Centre)
    - Study on Development for Agropoles of Amou, Agou, Yoto and Bas-Mono
    - Investment Promotion for Manufacturing Industries in Sokodé and Kara
    - Investment Promotion for Aquaculture at Adjarala Dam
    - Support Project for Aquaculture Development at Adjarala Dam
    - Investment Promotion for Reactivating Bandjeli Iron Mine
    - Construction of Regional Markets at Kara and Sokodé
    - Development of Bandjeli Iron Mine

- Rehabilitation of Agricultural Markets Phase 2 (incluiding Anié, Gaando Namoni and Cinkassé)

➢ By improving the following north-south corridor transport infrastructure:
- Upgrading of North-South Road between Kara and Cinkassé
- Upgrading of North-South Road between Sokodé and Mango via Blitta
- Construction of Bypass Road for Kara
- Construction of High-Speed Way from Lome to Atakpamé
- Construction of Railway from Blitta to Kabou
- Construction and Operation of Multi-Modal Dry Port in Kabou
- Functionalization of Cinkassé OSBP

➢ By improving and constructing the following Infrastructure projects for Economic Sector Development
- Improvement of Road of Kembole – Issati –Moretan for Mono Agropole
- Construction of Industrial Free Zone in Kara
- Implementation of New Water Source Development for Kara

➢ So as to induce the increase of transport demand for north-south corridor transport infrastructure

- **In the long term (2034-2040),** to upgrade corridor transport infrastructure in response to transport demand to be increased by implementing strategies in the short and medium terms
  - ➢ By building the following north-south corridor transport infrastructure:
    - Construction of High-Speed Way from Atakpamé to Sokodé
    - Construction of Railway from Kabou to Cinkassé
    - Construction and Operation of Multi-Modal Dry Port in Cinkassé
  - ➢ To promote development of economic sectors targeted at sub-regional markets of the sub-regional coastal corridor (Abidjan-Accra-Lomé-Cotonu-Lagos Corridor) by upgrading coastal corridor transport infrastructure
  - ➢ In order to induce development of potential economic sectors including:
    - Investment promotion for development of agropoles in inland areas
    - Investment promotion of manufacturing in Kara and Sokodé

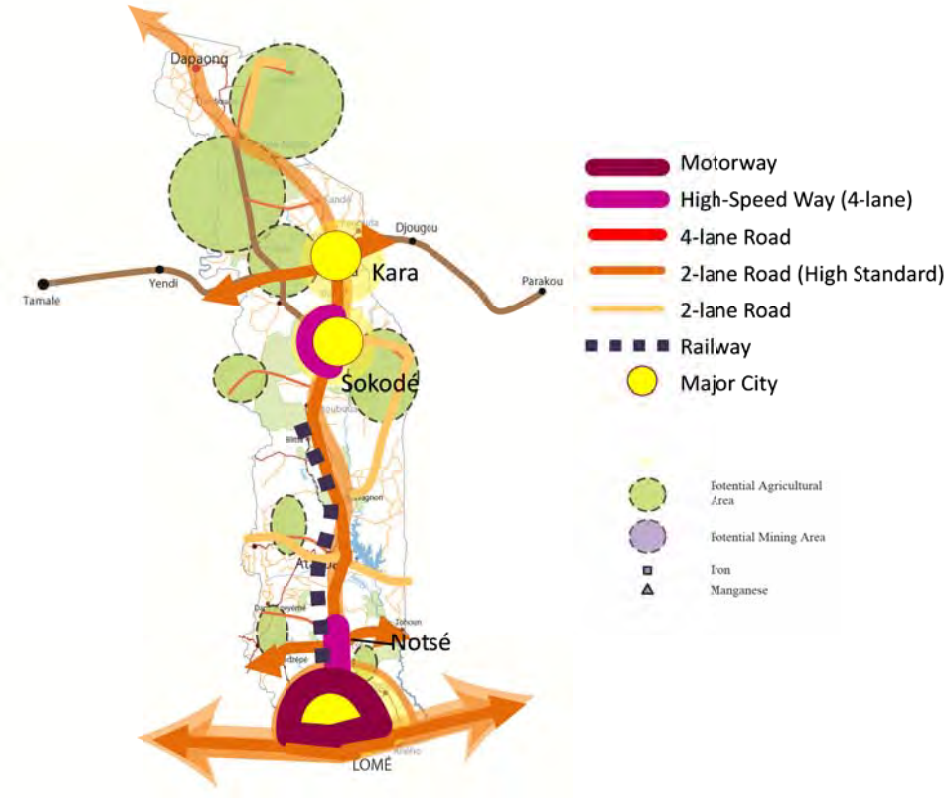
(2) Coastal Corridor Development

In line with the selected **growth scenario for sub-regional corridor development (Growth Scenario 1)**, the following phased development for corridor transport infrastructure and economic sectors is **Togo's coastal corridor development pattern**:

- **In the short and medium terms 2017-2025,** to promote economic sectors development in Greater Lomé area by improving coastal transport infrastructure based on relatively well developed coastal corridor (road) and by providing additional necessary infrastructure and supporting measures.
  - ➢ In order to induce development of potential economic sectors including:
    - Investment Promotion of Manufacturing and Logistics Industries in Greater Lomé
  - ➢ By improving the following north-south corridor transport infrastructure:
    - Promotion of land use restructuring of terminal and waterfront areas surrounding Lomé Port for effective port operation and for attracting enterprises of logistics industry and processing industry
    - Promotion of reduction of port charge at Lomé Port
    - Construction of logistic platforms (truck terminals) in a hinterland area of Lomé Port
    - Construction of Greater Lomé Sections of Abidjan-Lagos Motorway

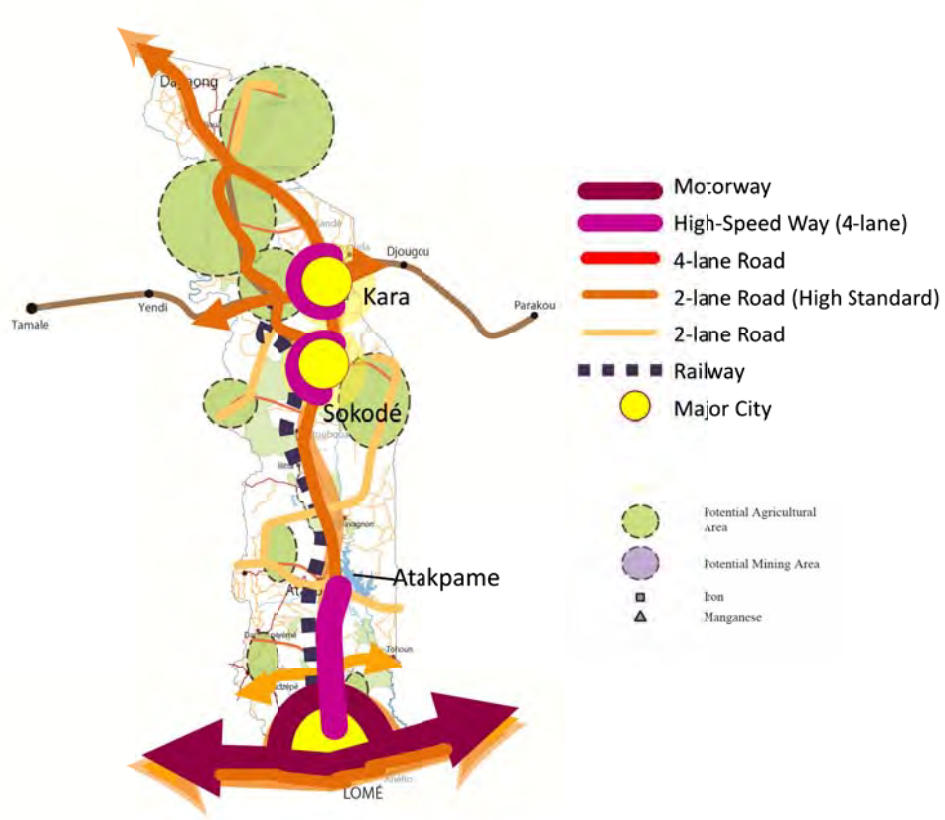
- So as to induce the increase of transport demand for north-south corridor transport infrastructure

- **<u>In the mid term 2026-2033,</u>** to promote development of economic sectors targeted at domestic and sub-regional markets of the neighbouring countries along the coastal corridor by strengthening production, processing and marketing of crops (rice, soy bean and specialized crops marketable in the coastal corridor)
  - In order to induce development of potential economic sectors including:
    - Investment Promotion for Manufacturing and Logistics Industries in Greater Lomé
  - So as to induce the increase of transport demand for coastal corridor transport infrastructure
- **<u>In the long term2034-2040</u>** to promote development of economic sectors targeted at sub-regional markets of the sub-regional coastal corridor (Abidjan-Accra-Lomé-Cotonu-Lagos Corridor)
  - In order to induce development of potential economic sectors including:
    - Investment Promotion of Manufacturing and Logistics Industries in Greater Lomé



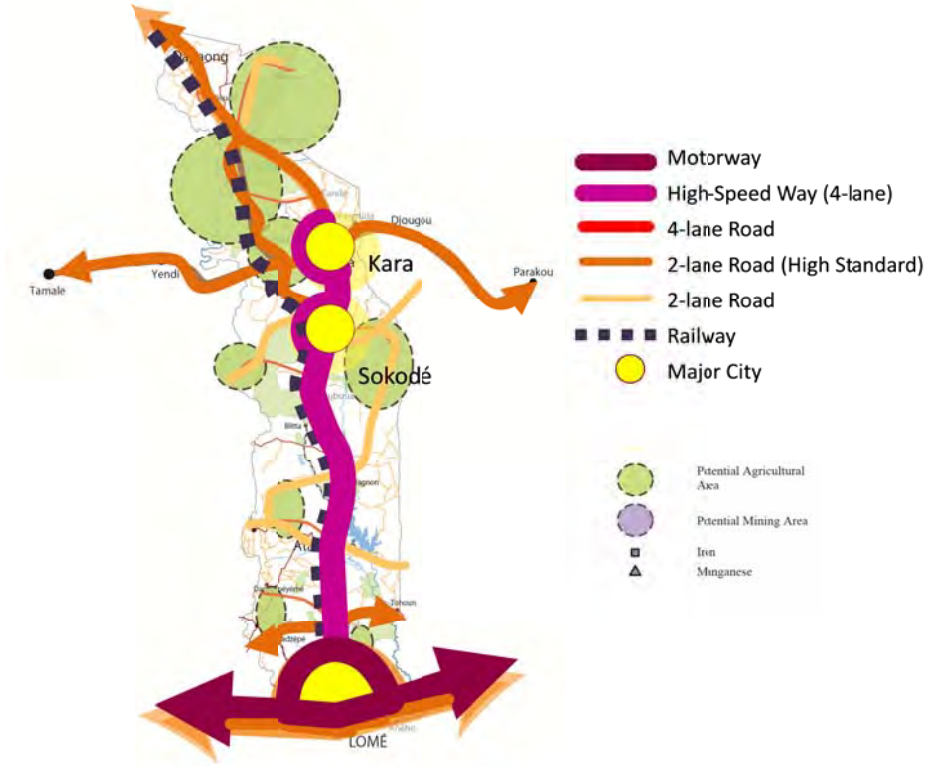
Source: JICA Study Team

Figure 27.6.1 Phased Development for North- South and Coastal Corridors in the Short Term for Year 2025



Source: JICA Study Team

Figure 27.6.2 Phased Development for North- South and Coastal Corridors in the Medium Term for Year 2033



Source: JICA Study Team

Figure 27.6.3 Phased Development for North- South and Coastal Corridors in the Long Term for Year 2040

27.7 Key Points for Togo's Corridor Development Plan

Togo's strength in corridor development is Lomé Port and Lomé-Ouagadougou Corridor. Lomé container terminal has attracted a large volume of transit cargo to landlocked countries since its open to the public in November 2014. In addition to the development of logistics businesses related to Lomé Port, Togo continues to develop a north-south road corridor of Lomé-Ouagadougou so as to develop logistics industries relying on road transport. However, countries of the Gulf of Guinea (Côte d'Ivoire, Ghana, etc.) have development plans for port expansion (Abidjan Port and Tem Port) in order to compete with the Lomé Container Terminal.

If the volume of cargo handling continues to increase at Lomé Port, traffic congestion might become more serious around the port. As a result, the competitiveness of both Lomé Port and the Lomé-Ouagadougou Corridor might be deteriorated.

However, although Togo's inland areas have agricultural development potential, it has been difficult for the inland areas to take advantage of Lomé Port and an improved road of Lomé -Ouagadougou Corridor.

Moreover, Greater Lomé is located the closest to Lagos among other major metropolitan areas along the Abidjan-Lagos Corridor, in addition to Lomé's competitive port. Therefore, Togo will be able to go beyond logistics and other service sectors, and to transform it to be a base for manufacturing sectors by taking advantage of its strategic location in the Abidjan-Lagos Corridor, when coastal metropolitan areas of Abidjan-Lagos Corridor participate in an international division of labour.

Given this situation, in order to initiate and drive corridor development, Togo should take the following measures by pushing the following three types of buttons:

[Button A]: By utilizing the strength of Lomé-Ouagadougou Corridor and Coastal Abidjan-Lagos Corridor, the development of economic sectors should be promoted in both inland areas and coastal areas, targeting sub-regional coastal markets, by making the following efforts:

- Promotion of agriculture in inland areas, targeting the sub-regional market by developing agro-poles in inland areas including infrastructure such as access roads and irrigation facilities to potential agricultural areas
- Promotion of agro-processing industries in inland areas by strengthening of infrastructure in Kara and Sokodé (major regional cities) including industrial parks
- Development of industrial and logistics parks in Greater Lomé by taking advantage of Abidjan-Lagos Coastal Motorway, which is to be developed

[Button B]: Sub-regional markets should be integrated and expanded for creating the enabling environment to attract investment to economic sectors oriented to sub-regional markets by taking the following actions:

- Strengthening of implementation of the Customs Union at national borders along Abidjan-Lagos Corridor
- Construction of strategically selected sections of the Coastal Motorway, especially the East-West Motorway in Greater Lomé, for strengthening of the logistics function and enhancing locational potentiality for manufacturing sectors in the mid and long terms

[Button C]: North-south connectivity should be strengthened for reducing transport costs and transport time for investment promotion to economic sectors in inland areas as follows:

- Improvement of traffic congestion in surrounding areas of Lomé Port for maintaining of the competitiveness of Lomé Port and Lomé-Ouagadougou Corridor
    - Development and operation of truck terminals near Lomé Port
    - Improvement of intersections near Lomé Port
    - Clearing of unnecessary land uses around Lomé Port

  - ➢ Construction of a new motorway up to a new international airport
- Phased upgrading of the north-south corridor road to a 4-lane high-standard road including the construction of 4-lane bypass roads on Lomé-Ouagadougou Corridor
- Phased development of railway between Lomé (Togo) and Cinkasé (Burkina Faso) for reducing long-distance cargo transport costs and by utilizing private sectors' initiatives of iron ore mining and transport for Banjeli

27.8 Priority Projects and High Priority Projects for Togo's Corridor Development

27.8.1 Priority Projects

There is a total of 76 projects selected as priority projects to be implemented between 2018 and 2040 for Togo.

Priority projects to achieve the selected scenario by phases are listed in

Table 27.8.1 through Table 27.8.3.

These priority projects are selected by using the following criteria:

- Those projects which are required for implementing the ten essential strategies
- Those projects which could initiate and drive corridor development in line with the selected growth scenario
- Those projects which needs proactive implementation, ahead of increased demand for infrastructure or production of economic sectors
- Those projects which are technically and institutionally implementable

By using these criteria, the priority projects are selected not only from newly formulated projects by WAGRIC Project, but also from existing prioritized projects by individual countries' governments.

Table 27.8.1 Short-Term Priority Projects for Togo (2018-2025)

Sector	Priority Project for Togo
Agriculture	Project for Reactivation of Planned Agricultural Zone Development (ZAAP)
	Project for Rehabilitation of Agricultural Markets Phase 1 (including Kétao and Guérin-Kouka)
	Support Project for Development for Kara Agropole (Water Resources Development and Logistics Centre)
	Support Project for Development for Oti Agropole (Water Resources Development and Logistics Centre)
	Support Project for Development for Mono Agropole (Water Resources Development and Logistics Centre)
Fishery	Support Project for Aquaculture Development at Nangbéto Dam
Manufacturing	Project for Construction of Industrial Park including Free Zone in Kara
	Project for Construction of Industrial Park including Free Zone in Sokodé
ICT	Project for Construction and Operation of Data Centre in Greater Lomé
	Project for Human Resourced Development for ICT Specialists
	Project for Improvement of ICT Connection (including Construction of Fibre Optic Cable from Lomé to Cinkassé)
Investment Promotion	Project for Promotion of Utilization of Principles of Responsible Investments to Agriculture, Livestock and Fisheries Sectors
	Investment Promotion for Development of Three Agropoles (Oti, Kara and Mono) in Inland areas
	Investment Promotion of Manufacturing and Logistics Industries in Greater Lomé
	Investment Promotion of Manufacturing in Kara and Sokodé
	Investment Promotion for Reactivating Bandjeli Iron Ore Mining and Railway Construction between Lomé and Kabou
	Investment Promotion for Aquaculture at Nangbéto Dam

Sector	Priority Project for Togo
Road	Projects for Improvement of Roads for Providing Better Access to Agricultural Potential Areas in Inland Areas • Improvement of Road of Borgou and Mango and Road of Baouré and Road of Mogou and Gando-Namoni for Oti Agropole • Improvement of Road of Tchitcho – Leon – Guérin-Kouka for Kara Agropole • Improvement of Road between Kambole – Bila - Goubi - Bagou - Issati –Moretan - Nyamassila for Mono Agropole • Improvement of Road between Kougnonhou and Atakpamé for Agricultural Potential Areas for Mini-Agropoles of Amou and Agou in Plateau Region • Improvement of Road between Atakpamé and Nangbéto Dam
	Projects for Construction of Abidjan-Lagos Motorway • Project for Construction of Greater Lomé Sections of Abidjan-Lagos Motorway
	Projects for Construction of Lomé New Airport Access Motorway • Project for Construction of Motorway between Lomé Bypass and New International Airport (including Tsévié Bypass)
	Projects for Upgrading to 4-Lane High-Speed Way in Lomé-Ouagadougou Corridor • Construction of 4-Lane High-Speed Way between Tsévié and Notsé • Construction of Sokodé Bypass Road as part of 4-Lane High-Speed Way
	Projects for Upgrading of East-West Roads • Project for Upgrading of East-West Road Connecting Kara with Kétao at East Side National Border (toward to Parakou of Benin) and with West Side National Border (toward to Yendi and Tamale of Ghana) • Project for Upgrading of East-West Road Connecting Notsé with East Side National Border (toward Bohicon of Benin) and with West Side National Border (toward to Ho of Ghana)
	Project for Reconstruction of Three Bridges of National Road No.1 for Strengthening of Lomé-Ouagadougou Corridor
Railway	Project for Construction of Railway from Lomé to Blitta
Sea Port	Promotion of Land Use Restructuring of Terminal and Waterfront Areas surrounding Lomé Port for Effective Port Operation and for Attracting Enterprises of Logistics Industry and Processing Industry
	Promotion of Reduction of Port Charge at Lomé Port
Logistics	Project for Strengthening of Implementation of Customs Union for Sub-Regional Products at National Borders
	Project for Operationalization of Cinkassé OSBP (National Border between Burkina Faso and Togo)
	Project for Operationalization of Noépé OSBP (National Border between Ghana and Togo)
	Project for Construction and Operation of Sanvee Condji – Hillacondji OSBP (National Border between Benin and Togo)
	Project for Construction and Operation of Logistic Platforms (Truck Terminals) in a Hinterland Area of Lomé Port
	Project for Construction and Operation of Multi-Modal Dry Port in Blitta
	Project for Construction and Operation of Logistic Platforms (Truck Terminals) in a Hinterland Area of Lomé Port
Air Transport	Project for Functionalization of Kara Regional Airport by Operationalizing Lomé- Kara Line)
Electricity	Project for Construction of 161kV Interconnection Line (Porga-Kompienga) with Burkina Faso
Water Resource	Sogakope – Lomé Transboundary Drinking Water Supply Project
	Study for New Water Source Development including Zio Dam and Conveyance from Mono River for Lomé Water Scheme
	Project for Expansion of Water Treatment Plant at Kozah Dam for Kara

Source: JICA Study Team

Table 27.8.2 Medium-Term Priority Projects for Togo (2026-2033)

Sector	Priority Project for Togo
Agriculture	Continuation of Support Projects for Development of Agropoles of Oti, Kara and Mono
	Study on Development for Agropoles of Amou, Agou, Yoto and Bas-Mono
	Support Project for Development of Agropoles of Amou, Agou, Yoto and Bas-Mono
	Rehabilitation of Agricultural Markets Phase 2 (including Anié, Gaando Namoni and Cinkassé)
Fishery	Support Project for Aquaculture Development at Adjarala Dam
Mining	Development of Bandjeli Iron Mine
Manufacturing	Project for Construction of Industrial and Logistics Zone along Motorway in Greater Lomé
Investment Promotion	Investment Promotion for Reactivating Bandjeli Iron Mine
	Investment Promotion for Development of Agropoles and Mini-Agropoles in Inland Areas
	Investment Promotion for Manufacturing Industries in Sokodé and Kara
	Investment Promotion for Manufacturing and Logistics Industries in Greater Lomé
	Investment Promotion for Aquaculture at Adjarala Dam
Road	Projects for Improvement of Roads for Providing Better Access to Agricultural Potential Areas • Improvement of Road of Bassar – Mô – Tindjasse – the Western National Border with Ghana for Agricultural Potential Areas in Mô Valley of Central Region
	Projects for Improvement of North-South Road between Sokodé and Bassar
	Projects for Improvement of North-South Road between Kabou and Sansanné Mango
	Projects for Construction of Abidjan-Lagos Motorway • Project for Construction of Togo's Central and Eastern Sections of Abidjan-Lagos Motorway
	Projects for Construction of 4-Lane High-Speed Way • Construction of Kara Bypass Road as part of 4-Lane High-Speed Way • Construction of 4-Lane High-Speed Way from Notsé to Atakpamé including Atakpamé Bypass
	Projects for Improvement of Road between Kougnonhou and Nyamassila for Agricultural Potential Areas in Plateau Region
Railway	Project for Construction and Operation of Railway from Blitta to Kabou
Logistics	Strengthening of Implementation of Customs Union for Sub-Regional Products at National Borders
	Strengthening of Operation of Cinkassé OSBP (National Border between Burkina Faso and Togo)
	Strengthening of Operation of Noépé OSBP (National Border between Ghana and Togo)
	Strengthening of Operation of Sanvee Condji – Hillacondji OSBP (National Border between Benin and Togo)
	Strengthening of Operation of Noépé OSBP at the National Border with Ghana
	Strengthening of Operation of Sanvee Condji – Hillacondji OSBP at the National Border with Benin
	Project for Construction and Operation of Multi-Modal Dry Port in Kabou
	Strengthening of Operation of Cinkassé OSBP at the National Border with Burkina Faso
Electricity	Project for Construction of Adjarala Dam and Hydropower Plant
	Project for Construction of Tetetou Dam and Hydropower Plant
Water Resource	Project for New Water Source Development for Greater Lomé
	Project for New Water Source Development for Kara

Source: JICA Study Team

Table 27.8.3 Long-Term Priority Projects for Togo (2034-2040)

Sector	Priority Project for Togo
Agriculture	Continuation of Support Projects for Agropoles and Mini-Agropoles in Inland Areas
	Rehabilitation of Agricultural Markets Phase 3 (including Tchamba and Bassar)
Investment Promotion	Investment Promotion for Development of Agropoles and Mini-Agropoles in Inland areas
	Investment Promotion of Manufacturing and Logistics Industries in Greater Lomé
	Investment Promotion of Manufacturing in Kara and Sokodé
Road	Project for Construction of 4-Lane High-Speed Way from Atakpamé to Kara
Railway	Project for Construction and Operation of Railway from Kabou to Cinkasé of Burkina Faso
Logistics	Project for Construction and Operation of Multi-Modal Dry Port in Cinkasé of Burkina Faso

Source: JICA Study Team

27.8.2 High Priority Projects

Out of priority projects formulated and shown in the above sections, the thirty priority projects are selected as "High Priority Projects" for achieving the selected Scenario **C-TG-2: "Lomé-Cinkassé (National Border) Railway Development and Lomé-Sokodé High-Speed Way Development, as well as Coastal East-West Motorway Development."**

Outlines, funding schemes and estimated project costs of the high priority projects are shown in Table 27.8.4.

Table 27.8.4 Outlines of High Priority Projects for Togo

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
1	A	1	Support Project for Development for Kara, Oti and Mono Agropoles (Water Resources Development and Logistics Centre)	ODA Technical Assistance & ODA Grant	US$ 155 million

Project Outline

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan points out the importance of targeting sub-regional markets, especially the growing middle income populations in coastal areas.

Togo's inland areas have potential agricultural areas, which are accessible from the road of the Lomé-Ouagadougou Corridor. Togo's Ministry of Agriculture, Livestock and Hydraulics (MAEH) has prepared integrated regional economic development projects with a focus on agriculture and infrastructure development for growth poles called "Agropoles."

The project aims to provide support to implementation of Agroploe Development in the following three priority agroples:

- Kara basin in Kara Region;
- Oti basin in the Savannah Region; and
- Headwaters of the Mono basin, located in the Central and Plateaux Regions.

The projects are to consist of four components, namely, i) infrastructure development, ii) support for private Initiative development, iii) reinforcement of capacities and iv) project management.

Kara Agroplole has the following target crops, livestock and fish:

- Targeted Crops: Sesame, Ground nuts (for export), Rice (for domestic supply)
- Targeted Livestock: Poultry (for domestic supply), Guinea fowl, Pigs
- Target Fish: Catfish (for export)

Oti Agropole has the following target crops and livestock:

- Target crops: Rice, Sugar cane, (mostly for domestic supply)
- Target livestock: Guinea fowl (pintade), Cattle (for domestic supply)

Mono Agropole has the following target crops:

- Target crops: Soy bean, Cashew nuts, Sesame (for export)

The rehabilitation or development of rural roads and irrigation are indispensable for the agropole development. This will be done by the government. On the other hand, development and improvement of extension service, post-harvest, processing and trading are expected to be implemented by the private sector. Other cross-sectoral activities, such as training and research, mobilization and awareness making of producers and establishment of service centres are also planned.

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
2	A	1	Project for Construction of Industrial Park along the Motorway in Greater Lomé	ODA Loan or PPP	US$ 70 million

Project Outline

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT.

Considering the current economic and infrastructure situation, the government policies are based on the understanding that Togo should seek strengthening of service industries, including logistics. However, in accordance with the SCAPE (Togo's national development plan), development of the manufacturing sector is one of the pillars for national development.

The Ministry of Commerce, Industry Private Sector Promotion and Tourism has a plan for developing industrial parks with export processing zones in the following locations:

- Adetikopé Free Zone (80 ha) : 18 km from Lomé
- Tsévié Free Zone (100 ha): 32 km from Lomé
- Kanykpedji Free Zone (200 ha): 55 km north of Lomé

The Agency for Investment Promotion and Free Zones (API-ZF. *Agence de Promotion des Investissements et des Zones Franches*) is in charge of implementation of the projects for construction and management of industrial parks, by utilizing a PPP scheme.

Greater Lomé is one of the important industrial centres in the country. The population of Greater Lomé was 2.0 million in 2015. It is forecast that Greater Lomé's population is to be 5.0 million by 2040.

The project aims to construct and manage an industrial and logistics park, which is to be located along the prospective sections of the Abidjan-Lagos Motorway. This project is based on the strategic location of Greater Lomé that is not only close to Greater Accra (197 km from Lomé), but also to Greater Lagos (273 km from Lomé).

The project will start with land of 100 ha at the initial phase. Then this project will continue to expand its size of industrial park up to 500 ha or more, for the purpose of attracting manufacturing and logistics industries. The project will provide divided lots with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park.

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
3	A	1	Project for Construction of Industrial Park in Kara	ODA Loan	US$ 25 million

Project Outline

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT.

The population of Kara City was 117,000 in 2015. It is forecast that Kara's population is to be 334,000 by 2040. Kara is located on the Lomé-Ouagadougou Corridor. By upgrading of the road of the Lomé-Ouagadougou Corridor, and by providing economic infrastructures, Kara will be able to play a role of one of the major regional centres and agricultural, industrial, logistical, and commercial centres in the northern areas of Togo.

The project aims to construct and manage an industrial park in Kara for the purpose of attracting investment for manufacturing sectors including agro-processing industries utilizing local products. The project will provide divided lots

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park. The Agency for Investment Promotion and Free Zones (API-ZF) will be in charge of developing the industrial park (35 ha) in Kara by promoting a PPP scheme.					
4	A	1	Project for Construction of Industrial Park in Sokodé	ODA Loan	US$ 25 million
Project Outline The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT. The population of Sokodé City was 119,000 in 2015. It is forecast that Sokodé's population is to be 343,000 by 2040. Sokodé is located on the Lomé-Ouagadougou Corridor. By upgrading of the road of the Lomé-Ouagadougou Corridor, and by providing economic infrastructures, Sokodé will be able to play a role of one of the major regional centres and agricultural, industrial, logistical, and commercial centres in the northern areas of Togo. The project aims to construct and manage an industrial park in Sokodé for the purpose of attracting investment for manufacturing sectors including agro-processing industries utilizing local products. The project will provide divided lots with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park. The Agency for Investment Promotion and Free Zones (API-ZF) will be in charge of developing the industrial park (35 ha) in Sokodé by promoting a PPP scheme.					
5	A	2	Investment Promotion for Economic Sectors targeting Sub-Regional Markets	ODA Technical Assistance	US$ 4 million
Project Outline Private investment has been attracted mostly to the mining sector in Togo. However, not much attention has been paid to the growth potential of Togo's economic sectors targeting coastal markets in the sub-region. By taking advantage of the possibility to integrate and expand the size of sub-regional consumers' markets, it is possible for the Agency for Investment Promotion and Free Zones (Agence de Promotion des Investissements et des Zones Franches, API-ZF) to attract investment to economic sectors targeting sub-regional consumers' markets. Such target economic sectors include those of agriculture, fisheries and agro-processing. The project aims to making a clear shift of investment promotion toward economic sectors orientated to sub-regional markets. For this purpose, the project will prepare new promotion materials, provide training to related agencies and personnel and implement actual activities for investment promotion.					

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
6	A	3	Projects for Improvement of Roads for Providing Better Access to Potential Agricultural Areas in Inland Areas (for Kara, Oti and Mono Agropoles)	ODA Grant	US$ 475 million

Project Outline

The size of the coastal consumers' markets is increasing within Togo, and neighbouring coastal markets are expected to become integrated with Togo within the sub-region through the customs union. Because of this situation, Togo, as well as other WAGRIC countries, has the potential to develop economic sectors, both in coastal areas and inland areas, targeting these integrated and expanded coastal markets of the sub-region. Moreover, the roads of Lomé-Ouagadougou Corridor are relatively good and usable for promoting inland development, while the WAGRIC Master Plan strongly recommends the upgrading of the existing roads of Lomé-Ouagadougou Corridor to high-standard four-lane roads.

The WAGRIC Master Plan points out the possibility to attract investment to agriculture by providing improved access roads to potential agricultural areas, as well as by providing other infrastructure, such as irrigation schemes.

The projects aim to improve the following access roads to three agropoles (Oti, Kara and Mono agropoles), which are prioritized potential agricultural areas:

- Improvement of Road of Borgou and Mango and Road of Baouré and Road of Mogou and Gando-Namoni for Oti Agropole
- Improvement of Road of Tchitcho – Leon – Guérin-Kouka for Kara Agropole
- Improvement of Road between Kambole – Bila - Goubi - Bagou - Issati –Moretan - Nyamassila for Mono Agropole
- Improvement of Road between Kougnonhou and Atakpamé for Agricultural Potential Areas for Mini-Agropoles of Amou and Agou in Plateau Region
- Improvement of Road between Atakpamé and Nangbéto Dam
- Improvement of Road of Bassar – Mô – Tindjasse – the Western National Border with Ghana for Agricultural Potential Areas in Mô Valley of Central Region

These projects are in line with the national policy on agropole development of Togolese government.

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
7	A	3	Project for Construction of Adjarala Dam and Hydropower Plant	ODA Loan	US$ 400 million

Project Outline

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply and industrial parks.

The power demand in Togo has steadily increased due to Togo's economic growth. In fact, the annual growth rate of the peak demand for 2014 in Togo was approximately 12%. This was the highest level of annual growth rate among the WAGRIC countries.

About 70% of power demand was satisfied by the Togolese power plants. Approximately 30% of the power demand is met by importing from Côte d'Ivoire through Ghana and Nigeria. However, due to the unstable power supply, especially from Nigeria, it is required for Togo to improve the quality of its power supply.

Policies for development of Togolese power systems place great importance on attracting both foreign and domestic investors for establishing power plants. While an electricity company (CEB) supplies electricity to Togo and Benin, the national economies of the two countries are not large enough to build a large thermal power generation using imported fuels. Therefore, it is necessary for Togo to utilize its natural sources of energy for power generation and to reduce the financial burden on power consumers. The water resources that could be utilized are found in the mountainous areas

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
located in the eastern part of Togo. Currently Togolese government's power development strategy focuses on the hydroelectric potential in the Mono river basin. The project aims to construct Adjarala Dam (40-meter-tall rock and earth dam) on the Mono River, a hydropower plant (147 MW) and a transmission line for increasing Togo's own power generation.					
8	A	3	Project for Construction and Management of Data Centre in Lomé	ODA Technical Assistance & ODA Grant	US$ 15 million
Project Outline The WAGRIC Master Plan points out the importance of developing economic sectors targeting sub-regional markets, especially the growing middle-income populations in coastal areas. The WAGRIC Master Plan pays attention to both inland areas and coastal areas for developing economic sectors. Information and Communication Technology (ICT) is an important growth driver among the economic sectors to promote economic development, as well as to support various other sectors. ICT infrastructure is one of the most important corridor infrastructures when it comes to high speed transport and services for strengthening the north-south connectivity between inland areas and coastal areas. It is essential to attract investments to economic sectors in inland areas, as well as in coastal areas. The project aims to establish a data centre located in Greater Lomé. The data centre will provide a back-up of international standards of security and accommodate a large volume of data and computer applications in an environment with strict standards. The data centre is to provide various types of ICT services not only to the public sector, but also to private sector entities. The data centre will be the nerve centre of the government intranet, especially in the context of prospective development of e-Government. This type of ICT-related facility is also important for providing job opportunities for ICT specialists.					
9	B	4	Strengthening of Implementation of Customs Union for Sub-Regional Products at National Borders	ODA Technical Assistance	US$ 4 million
Project Outline In addition to logistics industry and export of primary commodities (minerals and agricultural products), it is necessary for Togo to diversify economic sectors. The WAGRIC Master Plan recommends paying attention to the potential of economic sectors both in coastal areas and inland areas, by targeting growing sub-regional markets and taking advantage of the customs union which has been institutionalized by UEMOA and ECOWAS. For this purpose, it is necessary to strengthen the implementation of the customs union by taking advantage of the customs union, which has been institutionalized by the member countries of UEMOA and ECOWAS. The project aims at enforcement of implementation of the customs union and trade facilitating for sub-regional products with neighbouring countries of the sub-region, especially with Ghana and Benin, along Abidjan-Lagos Corridor. The project will be applied to the national border with Burkina Faso along Lomé-Ouagadougou Corridor. The project will establish new materials for training and train related agencies and personnel. Campaigns for customs union trade facilitation of sub-regional products will also be implemented together with WAGRIC countries and its surrounding countries under this project.					

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
10	B	5	Project for Construction of Greater Lomé Sections of Abidjan-Lagos Motorway	ODA Loan	US$ 294 million

Project Outline

Togo's potential to develop economic sectors is limited in the case of targeting its own domestic consumers' markets. However, such potential would be enhanced greatly by targeting the sub-regional markets through integration with neighbouring countries' markets. This market integration will become possible by upgrading transportation along the coastal east-west corridor (Abidjan-Lagos Corridor), as well as strengthening of implementation of the customs union.

The upgrading of transportation along Abidjan-Lagos Corridor would become possible by construction of strategically selected sections of the Abidjan-Lagos Motorway. The WAGRIC Master Plan strongly recommends locating the route of the Abidjan-Lagos Motorway Sections of Togo closer to the urbanization areas of Greater Lomé as much as possible.

The most important section of the Abidjan-Lagos Motorway for Togo is the motorway sections between the national border of Noepe and northern part of Greater Lomé.

The project aims to construct the sections (30km) of Greater Lomé of the Abidjan-Lagos Motorway for the following purposes:

- To connect the central area of Greater Lomé with Noepe, (national border with Ghana) on the Abidjan-Lagos Corridor
- To connect the central area of Greater Lomé with Togo's eastern part of the coastal area on the Abidjan-Lagos Corridor

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
11	C	6	Investment Promotion for Reactivating Bandjeli Iron Ore Mining and Railway Construction between Lomé and Kabou (410 km)	PPP	US$ 1,214 million

Project Outline

The WAGRIC Master Plan points out the importance of economic sectors targeting sub-regional markets for seeking balanced development between inland areas and coastal areas. However, at the same time, it is important for individual countries of the WAGRIC Sub-Region to expand the production of primary commodities, such as minerals and agricultural products.

Bandjeli has 800 million tons of iron ore deposits. Annual production of iron ore from Bandjeli Mine might be 100,000 tons per year. Currently the exploitation of iron ore has been stopped due to low metal prices. The government has considered removing some portion of the exploitation license from the current concessioner.

The project aims to attract private investment to revitalize the operation of Bandjeli Iron Mine and to facilitate a PPP scheme for constructing a railway between Lomé and Kabou and a railway between Kabou and Bandjeli Mine

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
12	C	7	Construction of Sokodé Bypass Road as part of 4-Lane High-Standard Road (10km)	ODA Grant	US$ 53 million

Project Outline

The WAGRIC Master Plan recommends establishing high-speed transportation in the north-south corridor for strengthening the connectivity between inland areas and coastal areas. The north-south high-speed transportation is important for attracting investment to economic sectors targeting sub-regional markets, while the establishment of efficient and low-cost cargo transportation in the north-south corridor is required for establishing an enabling environment for competitive business operation.

The government of Togo started upgrading the national road to a high-standard four-lane road from Lomé toward Atakpamé, including providing by-pass roads.

In response to the prospective increase of road traffic on the Lomé-Ouagadougou Corridor, as well as within Sokodé, it will be necessary to extend the four-lane high-standard road on the Lomé-Ouagadougou Corridor for shortening the travel time between inland areas and coastal areas. This kind of high-speed transportation is necessary to attract investment in the agriculture and agro-processing sectors in inland areas, especially those targeting coastal markets.

The population of Sokodé was 119,000 in 2015. It is forecast to be 343,000 by 2040. Together with Kara, Sokodé is expected to play an important role as a major regional city and economic centre accommodating agro-processing industries and commercial/service functions.

The project aims to construct a 4-lane high-standard bypass road (about 10km) for Sokodé. Along the Sokodé Bypass Road to be constructed by this project, land development is possible for industrial and logistics land use.

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
13	C	7	Project for Construction of Motorway between Lomé Bypass and New International Airport (including Tsévié Bypass)	ODA Loan or PPP	US$ 153 million

Project Outline

The WAGRIC Master Plan recommends establishing high-speed transportation in the north-south corridor for strengthening the connectivity between inland areas and coastal areas. The north-south high-speed transportation is important for attracting investment to economic sectors targeting sub-regional markets, while the establishment of efficient and low-cost cargo transportation in the north-south corridor is required for establishing an enabling environment for competitive business operation.

The government of Togo started upgrading the national road to a high-standard four-lane road from Lomé toward Atakpamé, including providing by-pass roads. In response to the prospective increase of road traffic on the Lomé-Ouagadougou Corridor, as well as within the Greater Lomé, it will be necessary to construct a motorway from Lomé to Tsévié for the following two purposes:

- To create another exit road from Greater Lomé to the north
- To provide high-speed transportation from the central area of Lomé to the new International Airport, which is planned near Tsévié for the future

This kind of high-speed transportation is necessary to attract investment for the economic sectors in inland areas, especially those targeting coastal markets. In addition to reduction of travel time, the extension of a high-standard road could reduce vehicle costs.

No.	Buttons	Essential Strategies	Projects	Funding Scheme	Estimated Cost
14	C	7	Project for Construction of Optic Fibre Cable in the North-South Corridor	ODA Loan	US$ 40 million

Project Outline

The WAGRIC Master Plan points out the importance of developing economic sectors targeting sub-regional markets, especially the growing middle-income populations in coastal areas. The WAGRIC Master Plan pays attention both to inland areas and coastal areas for developing economic sectors.

Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT infrastructure.

Moreover, ICT infrastructure is one of the important corridor infrastructures when it comes to high speed transport and services for strengthening of north-south connectivity between inland areas and coastal areas. It is essential to attract investments to economic sectors in inland areas, as well as in coastal areas.

The project aims to extend and strengthen the optic fibre cable in the north-south corridor (Lomé-Ouagadougou Corridor).

			Total		US$ 2,921 million

Chapter 28 Development Strategies for Economic Sectors of Togo

28.1 Agriculture Sector of Togo

28.1.1 Present Situation and Future Prospects of Agriculture Sector of Togo

Agriculture plays the most important role in the economy of Togo, which always produces over 40% of GDP and employs 70% of the economically active population in the country and 90% in rural areas. It is said that the agricultural production, in particular cereals and food crops, are in oversupply. Moreover, underused arable land still exists, so the agriculture still has a big potential to increase its production and even supply food to other neighbouring countries, but as yet, not many private investors have not participated. However, the traditional rain-fed and manual agriculture is still the majority, accounting for more than 85% of all crops grown. This means that the agricultural production is dependent on the environmental conditions and rainfall; some areas produce more crops than are consumed, while other areas always suffer from poor harvest. Some areas are isolated and it is hard for the producers to gain access to the markets due to lack of rural/regional roads.

Even though the country is conveniently located between big food consumer countries, it always happens that food produced in this country flows informally right after harvest time to the big consumer countries such as Côte d'Ivoire, Ghana and Nigeria due to the lack of accessible logistical infrastructure for trading agricultural products properly. Thus, the food supply is unbalanced in the country, and the related industry is hard to develop. In consequence, the sector has not contributed to the national and rural economic development sufficiently. In order to improve the current situation and to develop the agricultural sector rapidly, the government of Togo worked out a new agricultural policy for the period 2016-2030 called PA-PSTAT2030 (*Politique Agricole assortie d'un Plan Stratégique pour la Transformation de l'Agriculture à l'Horizon 2030*). Aiming at food security and properly balancing agricultural trade, the government is to create a favourable environment for agricultural production and business such as rural infrastructures, access facilitation of inputs and technology and set up related financial and informatics services.

As an important player, the private *sector* should be involved in the agricultural development to provide investment for production, processing, and marketing by creating related industries. This is how Togo envisages its modernised and sustainable, high value agriculture to contribute to economic growth, poverty reduction and living condition improvement in the country.

28.1.2 Issues regarding Agriculture Sector of Togo

The main issue to be improved is unbalanced food crops and underdevelopment of related industry in the country. Deepening the causal interdependence, three major correlation issues are raised as follows.

(1) Underdeveloped /Non-rehabilitated Infrastructures related to Agriculture Production and Trade

This is one of the major problems that impede agricultural development, which limits farming activities, especially in the value addition and marketing of agricultural products. The national road No.1 is developed relatively well crossing the country, however, regional roads and rural tracks which connect to the national roads are not well developed or need to be rehabilitated. For that reason, many rural areas are isolated and it is difficult to get access to agricultural inputs and

materials and technical information for better agricultural practice. The agricultural production is not sufficient to supply rural peoples' food.

On the other hand, some rural areas have an abundance of agricultural production but are isolated, and it is hard for them to access domestic food markets. Additionally, most of them or their cooperatives do not even have a warehouse to stock and condition agricultural products for marketing and shipment adjustment. As a consequence, they tend to sell their products right after harvest at a cheap price to the closest markets even if they are in a neighbouring country. Thus, the agricultural production, even in abundance, does not contribute to food security in the country or the generation of income as much as it could by utilising the market more efficiently.

(2) Limited Farming Activities

Outside of commercial farms, farming activities are limited because of several factors such as lack of inputs and modern technique application, lack of workforce, lack of meccanization and lack of appropriate water management methods and structures, especially irrigation facilities. These issues are described as follows:

- Lack of inputs and modern technique application: Like the neighbouring countries, agricultural inputs are too expensive to use every cropping season due to the transport cost in the less accessible areas. Unlike other countries, large ruminant animals, especially cattle and donkeys are scarce in Togo. Thus, animal manure is barely used as organic fertilizer.
- Lack of workforce and meccanization: Due to the small number of cattle and donkeys owned in Togo, animal powered ploughing is practiced on only 10% of farmlands. Agricultural producers can only cultivate 0.5-1.0 ha, with 0.8ha the average in the country, using hand tools powered by family members. As a consequence, the agricultural productivity is low and one hectare of Togolese farmland generates only 15,000FCFA per annum (equivalent to approximately 24USD).
- Lack of appropriate water management and structures, especially irrigation facilities: In recent years, the agricultural production has become unstable due to climate change, and the producers are not able to practice market-oriented agriculture including planning of production, trading and food processing.
- Regarding the processing, it is noted that value addition activities are restrained by lack of basic infrastructure like water and electric supply, logistic and financial services to start new activities and development of rural entrepreneurship etc.

(3) Information Gap ("Information Symmetry") between Famers and Market Traders

Since rural roads connecting to main roads are underdeveloped or not rehabilitated, the producers in less accessible areas cannot access information regarding market prices that the traders call 'Information Symmetry'. This hinders producers from 'Fair Trade', selling their products at appropriate prices and from recognizing the market demand in terms of quantity and quality.

However, food demand is high at certain times and in some places in and outside the country. For instance, Dapaong and Kara sometimes suffer from food shortage when drought comes. Ghana and Nigeria via Benin always imports a large amount of pulse crops. If the producers have access to such information, they may be able to sell their products at the best time when the demand and price are high, and gain reasonable income.

Also they are not able to produce what the market demands since they do not know what that is. With the lack of rural tracks and telecommunication (ICT) facilities, the agricultural products are sold after several days of transportation and do not meet the market demand. Thus, local products are traded with a reputation of low quality and cheap products, traders do not look for the certain quality of products, so called 'Adverse Selection'. In fact, urban consumers prefer imported products to local ones even when there are no differences in quality.

28.1.3 Objectives for Agriculture Sector of Togo

The overall objective for the agriculture sector is to correct the distribution balance of agricultural products within the country for food security in the first place. And then the agriculture related industry should also be developed for income generation and poverty reduction in rural areas. Under these overall objectives, detailed objectives are defined as follows:

- To enhance agricultural production and productivity of high demanded crops
- To improve/create a favourable environment for agricultural trade and related industry development
- To facilitate good distribution of agricultural products and processed ones which are oriented to domestic and sub-regional markets

These objectives are prepared to seek well-balanced development between inland and coastal areas.

28.1.4 Strategies for Agriculture Sector of Togo

In order to achieve the above mentioned objectives, the strategies and necessary measures by the government which utilise the strengths and opportunities of the agriculture sector of Togo are formulated as follows:

- To increase agricultural production and productivity of highly demanded food crops not only within Togo but also in the sub-region:
  - by improving accessibility to agricultural inputs, materials, and machinery service
  - by rehabilitating and developing irrigation facilities and introducing efficient water use
  - by enhancing public service/training for sustainable and environmentally-friendly production etc.
- To revitalise local agricultural markets which are connected to the sub-regional countries
  - by rehabilitating and developing regional and rural roads to connect with National Road No.1
  - by rehabilitating and developing basic rural infrastructure such as water supply, electric facilities, telecommunications, etc.
  - by rehabilitating and developing market facilities and logistics, etc.
- To attract private investors and to create rural entrepreneurship like ESOP (Enterprise Service and Producers Organization: *Entreprises de Services et Organisations de Producteurs*)
  - by solving land expropriation issues and arranging farmland for newcomers,
  - by establishing and/or arranging a legal system related to investment of the private sector and to create entrepreneurs in rural areas
  - by rehabilitating and developing access roads to the production place and markets etc.

28.1.5 Programmes and Projects for Agriculture Sector of Togo for the Long-Term

In order to achieve the objectives defined for the agriculture sector of Togo, it is desirable to implement projects that realise integrated agricultural development which can improve the fundamental issues based on the strategies.

Table 28.1.1 Integrated Projects for the Long Term in the Agricultural Sector in Togo

Projects	Main Activities	Status
PDRI-MÔ (Rural Development Project in the MÔ plain) :on-going project 2014-2020	Rural development project with multi sectorial activities; organization of village people and cooperatives, construction of class rooms to teach literacy, input and material supply, research on agricultural techniques , construction of warehouses, rural tracks and water supply systems. Irrigation and land development done by the ZAAP.	On going
ZAAP (Planed Agricultural Zones Development): on-going project 2011-	1)Land security (coordination among land owners and farmers), 2)Development of irrigation facilities with management techniques, 3)Establishment of producers' cooperatives, 4)Development of warehouses and drying machinery, 6)Introduction of financial institutions and 7)Protection of the environment	On going
PRODAT(Agropole Development Project in Togo) in Kara	Involving private sectors to establish Sesame value chine; reinforcement of the production through enlargement of production area, construction of processing factory and introduction or processing, and basic infrastructure; electricity, water supply, ITC and rural tracks. PDPR-K can be included in the project.	Planned
PRODAT(Agropole Development Project in Togo) in Oti	Involving private sectors, to develop Rice, production; reinforcement of the production through enlargement of the production area by the ZAAP, and development of electricity and ITC along with livestock and fishery development. PDR-Oti and PATA-Oti can be included in the project.	Planned
PRODAT(Agropole Development Project in Togo) in (Haut) Mono	Extension of good practice in the ESOP and private investors which have already operated in the area, to develop Cashew value chine, production; reinforcement of the production through development of rural tracks, electricity and ITC	Planned
PRODAT (Agropole Development Project in Togo) in Amou, Agou, Yoto, ,Bas-mono, Kovié, Djagblé et Agoméglouzou	The details are to be determined. As all locations are famous for rice and vegetable production, it is expected that the strengthening of a value chain of those crops through the rehabilitation and reconstruction of production base and facilities including logistic infrastructures will be effective	Planned
Market oriented peri-urban agricultural development with private sector	Introducing market oriented products, esp. vegetables and fruits in enclosed areas relatively close to Lomé and Kara through rehabilitation of the watering points and rural tracks. Marketing facilities, information and distribution systems are also introduced.	Proposed by JICA study team based on the strategy of MAEP

Source: MAEH and JICA Study Team

Table 28.1.2 Specific Projects for the Long Term on the Agricultural Sector in Togo

Projects	Contents	Status
Project on professionalization of rural people (PNPER):on-going project 2015-2020)	Training on professionalization for agricultural producers for stable production and development of related industry such as processing. There are 3 components ; Component 1: Facilitating access to non-financial services Component 2: Facilitating access to financial services Component3: Coordination, monitoring and evaluation of the project and knowledge management	On –going
Extension of ESOP organization for value chain development	Development of the food value chain through organization ESOP across the whole country. In addition develop other profitable crops as yam, tomatoes and animal feed to sell in the domestic markets and to export to sub-regional countries.	On going
ProDRA (Programme of Rural Development and Agriculture) : phase-2	Following the experience of the Organization of producers, introduction of materials and providing training on entrepreneurship etc. for Coffee, Cacao, Pineapple and Cashew, to implement the same activities for pulse crops envisaging export to sub-regional countries.	On going
Project on feed production development	For all animals, researching the appropriate feed crop production according to the climactic conditions and animal type in Togo.	Proposed by JICA study team based on the strategy of MAEP
Land use innovation	To utilize unused land properly for agricultural and feed production by introducing new technologies ; stone line, half-moon structure, trench, rotation, intercropping, agroforestry in Centre, Kara and Savannes	Proposed by JICA study team based on the strategy of MAEP
Community development for rural track maintenance	To improve distribution of agricultural material and information, and trading agricultural production over rural tracks by construction of rural tracks as a high priority and Introduction of maintenances schemes for the rural community, etc.	Proposed by JICA study team based on the strategy of MAEP
Niche production for export with PPP	Reinforcement of niche production and standardize and export organic agricultural products by training and supporting of inspectors and producers	Planned

Source: MAEH and JICA Study Team

28.1.6 Profiles of Priority Projects for Agriculture Sector of Togo

The agricultural sector in Togo can contribute to regional integration and corridor development in terms of food production and distribution through the sub-regional countries. In particular, it is important to rehabilitate or construct regional and rural roads in east-west direction to the existing National Road No.1through which most of the agricultural information on production and markets, as well as inputs and materials flow. If farmers can access such information and inputs, agricultural production and productivity would easily be increased because they most of the producers use few inputs at the present.

Roads in north-south direction also facilitate to improve accessibility to sub-regional markets. In fact, there are several markets connecting to the surrounding countries in Togo and many food crops are collected there and distributed from Liberia even to Nigeria. If many farmers can access such markets, they may be able to sell their products and reflect market needs to their production even small portion. In this manner they can generate income from agricultural production and contribute to the food security and economic revitalisation in the sub-regional countries.

Among the programmes and projects listed in 28.1.5, the ones which are prioritised by the MAEH are selected and described in this section.

(1) Project for Reactivation of Planned Agricultural Zone Development (ZAAP)

1) Rationale

Of the 3.4 million hectares of arable land in good condition in Togo, only 45% are cultivated in due to lack of adequate meccanization and water management facilities. As a consequence, the agricultural producers grow crops in a small scale, approximately 0.3-0.6ha within which they work using their own manual labour and traditional agricultural tools.

In the light of the situation, the Togolese government started a project called ZAAP in 2011 to promote small holder producers to access certain areas of land (1ha) and their modern and sustainable land use. The project was planned to develop farmlands of more than 50 ha per canton, which should have totalled about 5,000ha by 2016. However, only 15 cantons have benefited up to now.

2) Objective

In order to develop the agricultural sector by small holder producers in the rural areas, the project aims to raise agricultural production and producers' income through improvement of the production base and management system. In particular, market access should be developed systematically to obtain an appropriate agricultural income. It is desirable to start with sites near National Road No.1, where relatively large markets are available and connections to other countries.

3) Project Description

The project is composed of the following seven activities: i) Securing of Land, ii) Mechanization of Agricultural Practice (machinery introduction), iii) Water Management, iv) Evolution of Cooperatives, v) Development of an Economic Pole, vi) Involvement of Financial Institutions and vii) Protection of the Environment.

All of these activities should be implemented by the Government in the extension phase, but the activities of iv) Evolution of Cooperatives and v) Development of an Economic Pole should be strengthened to improve marketing access by implementing the following activities:

- Construction of rural tracks and warehouses: the location and scale of those infrastructures should be decided after studying the volume of harvests, traffic and market demand around the ZAAP.
- Professionalization of cooperatives: Following the good practice of the ESOP, producers' organizations should be professionalised for having accurate, timely market information and bargaining power. A mobile Market Information System can be a solution.

To set up one ZAAP for one district is a principle of the project, but it is recommendable to revise the criteria of site selection for the purpose of creating synergy with other significant projects, such as PRODAT.

Once one ZAAP is established and well operated, it is possible to attract private investor which may charge of mechanization and financial support to the farmers.

4) **Expected Benefits**

The following impacts and benefits are expected in this project:

- Food security and income generation by expanding farmland for individual producers
- Increasing agricultural production in certain quality and quantity by utilising land and water resources even during climate change
- Attracting private sectors to collect the products or to invest in further activities for value addition
- Growing the rural economy which contributes to the national and sub-regional development by activating distribution of products

5) **Executing Agency and Related Institutions**

Expected executing agencies and related institutions for this project are listed below:

- DAEMA (Direction de l'Aménagement de l'Equipement et de la Mécanisation Agricole), ICAT (Institut de Conseil d'Appui Thechnique) and other directorates in the MAEH
- DRAER (Direction Régionale de l'Agriculture, l'Elevage et l'Hydaulorique) in the target area
- MIT (Ministère de l'Infrastructure et du Transport) for rural tracks
- MPEN (Ministère de la Post et de l'Economie Numérique) for the market information system

6) **Implementation Schedule**

The implementation schedule for this project is shown in the table below:

Table 28.1.3 Implementation Schedule of the Project for Expansion of ZAAP

Item/Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Note
Review of the1st phase						By inter-sectoral committee and former beneficiaries
Modification and identification of modality of the extension phase						By intermenstrual comity
Explanation of formalities in rural areas						By DRAER, ICAT
Support for identification site by community						By DRAER, ICAT
Selection of site to be developed						Done by inter-sectoral committee
Conducting main activities						By DRAER ICAT
Linkage to other projects						By DAEMA, DRAER

Source: Note d'Orientation Stratégique pour la Mise en place et de la Gestion des Zone d'Aménagement Agricole Planifié (ZAAP) au Togo, version Mai 2014, Ministère de l'Equipement Rural

7) **Necessary Actions for Implementation / Critical Factor**

Necessary actions for implementing this priority project are as follows:

- Study on the water resource capacity and establish management measures
- Negotiations with landowners for lending the land to rural producers (beneficiaries)
- Awareness creation for the beneficiaries in terms of water management and payback the land fee
- Environmental and social considerations (see below)

8) **Related Projects**

Related projects are listed as follows:

- PNIASA (Programme National d'Investissement Agricole er de Sécurité Alimentaire)
- PASA (Projet d'Appui Sector Agricole)
- PRODAT including PDPR-K (Projet de développement de la production rizicole dans la Kara), PATA-Oti (Projet d'Aménagement des Terres Agricoles de la Plaine de l'Oti)etc.
- PDRI-Mô(Pprojet de développement rural intégré de la plaine de Mô)
- PARTAM (Projet d'Aménagement des Terres Agricoles de la Zone de Mission-Tové), etc.

9) **Social and Environmental Impacts**

The following social and environmental impacts should be taken into account:

- Impact on wildlife reserves and national parks
- Existence of producers who are not targeted

(2) Project for Rehabilitation of Agricultural Markets Phase 1 (including Kétao and Guérin-Kouka)

1) **Rationale**

Due to the location and form of the country, certain local markets are used not only for local trade but also for sub-regional and international commerce as a 'Market Hub' for transit and re-export to neighbouring countries. In particular, agricultural products are dealt among domestic traders and ones that come from Ghana, Burkina Faso, Benin and even Nigeria. Such markets can be bases of value chin development and economic integration connecting sub-regional countries.

However, most of these markets are still informal suffering from dilapidation and ruined market structures and related infrastructures, thus they are not functioning effectively. Thus the trade is limited and unbalanced at the present, even if the agricultural production has increased in the country.

2) **Objective**

This project aims to boost agricultural trade in Togo with neighbouring countries by rehabilitating and /or developing market facilities and logistic infrastructure of local and sub-regional/international markets. In this manner, it is also expected to contribute to establish food value chains that include sub-regional countries.

3) **Project description**

Target Markets

This project is targeting local markets which are categorized as assembly/wholesale ones mainly for agricultural commodity trade with neighbouring countries such as Ghana, Burkina Faso, Benin and Nigeria. In addition, the local markets which contribute to development inland and near production areas are prioritized. Under these conditions, 6 markers from 4 regions are selected in this project. Moreover it is necessary to develop logistic systems and infrastructures of other markets related to the target ones to collect and distribute products efficiently. The following table describes information of the target markets.

Table 28.1.4 Target Market Information

Region	Target markets	Main commodity	Related markets in Togo	Concerned sub-regional country
Kara	Kétao,	Cereal, Vegetables, Tubers	Kara/Niamtougou	Benin-Nigeria
	Guérin-Kouka	Yam, Maize, Cotton, Sesame	Bassar,Kabou	Ghana
Savenes	Cincassé	Cereal, Vegetables, Cattel	Dapaong	Burkina Faso, Ghana
	Gando-Namoni	Guinea fowl, Cattle, Cereal, Rice	Sansané-Mango	Benin- Nigeria
Central	Tchamba	Pulse crops, Cassava, Cashew nuts,	Sokodé, Morétan,Kamboé	Benin
Plateau	Anié	Maize, Cotton, Fruits, Catfish	Aktapame	Ghana, Benin, Nigeria

Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and surveying the regional directorates of MAEH in Savane and Kara and the MAEH

Feasibility Study

Although target markets can be identified by the location and current situation of trade and production, a feasibility study should be done thoroughly to identify the range of the rehabilitation and development for each target market. The government has been implementing many programs/projects and aims to raise agricultural production and trade by leading the private sector such as investors or professional farmers groups such as ESOP at the present. Therefore the development plan for each market should be well exanimated and designed according to the actions of the private sector and the government to create a synergy effect. In particular, it is necessary to arrange and segment the activities of the PRODAT, which has several development activities including basic infrastructures such as electricity, ICT, water supply and road rehabilitation and construction in order not to overlap.

Necessary Rehabilitation and Development (tentative)

As above-mentioned, all details are to be determined after a feasibility study. But the following table describes market facilities and logistic infrastructures to be rehabilitated based on the current information obtained from the MAEH and a diagnostic report for national trade strategy in Togo issued by the MCIPST in 2012. According to the new governmental policy, the government should be a responsible party for public infrastructure development such as market and road implementation and the private sector may take charge of the ones related to business such as warehouses or logistic stations.

Table 28.1.5 Market Infrastructures to be Rehabilitated or Developed

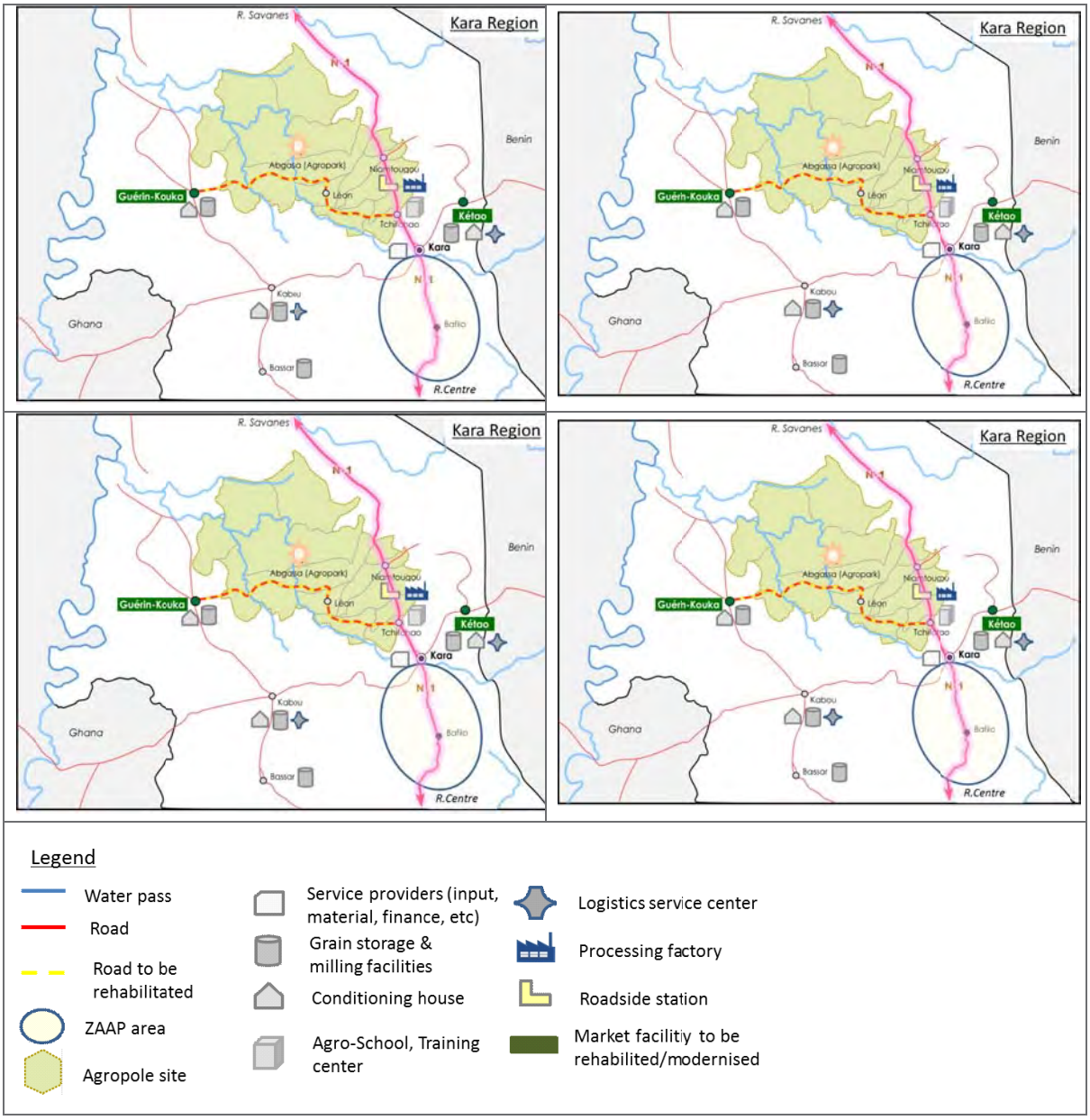
Region	Markets		Public infrastructures to be rehabilitated (Responsibility of Government)	Logistic infrastructures to be developed (Responsibility of Private Sector)
	Target	related		
SAVANES	Cincassé		- Market: Rehabilitation	- Grain/Tuber storage and milling facility
		Dapaong	- Market: Rehabilitation(Modernisation) - Road: Madouri~Dapaong	- Grain/Tuber storage and milling facility - Conditioning house (for vegetables) - Service provider (input, material finance)
	Gando-Namoni		- Market; Modernisation - Raod:Bauré~Mogou~Gand o- Namoni	- Grain/Tuber storage and milling facility
		Sansané-Mango	- Market:Complex Roadside Station - Road: Borgou~ Sansané-Mango	- Conditioning house (for vegetables)
KARA	Kétao,		- Market:Rehabilitation	- Grain/Tuber storage and milling facility - Conditioning house - Logistic station
		Kara	- PARMCO*	Service provider (input, material finance)
		Niamtougou	- Market:Complex Roadside Station**	- Processing Factory
	Guérin-Kouka		- Market: Modernisation	- Grain/Tuber storage and milling facility - Conditioning house
		Kabou	- Raod:Agbassa~Guérin-Kouka	- Grain/Tuber storage and milling facility - Conditioning house - Logistic station
		Bassar		- Grain/Tuber storage and milling facility
CENTRAL	Tchamba		- Market :Rehabilitation	- Grain/Tuber storage and milling facility - Processing factory
		Sokodé	- Market:Complex Roadside Station	- Grain/Tuber storage and milling facility - Conditioning house
		Morétan, Kambolé	Road :Morétan~ Issati~Kambolé	- Grain/Tuber storage and milling facility
PLATEAUX	Anié		-Market: Rehabilitation& Formalization -Road: to be determined	- Grain/Tuber storage and milling facility - Conditioning house
		Aktapame	-Market: Modernisation -Road: to be determined	- Conditioning house

*With the Grand Market of Lomé, the Central Market of Kara is reconstructed by an on-going project called PARMCO (*Projet d'Appui à la Reconstruction des Marchés et aux Commerçants*)

** Complex Roadside Station: complex facilities including all logistic infrastructures such as grain storage, conditioning warehouse, processing house, logistic station and tourist attractions (restaurant and parking lot and others)

Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO,détaillé toutes zones and reports from the MAEH

The following figures show examples of the infrastructures development.



Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, and reports from the MAEH

Figure 28.1.1 Example of Logistic Infrastructure Development for Togo

4) Expected Benefits

The following impacts and benefits are expected in this project:

- Optimization of agricultural product flow and trading flexibility both for producers and buyers involving neighbouring countries
- Reduction of waste and lack of agricultural products in certain areas because of the optimization with neighbouring countries
- Reduction of the import goods because of the optimization among the neighbouring countries
- Generation of income by transit and re-export goods through other countries
- Generation of rural employment due to food value chain development
- Reduction of poverty in individual producers' households and in rural areas

5) **Executing Agency and Related Institutions**

- Concerned Directorates in the MAEH, especially regional directorates
- Ministries involved such as Commerce, Industry and Tourism, Energy, Telecommunication and Digital Economy, and Infrastructure and Transport etc.
- Organizations of the private sector such as, Chamber of commerce, Exporters unions etc.
- Agribusiness private/ semi-private companies
- ESOP
- Other donors; World bank, IFAD, BOAD, BIDC etc.

6) **Implementations Schedule**

The implementation is divided into 3 phrases until 2040.

- 1st phrase (2017-2025): Market in region of Kara (with an expectation to create immediate synergy with the construction of national road No.7 to be done by the Japanese government and the PRODAT which will start by Kara)
- 2nd phrase(2025-2033): Market in region of Savanes and Pleateax
- 3rd phrase(2033-2040): Market in region of Centre

The implementation schedule by phrase for this project is shown in the table below.

Table 28.1.6 Implementation Schedule of the Project

Item/Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year7	Year8	Note
Feasibility study and formulation of the project									
Rehabilitation & Modernization of Market facilities									
Rehabilitation of access roads to markets									
Development of storage, conditioning warehouse and logistic station									
Formalization of market: Market system improvement (regulation, management, etc.)									
Development and function of processing factory									
Development and function of Roadside station									

Source: JICA Study Team

7) **Necessary Action for Implementation/ Critical Factor**

- Necessary actions for implementing this priority project are as follows:
- Actualization of regulations on land ownership and registration
- Reform of the agricultural orientation law
- Promotion for the private sector to invest in a part of the projects
- Improvement of the access to financial institutions and other private sector entities for rural producers

8) **Related Project**

- ZAAP
- PRODAT

- PNPER
- ESOP
- Pro-DRA
- PARMCO : Project on Reconstruction of Markets and Traders Support: Projet d'Appui à la Reconstruction des Marchés et aux Commerçants

9) **Social and Environmental Impacts**

The following social and environmental impacts should be taken into account:

- Consideration of gender and more vulnerable people
- Environmental and social strategies evaluation in accordance with the Togolese regulations and the procedures of the African Development Bank especially for road rehabilitation and logistic infrastructure development.

(3) Agropole Development Project in Togo (PRODAT : Projet de Développement des Agropôles au Togo)

1) **Rationale**

Although the national economy has grown firmly as targeted in the SCAPE, it has not grown enough to reduce the poverty in the country, especially in the rural areas. Since the agriculture, including livestock husbandry and fishery, is the main livelihood there, it is desirable to develop value addition activities like food processing and planned shipment, which can be a good solution to generate income and employment in rural areas.

In the light of the situation, the MAEH has worked out an integrated regional economic development project with a focus on agriculture and infrastructure development for growth poles called 'Agropole'. The concept is proposed for realization of the overall objective in the new Agricultural Policy 2016-2030; to contribute to acceleration of economic growth, poverty reduction and improving living conditions, while ensuring social inclusion and respect for the environment.

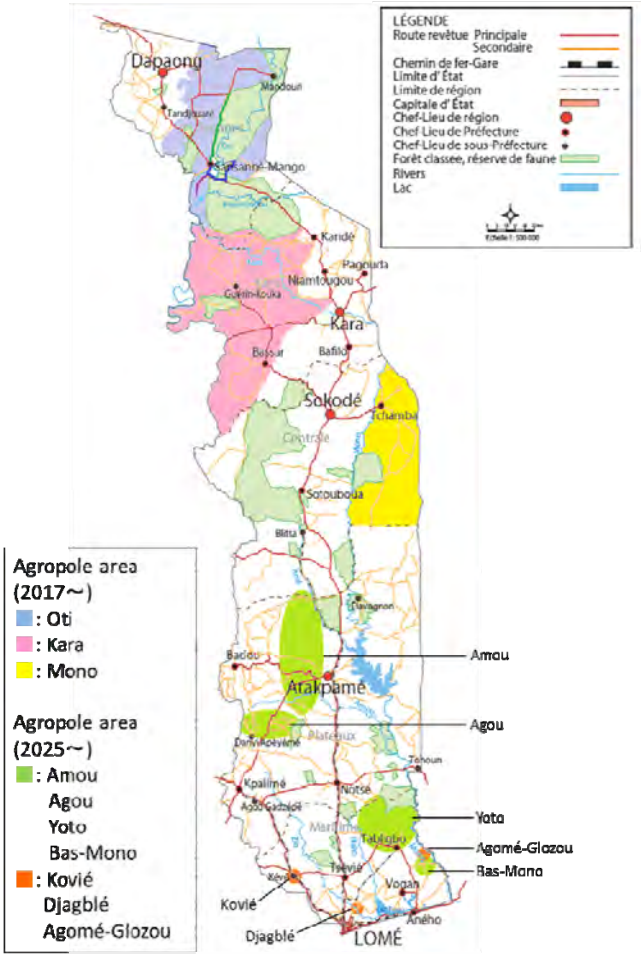
2) **Objective**

Aiming at the above mentioned objective of the new Agricultural Policy 2016-2030, the project of Agropole development (PRODAT) is to promote sustainable and harmonised rural development by taking advantage of the country's strengths, such as the human, natural, geographical, and socio-cultural resources. In particular, it should be implemented through coherent and complementary interventions both private and public to effectively address the need for development of targeted areas and the concerns of producers and other players in the agricultural sector.

3) **Project Description**

The project will be implemented initially in three target sites as a pilot in the following order:

- Kara basin in Kara Region;
- Oti basin in the Savannah Region; and
- Headwaters of the Mono basin, located in the Central and Plateaux Regions.



Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and reports from the regional directorates of Savanne and Kara

Figure 28.1.2 Project Location for PRODAT

The projects consist of four components: i) Infrastructure Development, ii) Support for Private Initiative Development, iii) Reinforcement of Capacities and iv) Project Management.

Detailed activities by target site will be identified based on the results of technical studies, three Agropole which are to start at the first step are planned tentatively as shown below.

Table 28.1.7 Tentative Targets and Activities in Agriculture Sector by Site for PRODAT

	Kara	Oti	Mono
Targeted Crops	Sesame, Ground nuts (for export), Rice (for domestic supply)	Rice, Sugar cane, (mostly for domestic supply)	Soy bean, Cashew nuts, Sesame (for export)
Target Livestock	Poultry (for domestic supply), Guinea fowl, Pigs	Guinea foul (pintade), Cattle (for domestic supply)	To be identified
Target fish	Catfish (for export)	To be identified	To be identified
Tentative planned activities	- Traffic network (rural tracks) of isolated areas - Electrification - Establishment of Information Communication Technology (ICT) - Rehabilitation/development of the Agbassa and Pagouda dams - Rehabilitation of the market Natitikpi (Kara) - Rehabilitation of the school complex Tchicthao - Extension of PDPR Kara - Value addition of the rice mill in Kara - Construction of infrastructure for abandoned crops - 3 ESOP and ZAAP	- Traffic network (rural tracks) in isolated areas - Electrification - Establishment of Information Communication Technology (ICT) - Rehabilitation of key hydraulic structures - Financing for micro power plants - Revitalization of the Namiélé ranch - Creation of Basic quality standards and food safety - Rehabilitation of hydraulic structures (dams) - ZAAP	- Traffic network (rural tracks) in isolated areas - Rehabilitation and construction of water reservoirs - Development of lowlands, central mini construction - Electrification - Establishment of Information Communication Technology (ICT) -ZAAP

Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and reports from the regional directorates of Savanne and Kara

From among them, the rehabilitation or development of regional and rural roads, ICT and structures for water supply are indispensable for the PRODAT. In particular, as for the regional and rural roads, the following table shows roads to be rehabilitated to produce a great impact, which have been prioritised in several documents and concerned regional directorate offices in the case of Kara and Oti. Out of basic infrastructure development and improvement of extension service, post-harvest, processing and trading till exporting are expected to be implemented by private sector.

Table 28.1.8 Roads to be Rehabilitated for Agriculture Sector by Site for PRODAT

	Kara	Oti	Mono
Road to be rehabilitated	- Léon-kouka - Agbassa-Dankpen - Guérin Kouka- Brouka	- Bangou-Sansanne Mango - Sadari-Faré - Sansanné Mango-Sadori-Bauré-Mogou	- Kambolé-Morétan

Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and reports from the regional directorates of Savanne and Kara

Other transversal activities such as training and research, mobilization and awareness making of producers and establishment of service centres are also planned.

4) **Expected Benefits**

The following impacts and benefits are expected in this project:

- Achievement of food security by increase of agricultural production and distribution
- Poverty reduction by generating income from agro-industrial development and creation of employment
- Creation and development of agro-industries in rural areas
- Economic growth in the rural areas and across the country by increasing national production, consumption and investment

5) **Executing Agency and Related Institutions**

Expected executing agencies and related institutions for this project are listed below.

- Concerning Directorates in the MAEH, especially regional directorates
- Ministries involved such as Commerce, Industry and Tourism, Energy, Telecommunication and Digital Economy, and Infrastructure and Transport etc.
- Organizations of private sectors such as, Chamber of commerce, Exporters unions etc.
- Union and federation of producers organizations
- Other donors; World bank, IFAD, BOAD, BIDC etc.

6) **Estimated Project Cost**

The estimated cost for Agropole in Kara is 31.095 billion FCFA among which 3 billion FCFA was earmarked for implementation of PDRP-K to be integrated with the Agropole –Kara.

7) **Implementation Schedule**

Including a technical study and formulation project conducted in 2016, the implementation schedule for this project is shown in the table below.

Table 28.1.9 Implementation Schedule of PRODAT for Agriculture Sector

Item/Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Note
Technical study and formulation project							
Implementation of existing projects (PATA-Oti, PDRP-K,ZAAP etc)							Financed by OFID,IDB, BADEA
Agropole-Kara							Depends on the financial sources
Agropole-Oti							Depends on the financial sources
Agropole-Mono							Depends on the financial sources
Study for Agropole in other sites							

Source: JICA Study Team based on reports from the DRAEH and DPPSE/MAEH

8) **Necessary Actions for Implementation / Critical Factor**

- Necessary actions for implementing this priority project are as follows:
- Actualization of regulations on land owner ship and registration
- Reform of the agricultural orientation law
- Improvement of the access to financial institutions and other private sector entities for rural producers
- Promotion to attract private sectors into the sites
- Promotion for the private sector to invest in a part of the projects; post-harvest, processing and trading (export)

9) **Related Projects**

Related projects are listed as follows:

- PNIASA
- PASA
- PPAAO (Programme de Productivité Agricole en Afrique de l'Ouest)
- PDRI-Mô
- PNPER (Projet National de Promotion de l'Entreprenariat Rural)
- Project ESOP (Entreprises de Services et Organisations de Producteurs), etc.

10) **Social and Environmental Impacts**

The following social and environmental impacts should be taken into account:

- Consideration of gender and more vulnerable people
- Environmental and social strategies evaluation in accordance with the regulation Togolese and procedures of the African Development Bank.

28.2 Livestock Sector of Togo

28.2.1 Present Situation and Future Prospects of Livestock Sector of Togo

The livestock sector in Togo is characterized as a secondary activity behind agriculture in which 70% of the people are engaged. However, the livestock sector has only contributed 5-8% of the national GDP in recent years and covers only two thirds of national needs for animal production. This underdeveloped livestock sector is a consequence of the traditional habit where most of rural

people make a living with crop production together with traditional raising of 1-2 head of small ruminants and a few hens per household.

However, demand for animal products has been increasing gradually in recent years due to the economic development of the country. Domestic livestock husbandry is becoming more important in the urban areas. In terms of rural development, this sector should be improved in order to generate extra income. For that reason, poultry, pig and small ruminants, which quickly reach breeding age, have increased in productivity, largely through extension of semi-intensive methods and the professionalization of producers organizations' with help from the private sectors as part of the National Programme for Agricultural Investment and Food Security (PNIASA: *Programme National d'Investissement Agricole et de Sécurité Alimentaire*).

Based on such experience, a new agricultural policy for the period 2016-2030 (PA-PSTAT2030) also supports a development project, Agropole Development Project in Togo (PRODAT: *Projet de développement des Agropôles au Togo*) in which the livestock sector should be one component to increase the animal productivity in the country and contribute to rural development. Value chain development for poultry and cattle is programmed to contribute to poverty reduction in the first five-years (2016-2020).

28.2.2 Issues regarding the Livestock Sector of Togo

Shortage of animal production is the main problem to be tackled in the livestock sector of Togo. Thus, the sector does not contribute to generate income for rural producers as much as it could. The main causes of the problem are the four issues as follows.

(1) Inaccessibility to Reasonable Feed and Veterinary Service

Although a lot of crop residues and unused water resources exist, lack of feed and pastureland restrains livestock husbandry development in Togo. As for poultry, the necessary feed needed to support semi-intensive livestock raising is imported from Ghana and even American countries at high prices, which limits the poultry industry development.

The veterinary service, technical advice and necessary inputs also are hard to access for the producers in the rural areas. In consequence, the producer cannot raise their productivity and they lose their animals through some diseases which can be prevented easily by a vaccine or raising method; e.g. a chicken disease called 'new castle' or pork cholera etc.

(2) Extensive Familial Livestock Raising

As above-mentioned, the livestock sector in Togo is not well developed as an economic sector and falls behind crop production. In general, cattle husbandry is mostly practiced in a traditional transhumance way to look for animal feed. This way cannot only limit the productivity and production but also causes a conflict with crop producers when the cattle raisers go south with their troupes to look for grassland and watering points. As for the small ruminants, most of them are kept in a back yard garden and fed house scraps or weeds from natural grassland.

(3) Lack of Competitive Production Methods for Imports

Lack of competitiveness with imported livestock products reduces Togolese producers' incentives to expand livestock raising. Since the animal production requires intensive care and a great deal of feed which is expensive, the livestock production using feed is very costly in the country. Additionally, meat consumers who are mostly living in urban areas tend to buy imported products even if they are more expensive than the domestic ones because of their suspicion regarding quality and sanitation. Thus the livestock cannot generate income as the producers spend time and money, which discourages livestock producers from producing more.

(4) Conflict with Transhumance

Animals raised through transhumance from Niger, Burkina Faso and Mali are important supplies of animal products in Togo, however the opportunity is not well utilised. One of the main reasons is the conflict between the transhumant pastoralists and indigenous crop producers. The animals conducted by the pastoralists sometimes happen onto an entire cropping field and destroy the crops. The crop producers, which are most of the rural people, do not welcome them to come into their area to trade animal products, even certain markets that are located suitably for domestic and sub-regional consumers . Thus, the animal trading markets generally are located in marginalised areas.

28.2.3 Objectives for Livestock Sector of Togo

Since there is a lack of experience in livestock husbandry and the demand for animal products is increasing in the domestic markets, the overall objective of the sector is simply to increase animal production and to become competitive to be a supplemental economic activity. The detailed objectives of the sector are set as follows:

- To realise stable and competitive animal production by improvement of the access to reasonable domestic feeds and veterinary service
- To increase productivity and production by changing livestock raising style but not to disturb the tradition
- To boost local animal trade by utilising the maximum opportunity of transhumance and the advantage of market location.

28.2.4 Strategies for Livestock Sector of Togo

The basic strategy for the livestock sector in Togo is to efficiently utilise existing animal resources and avoid concurrence with neighbouring countries.

In the light of the above, the strategies and measures are set as follows:

- To continue to allow transhumant animals to be brought into Togo from northern countries
  - by designating movement routes and developing watering points and pasture lands for transhumant cattle in accordance with the existing Management Plan of Transhumance
  - by buying cattle from pastoralists, and raising them to increase the number of head in Togo
  - by organizing livestock producers to exchange information and techniques

To utilise existing animal products (guinea fouls, pigs, sheep and goats) which quickly reach maturity and Togo has advantages over other countries

- by introducing in house- feed making by using residues of crops
- by improving animal varieties
- by expanding the extension service and inputs by increasing the workforce and extension centres

28.2.5 Programmes and Projects for Livestock Sector of Togo for the Long-Term

In order to achieve the objectives, it is desirable to implement projects which contain several possible measures based on the strategies. Regarding the integrated projects, contents related to the livestock are selected as shown in the following tables.

Table 28.2.1 Integrated Projects for the Long Term in the Livestock Sector

Projects	Main activities	Status
PDRI-MÔ (Rural Deve. Project in the MÔ plain) :on-going project 2014-2020	Poultry, small ruminants and pork production through extension of improved henhouses, technical training regarding improved raising systems. Rural track rehabilitation and producers organization activities are included.	On going
PRODAT(Agropole Development Project in Togo) in Kara	Poultry farming development with construction/rehabilitation of rural tracks, energy and ITC and Training centre for producers (for production and processing)	Planned
PRODAT(Agropole Development Project in Togo) in Oti	-Poultry farming development with construction/rehabilitation of rural tracks, energy and ITC and Training centre for producers (for production and processing) -Cattle raising development by utilising ranch Namiéré in Mango prefecture	Planned
PRODAT(Agropole Development Project in Togo) in Amou, Agou, Yoto, ,Bas-mono, Kovié, Djagblé et Agoméglouzou	The details are to be determined later. As all locations are famous for rice and vegetable production, it is expected that the strengthening of the value chains of those crops through the rehabilitation and reconstruction of their production bases and facilities, including logistic infrastructures	Planned
PASA (Agriculture Sector Support Project) :phase-2	As the next phase of implementation 2011-2016, for stable production of small ruminants and chickens through introducing feed production and semi-intensive raising and intensive hog raising in the next phase.	On going
Project on extension system development (as extension project of PPAAO)	Based on the experience and knowledge of PPAAO, introduce the new improved breed and raising techniques for chickens and small ruminants. Pork raising and feed production also should be included for the extension phase.	Proposed by JICA study team based on the policy of MAEP
Project on 1000ha Development for Agro-sylvo-pastoral and Fishery	Livestock development through construction of watering points and management systems. The pasture land establishment can be included in accordance with the transhumance management plan.	Planned
Market oriented peri-urban agricultural development with the private sector	Introducing profitable animal raising (such as chickens, pigs) in enclosed areas relatively close to Lomé and Kara through rehabilitation of the points and rural tracks together with horticultural production. Marketing information and distribution systems are also introduced.	Proposed by JICA study team based on the policy of MAEP

Source: JICA Study Team based on information from MAEH

Table 28.2.2 Specific Projects in the Long Term for the Livestock Sector in Togo

Projects	Contents	Status
Project on professionalization of rural people (PNPER):on-going project 201-2020	Training on professionalization for animal producers for stable production and development of related industries such as processing.	On going
Extension of ESOP organization for value chain development	Development of the meat value chain for small ruminants through organization ESOP in Kara and Savanne. Slaughterhouse construction and equipment is included for their products and transhumant animals.	On going
Project for feed production development	For all animals, researching the appropriate feed crop production according to the climate condition and animal type in Togo.	Proposed by JICA study team based on the policy of MAEP
Project for Coexistence of Transhumant and Pastoralists	To utilise transhumant animals as a product, establishing pasture land and watering points according to the transhumance path plan drafted in 2014.	Planned
Animal Processing Development in Rural Areas	Traditional cheese processing development through organization and capacity building of women's groups and construction of a processing factory and equipment.	Proposed by JICA study team based on the policy of MAEP
Development of Intensive Beef Meat Production with PPP	Beef meat production development through introduction of varieties that are productive and resistant to the environment and Production of feed crops and silage	Proposed by JICA study team based on the policy of MAEP

Source: JICA Study Team based on the information from MAEH

28.2.6 Profiles of Priority Projects for Livestock Sector of Togo

The livestock sector in Togo, even the small scale producers, contributes to the sub-regional economic integration corridor development, especially for balancing supply and demand of meat in West Africa. The meat demand has surged in recent years and there are plenty of crop residues in Togo. Moreover, there are local markets related to the sub-regional counties, even to Nigeria, the biggest consumer country in West Africa. Therefore, Togo can consume or distribute the animals that come from Burkina Faso and Niger every dry season. As for the short cycle animals which the Togolese farmers are used to raising, they are highly demanded within and outside of the country; for instance, Guinea fowl and Goats for Ghana, Pigs for Benin, Sheep for Nigeria, etc.

In that manner, if the livestock sector is developed and recognized as an income generation activity in the county, it is conceivable that related industries such as input trading or processing of animal products can emerge or be developed. This can push the urban rural economic growth along the main corridor and feeder roads in the future.

(1) Cross-border Transhumance Management for Togo

1) **Rationale**

The same as the other coastal countries in West Africa, Togo has been receiving a large number of cross bordered transhumance from northern Sahelian counties as a source of animal products. However, at the same time, it causes a conflict between the nomadic herders (transhumant pastoralists) and other natural resources users, indigenous farmers in particular, because the frequency and duration of the pasturage have become longer due to frequent occurrence of drought.

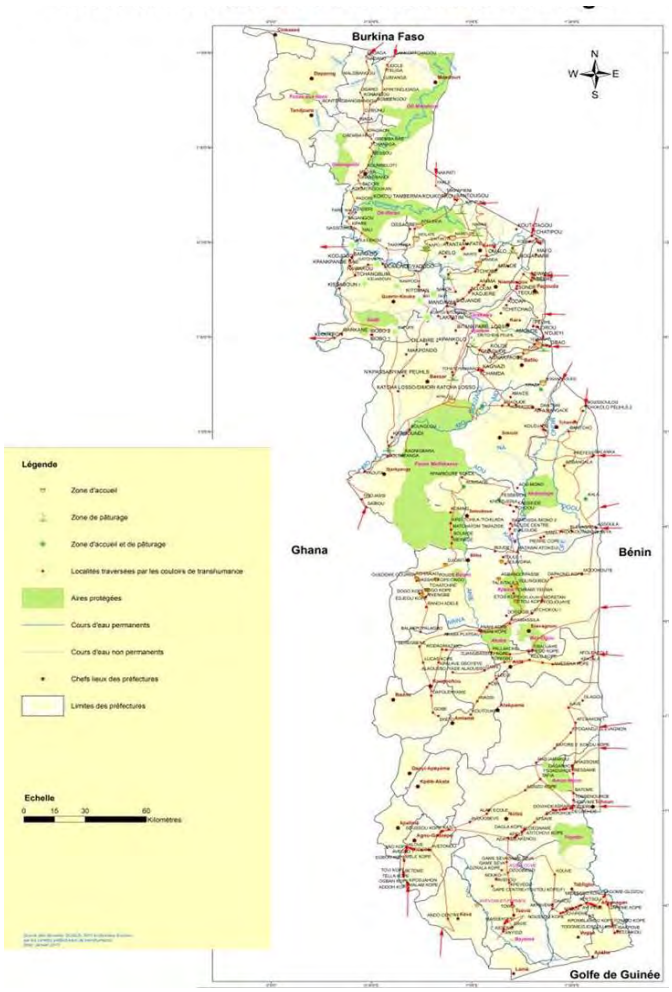
In order to cope with the influx of a large number of livestock, the Government set up a National Committee of transhumance (CNT) for each prefecture and canton. After a series of reflections in the CNT, the Togolese government established a national plan on Cross-border Transhumance Management. The overall objective is to ensure that the transhumance that is secure and has a positive economic impact and that animal sanitation is monitored in an environment of peaceful social cohesion. The strategy consists of 9 principals and was set up for 7 years 2014-2020 and several urgent activities have partially started.

2) **Objective**

In order to efficiently use cross-bordered transhumance, and to solve its problems as an urgent transnational issue, it is worth the implementing actions and activities mentioned in the plan as a project or programme. At the present, there are seven expected outputs, 40 actions and 60 activities that are raised in the plan, some of which have already started implementation.

3) **Project Description**

The project covers all regions because the transhumant arrives in the Maritime Region through all those regions. However, the areas where the traffic of transhumant animals is most frequent should be focused on, such as the borders of Burkina Faso (2 points), Benin (14 points) and Ghana (3 points).



Source: Direction de l'Elevage of MAEH, September 2014, National Plan on Cross-border Transhumance Management

Figure 28.2.1 Transhumance Map of Togo

Under the two following specific objectives; i) Significant reduction of conflicts caused by transhumance and ii) Better integration of the transhumance into the national economy, there are seven expected outputs and 40 actions as shown in the following table.

Table 28.2.3 Actions in the Transhumance Management Plan

Expected Output	Main Actions
Transhumance is better managed	- Distribution of the transhumance support and communication through ITC - Awareness improvement of all actors on the regulation and text concerning transhumance - Identification of parties for collaboration, etc.
Sociocultural relations between farmers and transhumants are improved significantly	- Identification of focal points in different communities - Organization of regular consultation meetings between the various stakeholders
People and property are secured	- Increase of control for entry and actions within the territory - Establishment of security mechanism for nomadic herds etc
Disturbance risk of animals and negative impacts on human health are reduced	- Checking transhumant animals at entry points - Treatment of sick animals - Identification of sedentary cattle, etc.
Natural resources management is improved	- Development of animal receiving zone and pasturage - Determination of place for charge and pasturage , etc.
The transhumance contributes to national economic growth	- Installation of infrastructures and measures for the transhumant animal management - Production of fodder crops (green feed, silage, hay etc.), etc.
Communication(among actors is activated)	- Organization and holding training workshops - Installation of announcement spot of the transhumant period, etc.

Source: Direction de l'Elevage of MAEH, September 2014, National Plan on Cross-border Transhumance Management

4) **Expected Benefits**

The following impacts and benefits are expected in this project:

- Reduction of conflicts caused by cross border transhumance
- Contribution of animal production in the country by increasing secure and appropriate transhumance
- Contribution to the national economic growth by increasing the animal products and related economic activities

5) **Executing Agency and Related Institutions**

Expected executing agency and related institutions for this project are listed below.

- MAEH, especially the Directorate of Livestock and regional directorates
- Ministries in charge of transhumance such as Ministries of Territory Administration, Forest resources, Economy and Finance, Territory Development etc. and those regional directorates
- FENAPFIBVITO (Union Fédération Nationale des Professionnels de la Filière Bétail Viande du Togo ; national federation of meat supply chain professionals in Togo)
- Other NGOs and donors concerning the transhumant issues

6) **Estimated Project Cost**

The estimated total cost is counted 6,867,912,000FCFA (approx. 10,470, 064euro) for 7 years from 2014 to 2020.

7) **Implementation Schedule**

Activities are roughly classified into five categories and the implementation schedule can be assumed by cost allocation for seven years. The estimated schedule is shown below.

Table 28.2.4 Implementation Schedule by Output for Cross-Border Transhumance Management

Output	Year 1 2014	Year 2 2015	Year 3 2016	Year 4 2017	Year 5 2018	Year 6 2019	Year 7 2020	Note
Definition of the actors, Commencement of comity and								
Purchase of necessary materials and installation								
Construction of urgent infrastructures (main animal park, veterinary station etc.)								
Construction of necessary infrastructures (animal park, pastureland, etc.)								
Awareness raising, Training, Workshops Meeting								Anytime necessary

Source: JICA Study Team based on reports from the Direction de l'Elevage at MAEH and Direction de l'Elevage at MAEH, September 2014, National Plan on Cross-border Transhumance Management

8) **Necessary Actions for Implementation / Critical Factor**

(a) Crosscutting Actions for the Corridor Development

- Development of water resource
- Improvement of telecommunication
- Improvement of the access to financial institutions and other private sector entities for rural producers
- Development/ rehabilitation rural tracks

(b) Actions for the Priority Project

- Actualization or reform of regulations regarding land ownership and transhumance
- Preparation for mitigation of risks of natural disasters (drought), outbreaks of infectious diseases in animal and humans like Ebola, haemorrhagic fever, etc.

9) **Related Projects**

Related projects are listed as follows:

- PNIASA (Programme National d'Investissement Agricole er de Sécurité Alimentaire)
- PASA
- PPAAO (Programme de Productivité Agricole en Afrique de l'Ouest)

10) **Social and Environmental Impacts**

The following social and environmental impacts should be taken into account:

- Consideration of transnational transhumant and indigenous residents
- Environmental and social strategies evaluation in accordance with the Togolese regulations and procedures of the African Development Bank.

(2) Agropole Development Project in Togo (PRODAT :Projet de Développement des Agropôles au Togo)

1) **Rationale**

The livestock husbandry is the second most common livelihood but it is not very prosperous in Togo, but the demand for animal products such as meat, eggs and dairy products have surged in the country. In fact more than 50% of the meat is imported, and enhancement of animal production is an urgent issue at the present.

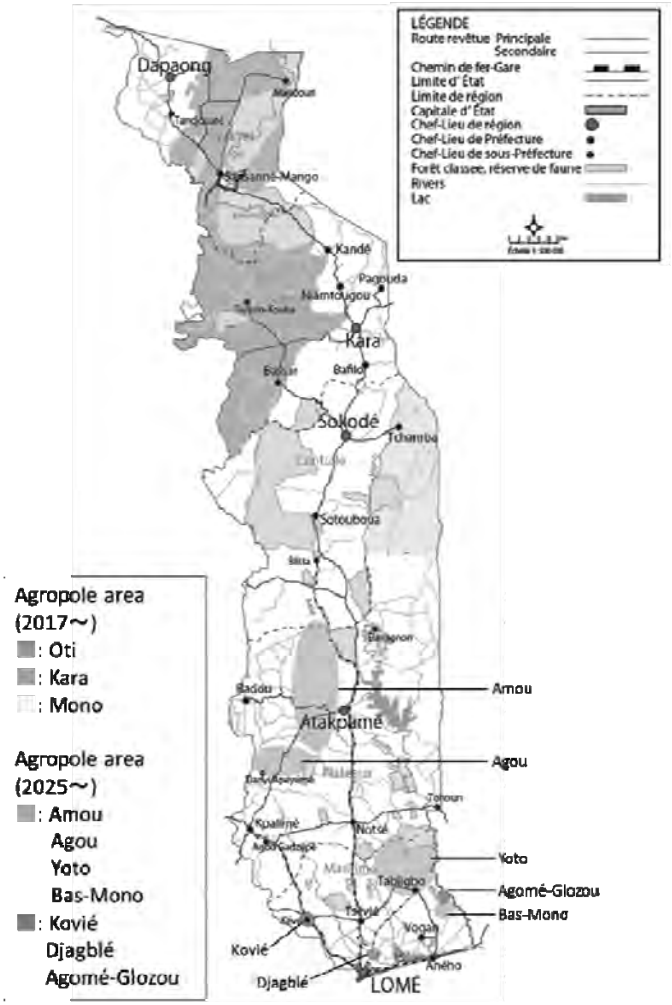
In accordance with the new Agricultural Policy 2016-2030, the MAEH has worked out an integrated regional economic development project with a focus on agriculture including livestock husbandry and fishery and infrastructure development as a growth pole called 'Agropole'. The livestock sector is considered as an important economic activity next to agriculture in the project, PRODAT

2) **Objective**

In order to contribute to increase domestic animal production and decrease imports, the project is to promote animal production by reviving existing projects and by introducing new animal raising systems.

3) **Project Description**

The project, the PRODAT will be implemented initially in three target sites, the basins of Kara and Oti and headwater of Haut Mono as a pilot as mentioned in 28.1.6 (2). Activities of the livestock sector were planned in the Kara and Oti heretofore. Those of Mono will be decided after a preparative study.



Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and reports from the regional directorates of Savanne and Kara

Figure 28.2.2 Project Location for PRODAT

The same as mentioned in 28.1.6 (2), the project consists of four components; i) Infrastructure Development, ii) Support for Private Initiative Development, iii)Reinforcement of Capacities and iv) Project Management.

Detailed activities by target site will be identified based on the results after technical studies. Those of the livestock sector are planned tentatively as below.

Table 28.2.5 Tentative Activities in Livestock Sector by Site for PRODAT

	Kara	Oti
Target	Poultry (for domestic supply) Guinea fowl, Pig	Guinea foul (pintade), Cattle(for domestic supply)
Existing projects	Semi-intensive raising of poultry by PASA	Revitalization of the ranch Namiélé*
Tentative activities related to the sector	- Traffic network (rural tracks) of isolated areas - Improvement of telecommunication system - Rehabilitation/development of the dam Agbassa and Pagouda - Rehabilitation of the market Natitikpi	- Traffic network (rural tracks) of isolated areas Financing for micro power plants - Improvement of telecommunication system - Creation of basic quality standards and food safety regulations - Rehabilitation of hydraulic structures (dams)

Note*: Ranch de Namiélé: 1300 head of cattle were raised in some 7,000ha established by a Suisse company, UNEFICO (Universal Engineering and Finance Corporation) in a project for 'Modernising agro-pastoral techniques in the Namiélé' 1978-83. The Togolese government took over the operation in 1999, but the ranch has been managed with only 60 cattle on a shoestring due to lack of budget.

Source: JICA Study Team based on PROJET DE DEVELOPPEMENT DES AGROPOLES AU TOGO, ETAT DES LIEUX DES ZONES POTENTIELLES, and reports from the regional directorates of Savanne and Kara

Regarding rural tracks, there are no rural tracks specified only for the sector, however they can be important to trade animal products expected in the future, for example between Namiélé and Sansane-Mango. Improvement of telecommunication also is indispensable for distribution of market information.

4) **Expected Benefits**

The following impacts and benefits are expected in this project:

- Increase the market share of the domestic animal products
- Poverty reduction by generating income from livestock husbandry
- Economic growth in the rural areas and across the country by increasing national production, consumption and investment

5) **Executing Agency and Related Institutions**

Expected executing agencies and related institutions for this project are listed below.

- Concerned Directorates in the MAEH, especially regional directorates
- Ministries involved such as Commerce, Industry and Tourism, Energy, Telecommunication and Digital Economy, Infrastructure and Transport etc.
- Union and federation of producers organizations
- Other donors; World bank, IFAD, BOAD, BIDC etc.

6) **Estimated Project Cost**

The estimated cost for Agropole in Kara is 31.095 billion FCFA among which 3 billion FCFA was earmarked for implementation of PDRP-K to be integrated with the Agropole –Kara.

7) **Implementation Schedule**

Including a technical study and formulation project conducted in 2016, the implementation schedule for this project is shown in the table below.

Table 28.2.6 Implementation Schedule of PRODAT for Livestock Sector

Item/Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Note
Technical study and formulation project							
Implementation of existing projects (PASA, PPAAO etc.)							Financed by OFID,IDB, BADEA
Agropole-Kara							Depends on the financial sources
Agropole-Oti							Depends on the financial sources
Study for other site for Agropole							

Source: JICA Study Team based on reports from the DRAEH and DPPSE/MAEH

8) **Necessary Actions for Implementation / Critical Factor**

Necessary actions for implementing this priority project are as follows:

(a) Crosscutting Action for the Corridor Development

- Development of water resource
- Improvement of telecommunication
- Improvement of the access to financial institutions and other private sector entities for rural producers
- Development/ rehabilitation rural tracks

(b) Actions for the project

- Promotion for the private sector to invest in a part of the projects
- Actualization of regulations on land owner ship and registration
- Transhumance management and extension of cohabitation system between transnational transhumant and indigenous residents

9) **Related Projects**

Related projects are listed as follows:

- PNIASA with projects which are principle;
- PASA
- PPAAO (Programme de Productivité Agricole en Afrique de l'Ouest)
- PNPER (Projet National de Promotion de l'Entreprenariat Rural)
- Project ESOP (Entreprises de Services et Organisations de Producteurs), etc.

10) **Social and Environmental Impacts**

The following social and environmental impacts should be taken into account:

- Consideration of transnational transhumant and indigenous residents
- Consideration of gender and more vulnerable people
- Environmental and social strategies evaluation in accordance with the Togolese regulations and procedures of the African Development Bank.

28.3 Fisheries Sector of Togo

28.3.1 Present Situation of Fisheries Sector in Togo

Fishing in Togo is essentially artisanal and practiced both at sea and on inland water courses. Mainly women living in fishing villages smoke these fish and sell them at the market. Besides artisanal fishery, there is also a marine industrial fishery subsector, but the amount of capture is at a very low scale.

The demand for fish follows the population growth in Togo, and in year 2010, the fish demand was estimated at 47,672 ton. To meet this growing demand, Togo has been importing fish mainly from the African countries such as Senegal and Mauritania. Since 2008, Togo has also been importing tilapia from China.

Fish production amount has increased considerably over the period between 2012-2015. Artisanal fishing is the most important fishery and its production (80% of the national production). On Lake Nangbeto, production increased from 500 to 2029 tonnes. Similarly, fish production is increased to 58 tons in 2015 against 20 tons in 2012. Despite these performances, fish production is still structurally deficient. It is about 25,000 tons / year covering only 35% of national requirements. Fish production, on the other hand, remains derisory.

The main problems are the low level of technical knowledge of the actors, the use of inadequate fishing gear, the difficulty of access to aquaculture inputs, the adverse effects of climate change on water resources and the difficulty of Access to sector funding.

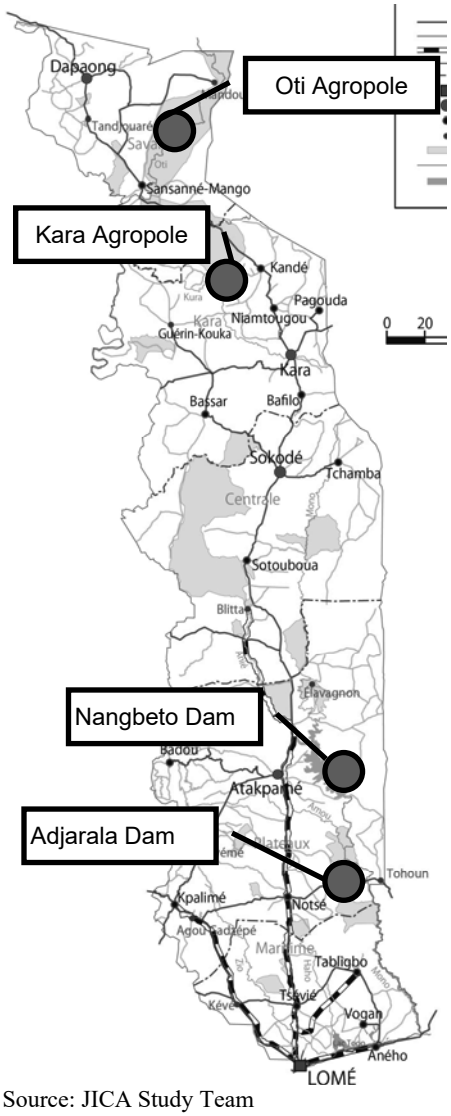
Despite this situation, the fishing port at Lomé has been forced to the fringe due to the strategic development of Lomé Port, and environmental and safety issues have arisen. In April 2016, the Governments of Togo and Japan signed a grant agreement for the Project for Construction of Lomé Fishing Port which can help improve the condition of marine fisheries in Togo.

The national aquaculture production was only 20 ton per year in 2010. However, aquaculture is gradually developing in Togo. In recent years, aquaculture using $1m^3$ plastic tanks to farm catfish

started in Lomé importing necessary equipment from Ghana. Such method of aquaculture has been popular in Nigeria in the past decade. These catfish gown in plastic tanks are sold in Lomé frozen or smoked for exporting to Lagos. In one $1m^3$ tank it is possible to grow 200 catfish per year which is equivalent to 0.2 ton. On the other hand, tilapia farming is taking place mainly in the backwaters of Nangbeto Dam in the east of Togo. In addition to Nangbeto Dam, construction of Adjarala Dam is planned for hydropower close to the boarder of Benin. This dam will also become a great potential area for future aquaculture development.

Togo is also promoting agropole development at Kara and Oti which includes the fisheries sector.

Besides the above, in the Maritime Region, coastal areas with aquaculture potential exist including rivers, lagoons, water reservoirs and coastal waters. This area covers an area of about 380,000 ha.



Source: JICA Study Team

Figure 28.3.1 Potential Area for Fisheries in Togo

28.3.2 Issues regarding Fisheries Sector of Togo

The following issues exist regarding the fisheries sector in Togo:

- Increasing demand for fish products in pace with the growth of the population
- Fish stock in the Gulf of Guinea can decline due to heavy industry development and lack of information on stock assessment
- Relocation of the fishing commune of Katanga for the construction of new Lomé Fishing Port which can affect the people making their living from smoking fish
- Lack of road connection between potential fishing areas and the main corridor

28.3.3 Objectives for Fisheries Sector of Togo

The objectives of the fisheries sector development in Togo are determined as follows:

- To develop maritime fishing in a sustainable manner to enhance the fishery resources in the Gulf of Guinea for the future
- To develop aquaculture to fulfil the county's demand and also to supply fish products to Nigeria
- To improve the living standard of people engaged in the fisheries industry

28.3.4 Strategies for Fisheries Sector of Togo

The strategies for the fisheries sector development in Togo are the following:

- To promote fishery related industry in Lomé taking advantage of the corridor development and construction of new Lomé Fishing Port
- To enforce measures against illegal, unreported an unregulated (IUU) fishing
- To improve sustainable management of the fishery resource through the development of fisheries management plans on water bodies

- To increase the production of tilapia and catfish by promoting aquaculture at Nangbeto Dam and Adjarala Dam
- To improve the road network connecting potential aquaculture areas in Togo

28.3.5 Programmes and Projects for Fisheries Sector of Togo

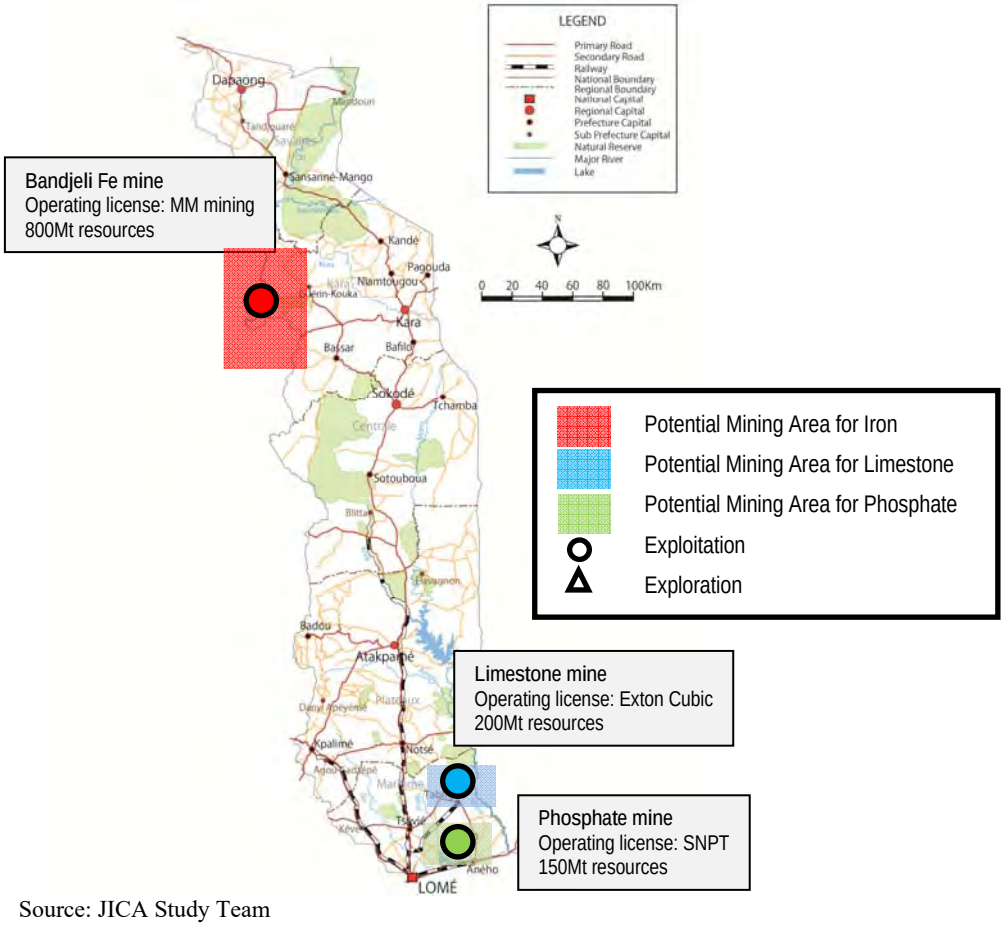
The following programmes and projects are proposed for the fisheries sector in Togo:

- Project for developing fishery related industries such as fish feed and fish processing at Lomé and Kara by preparing a light industrial area for food processing
- Programme for Aquaculture Development at Nangbeto Dam and Adjarala Dam
  - ➢ Development of Road Network between Nangbeto Dam and Adjarala Dam, and Local Urban Centres
  - ➢ Establishment of a Value Chain for Aquaculture

28.4 Mining Sector of Togo

28.4.1 Current Situation of Mining Sector in Togo

Phosphate and limestone are the two important mineral resources in Togo. In addition to that, an iron mine has been producing but it is currently suspended due to the low metal price although its exploitation potential is high.



Source: JICA Study Team

Figure 28.4.1 Existing and Potential Mining Sites in Togo

Table 28.4.1 Mineral Reserves and Resources and Production Forecast of Main Mines in Togo

Ore Deposit	Reserves and Resources	Production forecast
SNPT Phosphate mine (Operating)	150 million tons resources**	3 million tons/year*
Elenilto Phosphate mine (Not developed)		High production rate of 5 million tons /year**
Scantogo Limestone mine (Operating)	200 million tons resources***	2016: 1 million tons/year**** 2017: 2 million tons/year****
Wacem Limestone mine (Operating)		2016: 1 million tons/year*** 2017: 1 million tons/year***
Bandjeli Fe mine (Suspended)	800 million tons resources**	100,000/year

Source*: SNPT, 2016
Source**: Elenilto homepage,
http://www.elenilto.com/press/elenilto-rejoint-le-geant-chinois-wengfu-pour-lappel-doffre-relatif-au-phosphate-du-togo/
Source***: Ministry of Mines and Energy, 2015
Source****: CIMTOGO, 2016

(1) Phosphate Mines

1) SNPT Phosphate Mine

SNPT Phosphate mining is the most important source of revenue for the government of Togo. It is operated by the Societe Nouvelle des Phosphates de Togo (SNPT), a state-owned company that specializes in the mining, processing and marketing of phosphate in Togo. Togo's vast phosphate reserves include carbonated phosphate deposits with a life expectancy estimated to be more than 100 years, even with a significant per annum extraction rate. Phosphate is being mined in the coastal basin of Togo in the region of Hahotoé and Kpogamé through large investments in the past. However, total production per annum still remains far below expectations. One of the reasons for the low productivity of Phosphate is because the company does not have good mining management systems or good policy for mining.

2) Elenilto Phosphate deposit

Other than SNPT, Elenilto won the bid to develop a phosphate mine and fertilizer plant in Togo. Elenilto will develop the carbonated phosphate and produce both phosphate ore and fertilizer to export. The production is planned to start in 2017.

(2) Limestone Mines

Tabligbo Limestone Mine

Scantogo is a subsidiary of Heidelberg Cement own the limestone mine in Tabligbo and Wacem (West African Cement) exploits this limestone. They produce 1.8 million tons of limestone per annum. Heidelberg Cement constructed a clinker plant and commenced production at the end of 2014. The plant, with an annual capacity of 1.5 million tons is located near the town of Tabligbo. It was officially opened in the beginning of March 2015 and will supply clinker to Heidelberg Cement's cement grinding plants in Togo and the neighbouring countries such as Benin, Burkina Faso and Ghana. Moreover, they are constructing a cement grinding facility with a capacity of around 250,000 tons in the north of Togo, which is scheduled for completion in 2017. Scantogo will produce more than 2 million tons of clinker in the next few years.

(3) Iron Mine

Bandjeli Iron Mine

The MM mining, an Indian steel company, owns an exploitation permit, and produces iron ore around Bandjeli. Iron resources are estimated at 800 million tons around Bandjeli. The production is now suspended owing to the low metal price. The mining performance by MM mining has not been good from the beginning of production because MM mining does not follow its agreement with the Togolese government. Under this condition, the government wants to withdraw some portions of the exploitation licenses from MM mining.

28.4.2 Issues regarding the Mining Sector of Togo

The following issues are identified for the mining sector in Togo:

- Stagnant mining activities in mineral recession periods
- Non-compliance with agreements between the government and private mining companies concerning development of transport infrastructure for transporting extracted minerals, as well as fuel and equipment for mining activities
- Lack of foreign investments in exploration and extraction of the mining sector
- Shortage of information on mineral resources provided to the private sectors
- Underdevelopment of downstream sectors of mining including processing of mineral resources within the country
- Unsafe condition of mine workers
- Negative impacts of mining projects on surrounding natural and social environments
- Lack of utilization of local people, including women from local communities, as the labour force in mineral resource development in their country.
- Improper mining activities by artisanal small-scale mining

28.4.3 Objectives for Mining Sector of Togo

The objectives for development of the mining sector in Togo are defined as follows:

- To sustain mining activities so that the mining sector could continue to contribute to the national economy and employment
- To develop transport infrastructure for transporting extracted minerals, as well as fuel and equipment for mining activities
- To attract foreign investments in exploration and extraction of the mining sector by providing information on mineral resources
- To create an industrial structure which focuses not only on upstream industries but also downstream sectors including processing of mineral resources within the country
- To ensure the safety of mine workers, and to mitigate the impacts of mining projects on surrounding natural and social environments
- To utilize local people, including women from local communities, as the labour force in mineral resource development in their country.
- To enable artisanal small-scale mining to engage in proper mining activities in full consideration for the environment and local community.

28.4.4 Strategies for Mining Sector of Togo

The following strategies are formulated for development of the mining sector in Togo:

- To select potential target mines, formulate and implement an integrated programme for promoting sustainable mining activities by involving government organizations in charge of mining, railway and roads, as well as investment promotion
- To establish a mineral information data base and open it to the private sectors for supporting investment promotion in the mining sector
- To raise the level of mining policies and laws to the same standards as those in advanced countries and develop mining businesses.
- To distribute taxes and royalties derived from mining activities to local communities and create a funding system that can contribute to community development, in addition to Corporate Social Responsibility (CSR) activities

- To establish a proper monitoring system of artisanal small-scale mining

28.4.5 Programmes and Projects for Mining Sector of Togo

The mine to be targeted for development of the mining sector in Togo follows:

- Bandjeli Iron Mine

Necessary interventions to promote sustainable development of Baddjeli iron mine are as follows:

- Promotion of foreign private investment in order to reactivate Bandjeli iron mine
- Facilitation of PPP scheme by involving foreign private investment for rehabilitation of the railway between Lomé and Blitta and new construction of railway from Blitta and up to Bandjeli mine

28.5 Manufacturing Sector of Togo

28.5.1 Present Situation of Manufacturing Sector in Togo

The Industrial Policy of the Ministry of Commerce, Industry, Private Sector Promotion and Tourism aims to serve as a reference framework for the industrial development. This policy is based on the Strategy for Accelerated Growth and Employment Promotion (SCAPE: *Stratégie de Croissance Accélérée et de Promotion de l'Emploi*), Vision Togo 2030 and West Africa Common Industrial Policy (WACIP).

The overall objective of this policy is to improve the sector's contribution to economic growth and creation of employment. As specific objectives, the following are pursued: (i) integration of the primary sector and the secondary sector; (ii) creation of competitive industrial products, (iii) provision of an opportunity to install industrial processing units by entrepreneurs of Togo and (iv)improvement of management and control of the department.

Four axes and orientations are designated by the Industrial Policy as follows:

1) **Axis 1: Integration of the Agriculture and Industrial Sector**

Despite favourable ground for agricultural and mining potential, the industry faces a shortage of local raw materials. To overcome this problem, the strategies to be implemented are (i) to encourage intensification and expansion of the cultivation of agricultural commodities such as cereals (maize and paddy rice); tubers (yam and cassava); legumes (soy and beans); oilseeds (palm and coconut palm, coconut, shea butter, peanuts, cashew nuts, cotton seed); fruits (pineapple, mango, cashew nuts, bananas); flowers and aromatic and medicinal plants; vegetables (tomatoes); cash crops (coffee, cocoa, cotton), and (ii) to promote the harmonious operation throughout the country according to the comparative advantages of each region and strongly encourage the development of synergies between agriculture, livestock, handicrafts and industry. Currently, this concept is called Agropole development.

2) **Axis 2: Competitive Products and Compliance with Standards**

The national framework of standardization, accreditation, certification and metrology should be developed through public and private research, research and development in universities, research institutions and industrial enterprises. A free zone or science park may be developed in Kara.

3) **Axis 3: Industrial Entrepreneurship**

Difficulty of access to the land is largely determined by traditional practices. In Togo, the only serviced industrial zone, which is based mainly in the port area, is full. The strategies to be implemented are: (i) to acquire and develop industrial sites nationally, (ii) to develop industrial sites in each economic region and (iii) to encourage the development of private industrial parks, all within five years.

4) **Axis 4: Institutional Capacity Building**

The analysis of the sector and interviews with stakeholders at different levels reveal the weakness of the means of intervention. Thus, institutional capacity building and skills development is indispensable for the related agencies/organizations.

28.5.2 Issues regarding the Manufacturing Sector of Togo

Especially from the viewpoint of the corridor development, the following are recognized as issues or constraints for industrial development.

- Low investment in the industrial sector due to the lack of developed industrial sites
- Poor integration of the industrial sector into the other sectors (agriculture, livestock, fisheries, trade, etc.) and limitation of the processing of local raw materials
- Low support to industries due to: (i) the limited manpower and budget of the department, (ii) non-operationalization of the Agency for Investment Promotion and Free Zones (API-ZF) because of not enforcing the Investment Code 2012, and (iii) low synergy between support agencies for the industries.
- Except for the Maritime region, there are no significant accumulations of industries in the other regions, which is explained by (i) lack of infrastructure (lack of developed industrial zones, inadequate communication channels, low extension of ICT, etc.) and (ii) difficulty with supply of raw materials.

28.5.3 Objectives for Manufacturing Sector of Togo

Major objectives for the manufacturing sector are;

- To develop free zones and industrial zones, especially along North-South Corridor in accordance with the appropriate type of industrial subsector,
- To develop “Agropole” to integrate the industrial sector into the other sectors (agriculture, livestock, fisheries, trade, etc.) and to increase the processing of local raw materials
- To strengthen the capacity of support organizations for industries

28.5.4 Strategies for Manufacturing Sector of Togo

The strategies for the manufacturing sector of Togo are determined as follows:

- To develop free zones and industrial zones along the Coastal and North-South Corridors,
- To strengthen the capacity of the Agency for Investment Promotion and Free Zones (API-ZF),
- To introduce the following expected types of industrial sub-sectors such as food, beverages, and plastics for industrial zones along the Coastal and North-South Corridors as shown in Table 28.5.1 which can be consumed by the emerging middle income population in the sub-region.
- To develop parts and intermediate goods manufacturing for motor vehicles and electrical and electronics industries in the long-term basis along the Coastal Corridor aiming at the large market of Nigeria

Table 28.5.1 Expected Type of Industries in Togo

Classification of sub-sector/ISIC	Prioritized types of sub-sector by Ministry of Commerce and Industry in the whole country	Typical types of industries in major cities along the East-West Corridor factors	Existing types of industries in major cities along the East-West Corridor	Expected Types of Industries in major cities along the Coastal Corridor	Typical types of industries along North-South Corridor such as Kara	Existing types of industries along North-South Corridor such as Kara	Expected Types of Industries along North-South Corridor such as Kara
10 - Manufacture of food products (Based on cocoa, coffee, cereals, etc.)	V	V	V	X	V	V	X
11 - Manufacture of beverages	V	V	V	X		V	X
12 - Manufacture of tobacco products							
13 - Manufacture of textiles (cotton)		V			V		X
14 - Manufacture of wearing apparel		V	V	X	V	V	X
15 - Manufacture of leather and related products							
16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials		V	V	X			
17 - Manufacture of paper and paper products		V					
18 - Printing and reproduction of recorded media		V	V	X			
19 - Manufacture of coke and refined petroleum products		V					
20 - Manufacture of chemicals and chemical products	V	V	V	X			X*
21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations	V	V	V	X			
22 - Manufacture of rubber and plastics products		V	V	X	V	V	X
23 - Manufacture of other non-metallic mineral products (clinker, cement, etc.)	V	V	V	X		V	X
24 - Manufacture of basic metals		V					
25 - Manufacture of fabricated metal products, except machinery and equipment		V	V	X		V	X
26 - Manufacture of computer, electronic and optical products		V					
27 - Manufacture of electrical equipment		V					
28 - Manufacture of machinery and equipment		V	V	X		V	X
29 - Manufacture of motor vehicles, trailers and semi-trailers		V					
30 - Manufacture of other transport equipment		V					
31 - Manufacture of furniture		V	V	X		V	X
32 - Other manufacturing (wig, etc.)			V	X			
33 - Repair and installation of machinery and equipment			V	X		V	X

Source: JICA Study Team based on the Industrial Policy of the Ministry of Commerce, Industry, Private Sector Promotion and Tourism, and various documents on industrial location factor by Industrial Location Center of Japan

Note*: Phosphate-based fertilizer industries may be promising if there is enough demand in the surrounding countries.

28.5.5 Programmes and Projects for Manufacturing Sector of Togo[1]

The following programmes and projects are proposed:

- Development of Adetikopé free zone (80 ha) with introduction of expected or prioritized types of subsector
- Development of Kara free zone (35 ha) with introduction of expected or prioritized type of subsectors
- Development of Kanykpedji free zone (200 ha), which is located 55 km north of Lomé.
- Provision of support programmes for Agency for Investment Promotion and Free Zones (API-ZF: Agence de Promotion des Investissements et des Zones Franches) for smooth

[1] Development concept of agropole is discussed in the agriculture sector.

implementation of the investment promotion and industrial zone development through the managerial and technical training based on lessons learnt in other countries.

- Development of Tsévié Free Zone (100 ha)

28.5.6 Profiles of Priority Projects for Manufacturing Sector of Togo

(1) Project for Construction of Industrial Park including Free Zone in Kara

1) **Project Outline**

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT.

The population of Kara City was 117,000 in 2015. It is forecast that Kara's population is to be 334,000 by 2040. Kara is located on the Lomé-Ouagadougou Corridor. By upgrading of the road of the Lomé-Ouagadougou Corridor, and by providing economic infrastructures, Kara will be able to play a role of one of the major regional centres and agricultural, industrial, logistical, and commercial centres in the northern areas of Togo.

The project aims to construct and manage an industrial park in Kara for the purpose of attracting investment for manufacturing sectors including agro-processing industries utilizing local products. The project will provide divided lots with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park.

The Agency for Investment Promotion and Free Zones (API-ZF) will be in charge of developing the industrial park (35 ha) in Kara by promoting a PPP scheme.

2) **Funding Scheme**

ODA Loan

3) **Estimated Project Cost**

US$ 25 million

(2) Project for Construction of Industrial Park including Free Zone in Sokodé

1) **Project Outline**

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT.

The population of Sokodé City was 119,000 in 2015. It is forecast that Sokodé's population is to be 343,000 by 2040. Sokodé is located on the Lomé-Ouagadougou Corridor. By upgrading of the road of the Lomé-Ouagadougou Corridor, and by providing economic infrastructures, Sokodé will be able to play a role of one of the major regional centres and agricultural, industrial, logistical, and commercial centres in the northern areas of Togo.

The project aims to construct and manage an industrial park in Sokodé for the purpose of attracting investment for manufacturing sectors including agro-processing industries utilizing local products.

The project will provide divided lots with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park.

The Agency for Investment Promotion and Free Zones (API-ZF) will be in charge of developing the industrial park (35 ha) in Sokodé by promoting a PPP scheme.

2) **Funding Scheme**

ODA Loan

3) **Estimated Project Cost**

US$ 25 million

(3) Project for Construction of Industrial Park along the Motorway in Greater Lomé

1) **Project Outline**

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply, industrial parks and ICT.

Considering the current economic and infrastructure situation, the government policies are based on the understanding that Togo should seek strengthening of service industries, including logistics. However, in accordance with the SCAPE (Togo's national development plan), development of the manufacturing sector is one of the pillars for national development.

The Ministry of Commerce, Industry Private Sector Promotion and Tourism has a plan for developing industrial parks with export processing zones in the following locations:

- Adetikopé free zone (80 ha) : 18 km from Lomé
- Tsévié Free Zone (100 ha): 32 km from Lomé
- Kanykpedji free zone (200 ha): 55 km north of Lomé

The Agency for Investment Promotion and Free Zones (Agence de Promotion des Investissements et des Zones Franches: API-ZF) is in charge of implementation of the projects for construction and management of industrial parks, by utilizing a PPP scheme.

Greater Lomé is one of the important industrial centres in the country. The population of Greater Lomé was 2.0 million in 2015. It is forecast that Greater Lomé's population is to be 5.0 million by 2040.

The project aims to construct and manage an industrial and logistics park, which is to be located along the prospective sections of the Abidjan-Lagos Motorway. This project is based on the strategic location of Greater Lomé that is not only close to Greater Accra (197 km from Lomé), but also to Greater Lagos (273 km from Lomé).

The project will start with land of 100 ha at the initial phase. Then this project will continue to expand its size of industrial park up to 500 ha or more, for the purpose of attracting manufacturing and logistics industries. The project will provide divided lots with adequate infrastructure including electricity, water drainage and telecommunications. The project will also provide management services for factories in the industrial park.

2) **Funding Scheme**

ODA Loan or PPP

3) **Estimated Project Cost**

US$ 70 million

(4) Adetikopé Free Zone Project

1) **Rationale**

Adetikopé is located in the Maritime Region 20 km north of Lomé along the Lomé - Ouagadougou Corridor.

To cope with industrial saturation in the existing free zone and congestion of economic activities (including transport) of the Lomé port area and Grand Lomé, this project is proposed by SAZOF/API-ZF and the Ministry of Commerce, Industry, Private Sector Promotion and Tourism through a PPP scheme. Also, Adetikopé is a possible location of a new truck terminal.

2) **Objective**

- To provide industrial enterprises with industrial space in which qualified infrastructure and management services are available
- To attract foreign investors in a free zone in Adetikopé along the North-South Corridor

3) **Project Description**

The project descriptions are as below.

- To conduct land development of 80 ha for an Industrial Free Zone for exporting industries
- To provide divided lots with adequate infrastructures including electricity, water drainage and telecommunications

Also, the Project is to provide management services for enterprises located in the free zone. Based on a study by SAZOF, total development cost for Adetikopé Free Zone amounts approximately to CFA 30.6 billion.

4) **Expected Benefits**

The following impacts and benefits are expected in this project:

- Effective and efficient development of industrial sector with an expected truck terminal function along the North-South Corridor.
- Decentralization of the industrial accumulation from Lomé

5) **Executing Agency and Related Institutions**

SAZOF (or API-ZF) and the Ministry of Commerce, Industry, Private Sector Promotion and Tourism would be the executing agency for the Project with private developers through PPP schemes. SAZOF (or API-ZF) and a private developer will be responsible for basic design and detailed design of the industrial zone, preparation of management plans for the industrial free zone and implementation of EIA in cooperation with the local administration.

6) **Implementation Schedule**

The implementation schedule for this project is shown in the table below.

Table 28.5.2 Implementation Schedule for Adetikopé Free Zone Project

Item/Activity	Year 1	Year 2	Year 3	Year 4	Note
1. Component 1 Planning & Promotion					Technical & Financial Support will be necessary.
2. Component 2 Design Works					
Preparatory Works					
Construction					

Source: JICA Study Team

7) **Necessary Actions for Implementation / Critical Factor**

Land acquisition for the project site and selection of a private developer is necessary for implementing this project.

8) **Related Projects**

Development plans for the new truck terminal should be taken into consideration.

28.6 Information and Communication Technology (ICT) Industry of Togo

28.6.1 Present Situation and Future Prospects of ICT Industry in Togo

Togo, despite its small size, is a central country in the West African sub-region because of its geographical location. It is surrounded by Côte d'Ivoire, Ghana, Burkina Faso, Benin and Nigeria and now houses a new international airport as well as the safest port in the sub-region. It is thus at the heart of the growth ring. Faced with this position of choice of central platform of international exchanges in the sub-region, the accelerated development of ICT in Togo is a real necessity that the country intends to implement well. Strengthening ICT infrastructure and improving the quality of telecommunication services will improve the business climate, ensure certain attractiveness for foreign investors and foreign companies, facilitate and strengthen the socio-economic development of the country.

(1) ICT Policy

The Strategy for Accelerated Growth and Employment Promotion 2013-2017 (SCAPE) states that "Togo aims to enter the information society by becoming a showcase in the sub-region for ICT".

Togo aims to become a genuine hub in the sub-region for ICT in the sub-region by strengthening its infrastructure and the quality of its telecommunication services. Togo will thus contribute directly to the development of the sub-region, not only to that of its own country by offering transnational services (purchasing international bandwidth, storing data, etc.).

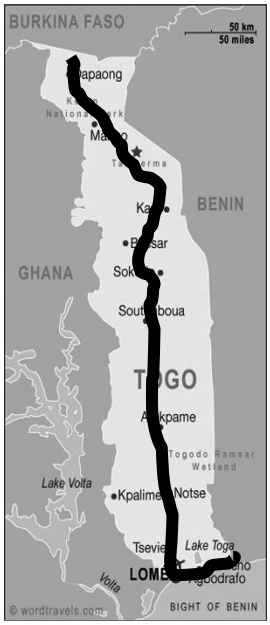
This will contribute both to national development and sub-regional development through the strengthening of ICT becoming firmly established by the Togolese State.

(2) Telecommunication Network

The backbone network of fibre optic cables is currently being operated by the Togo Telecom State Company with its subsidiary Togocel, which have almost a monopoly. However, their quality is unreliable. Other telecommunications operators have set up network lines based on the wireless network.

The mobile phone service is also a monopoly and the 3G zone is very limited. Regarding mobile telephony, however, the monopoly is held by two Togocel and Moov operators not only by Togocel.

Land lines are not well integrated. Therefore, broadband connection is very difficult in this country



Source: JICA Study Team by report from MPNE

Figure 28.6.1 Telecommunication Network in Togo

(3) ICT Park/Data Centre

There is a plan for a Data Centre.

(4) Human Resources Development

At present there are only a few public and private schools training in ICT. Apart from these, no notable training institution is involved in the development of human resources in the field of ICT. But the construction of an establishment for this purpose is being planned. The Centre of Innovation is not, however, intended to replace schools or universities or to provide full training of several years. Training will be of two types:

- Incubation and acceleration programs lasting from 3 months to 1 year for young entrepreneurs and start-uppers throughout the sub-region:
- Workshops, seminars and conferences organized occasionally to initiate studies in: business management, computer programming, accounting, law, etc.

Finally, another project, which is also underway (the setting up of Digital Work Environments) in schools, is partly aimed at modernizing and updating the training provided in these establishments to, among other things, fulfil the needs of the labour market.

(5) ICT Services

The size of the local market is still very limited. Suppliers therefore depend on public projects while some companies target foreign markets. Concerning ICT services, it should be pointed out here that two of the problems encountered concerning the services offered by operators to the population are:

The relatively high cost;

The lack of competence or willingness of the personnel employed for customer service and maintenance to be carried out.

(6) Future Prospect

The current situation and future prospects of ICT sector in Togo can be proposed as below.

Table 28.6.1 Current Situation and Future Prospects of ICT Sector in Togo

	Present	2025	2040
Individuals using Internet	4.50% (2013)	40.0% (World Ave. 2014)	60%
Broadband subscription	0.10% (2013 only fixed line)	5%	10%
ICT HRs		5,000	20,000

Source: JICA Study Team based on ITU statistics and estimation

Improved ICT will support the development of other infrastructure such as corridors and industries along the corridors. Necessary measures must be taken and adopted prior to the implementation of the new corridor infrastructure. In this sense, the development of ICT infrastructure should be a priority with a major focus on delivering quality ICT services

28.6.2 Issues on ICT Infrastructure of Togo

In the ICT infrastructure sector of Togo, the following issues are identified.

(1) ICT Infrastructure

- There are no reliable trunk lines without redundant configuration
- There are very unstable telecommunication services, especially for data communications
- There are few facilities that can reach users except wireless connection (2G level)
- There are no facilities to run IT systems stably and safely
- There are few opportunities for citizens to be served by optic fibre connections or broadband wireless for more utilization of IT applications with internet connection and facilities to access them
- There are no well facilitated data centres where valuable data are stored in a secure way and many types of ICT services can be provided to various types of users

(2) Human Resources Development

Although there is a plan to create an organized HR development system, none currently exists in Togo.

- Graduates from computer science schools have few opportunities to get good jobs in the country. Therefore many graduates leave the country.
- Implementing more public projects is expected to create more opportunities to participate in actual projects.

(3) ICT Services

The ICT sector in Togo is almost non-existent. It is characterized only by the activities of telecommunication operators. The services offered are insufficient and the infrastructures obsolete, but since the improvement of the quality of the 3G in Lomé, there is an increase in the number of subscribers and subscription requests.

28.6.3 Objectives for Development of ICT Industry of Togo

The objectives for development of the ICT industry of Togo are as follows:

- To upgrade the telecommunication infrastructure:
- To provide more opportunities to use ICT so that ICT will be reachable by all the citizens of

Togo

28.6.4 Strategies for ICT Industry of Togo

The strategies for the development of the ICT industry of Togo are determined as follows:

- To upgrade telecommunication infrastructure to achieve higher reliability:
- To provide more opportunities to use ICT for all the citizens in Togo not only telecommunication by providing equipment to access ICT and also user-friendly applications:
- To facilitate and develop the human resources necessary to expand the ICT infrastructure and ICT accessibility to avoid procurement by foreign companies:
- To create a domestic ICT industry with the assistance of foreign investment.

28.6.5 Programmes and Projects for ICT Industry of Togo

The following projects are proposed for ICT industry:

- Rehabilitation and construction of the backbone
- Construction of a New Data Centre and an IXP in Lomé
- Construction of an Innovation Cluster
- Construction of a Network Access Centre in rural areas
- Establishment of connection in the Universities Network. The network connection is also implemented within the framework of the ENT project in technical high schools.

28.6.6 Profiles of Priority Projects for ICT Infrastructure of Togo

Togo intends to contribute actively to the socio-economic development not only of the Togolese population but also of those of the sub-region. The two projects presented for the ICT sector will enhance the exchange of skills.

There are two priority projects in Togo

- Project for Construction and Operation of Data Centre in Greater Lomé
- Project for Human Resourced Development for ICT Specialists
- Project for Improvement of ICT Connection (including Construction of Fibre Optic Cable from Lomé to Cinkassé)

(1) Project for Construction and Operation of Data Centre in Greater Lomé

1) **Rationale**

The candidate location is in the city of Lomé which is along both Abidjan-Lagos and Lomé-Ouagadougou Corridors as well as Lomé Port which are the strategic logistic hubs where the data centre can easily provide ICT services to any entity on the corridor.

The project is in relation with the following national plan:

- Strategy for Accelerated Growth and Promotion of Employment 2010-2015 (SCAPE 2010-2015)

2) **Objective**

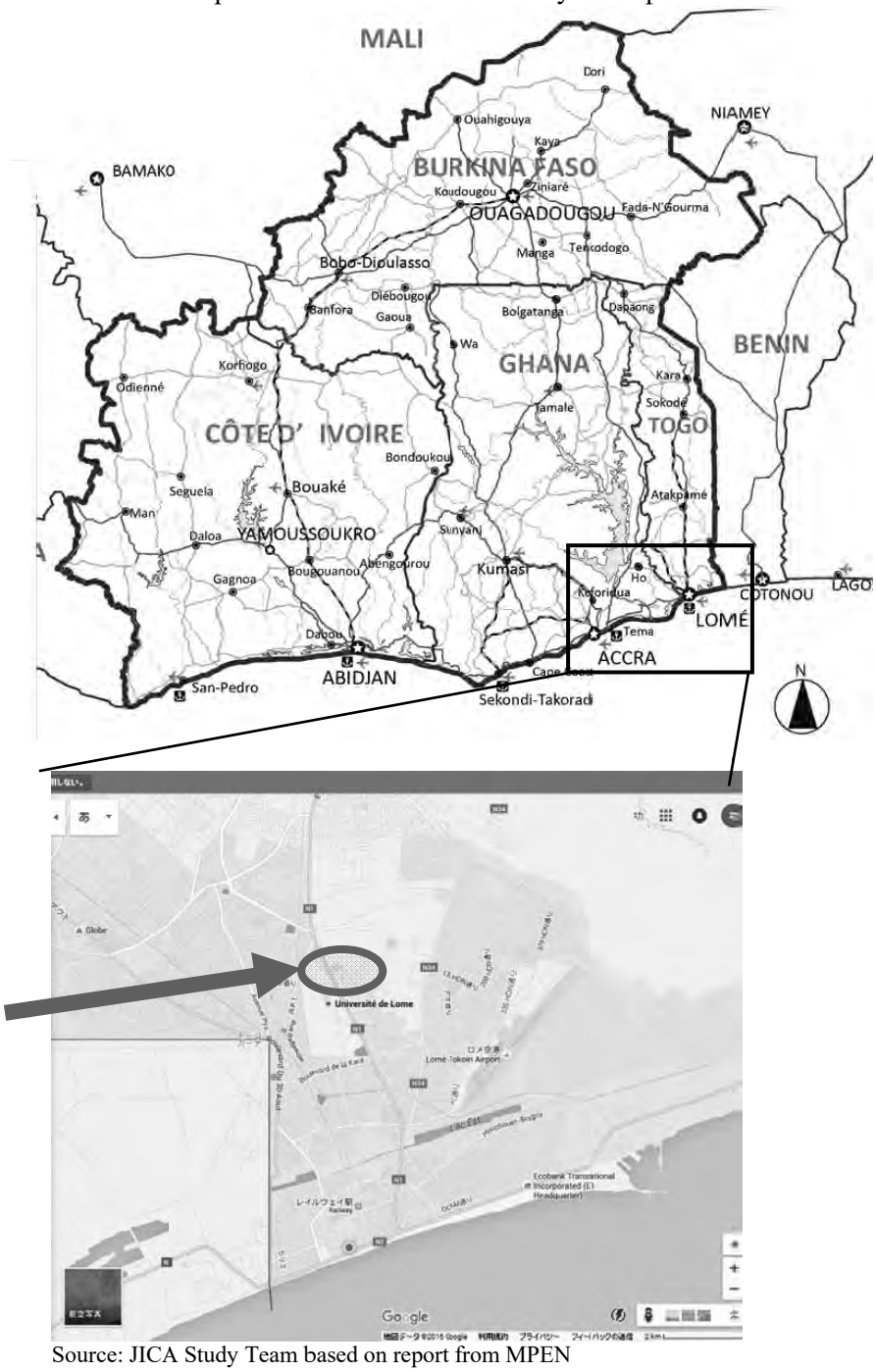
The objectives of this project are as follows:

- Construct the country's first well-dressed data centre to provide ICT services to government offices, existing and future enterprises, and the citizens;
- Many ICT resources will gather in the place to serve all of the public and private entities;
- Create a trigger to launch the ICT industry;

3) **Project Description**

The project descriptions are as below:

- New Tier 3 data centre construction, which has 500m^2 spaces in the north inside the city of Lomé;
- Necessary facilities such as redundant electricity, telecommunication lines, generators, air-conditioners, UPSs, etc.;
- A network operation centre will be built in a place remote from the centre (inside the Ministry of Posts and Digital Economy);
- Prepare office spaces where ICT human resources can be accommodated;
- Technical assistance to implement efficient and secure system operation.



Source: JICA Study Team based on report from MPEN

Figure 28.6.2 Project Location for Data Centre Construction Project

4) **Expected Benefits**

The following benefits are expected in this project:

- Strengthen other sectors by offering easier utilization of ICT;
- More services and contents to the citizens;
- Usage of domestic services rather than foreign services. This contributes to the improvement of the national economy;
- Supports the concept of a hub port and hub airport;

5) **Executing Agency and Related Institution**

Expected executing agency for this project is as below.

- Ministry of Posts and Digital Economy

6) **Estimated Project Cost**

Estimated project cost for this project is US$ 8 – 10 mil.

7) **Implementation Schedule**

The implementation schedule for this project is shown in the table below.

Table 28.6.2 Implementation Schedule for Data Centre Construction Project in Togo

Item/Activity	Year 1 (2017)	Year 2 (2018)	Year 3 (2019)	Year 4 (2020)	Year 5 (2021)	Year 6 (2022)	Note
Design							
Construction							
HR development for System Operation							

Source: JICA Study Team

8) **Necessary Actions for Implementation / Critical Factor**

Necessary actions for implementing this priority project are as follows:

- Waiting for study report which will be issued in the middle of May/2016

9) **Estimated Project Cost**

US$ 15 million

(2) Project for Improvement of ICT Connection (including Construction of Fibre Optic Cable from Lomé to Cinkassé)

1) **Rationale**

The city of Lomé is located along the Abidjan-Lagos and Lomé-Ouagadougou corridors as well as the Port of Lomé, which are the strategic logistics poles where the data center can easily be established and provide ICT services to any entity of the Corridor.

The project is in relation with the following national plan:

- Strategy for Accelerated Growth and Promotion of Employment 2010-2015 (SCAPE 2010-2015)

2) **Objectives of the Project**

The objectives of this Project are as follows:

- Strengthen ICT infrastructure;
- Bring broadband Internet to the entire population throughout the country so that no Togolese is

more than 5km from a high-speed Internet access point;
- Combat the digital exclusion of a large part of the territory; and
- Ensure lower prices charged by operators.

3) **Project Description**

The project descriptions are as shown below:

- The refurbishment of the South North backbone of Aného - Lomé - Cinkassé;
- Securing the main backbone;
- The connection of all mobile sites to this backbone by the progressive construction of ramps to link the main sites (major cities, national roads, medium-sized towns, economic interest zones, etc.) and secondary sites (small towns, Localities according to the number of inhabitants, etc.).

4) **Expected Benefits**

The following benefits are expected in this project:

- Stronger telecom infrastructures;
- Better penetration;
- Better connectivity throughout the country; and
- Reduced costs; and
- The democratization of Internet tools.
- Use of internal services rather than foreign services. This contributes to the improvement of the national economy

5) **Executing Agencies and Related Institution**

Expected executing agencies for this project are shown below:

- Ministry of Posts and Digital Economy
- Togo Telecom

6) **Estimated Project Cost**

Expected project cost is US$40 mil.

7) **Implementation Schedule**

The implementation schedule for this project is shown in the table below:

Table 28.6.3 Implementation Schedule for Backbone Network Project in Togo

Item/Activity	Year 1 (2017)	Year 2 (2018)	Year 3 (2019)	Year 4 (2020)
Design				
Construction				

Source: JICA Study Team

8) **Necessary Actions for Implementation / Critical Factor**

The key factor in implementing this priority project is:

- The choice of the most interesting scenario

(3) Innovation Hub Construction Project

1) **Rationale**

The candidate location is located in the city of Lomé which is along both the Abidjan-Lagos and Lomé-Ouagadougou Corridors as well as Lomé Port which are the strategic logistic hubs where the data centre can easily provide ICT services to any of the entities on the corridor.

The project is in relation with the following national plan:

- Strategy for Accelerated Growth and Promotion of Employment 2010-2015 (SCAPE 2010-2015)

2) **Objectives of the Project**

It is necessary to tackle unemployment and underemployment, increase the support and opportunities offered to young Togolese to work in the professional world, and support and strengthen initiatives and entrepreneurship.

In pursuit of this objective and the economic and social development of Africa inevitably involving digital, technology, innovation and research, Togo aims to build an innovation center in Lomé, the capital of Togo.

The objectives of this project are as follows:

- Promote and support ICT entrepreneurship in Togo
- Reduce the unemployment rate and underemployment by encouraging entrepreneurship
- Democratize information technology, and more widely, the use of ICT tools (numerical control machines, programming, etc.)
- Provide ICT resources and low-cost workspaces for Togolese youth
- Ensure that Togolese youth take part in the digital revolution in progress and boost the sector;
- Provide a pool of computer skills to respond to ad hoc government requests
- Build facilities for ICT human resources including entrepreneurs
- Strengthen the capacity of ICT human resources and their effective use
- Create new job opportunities and solve the lack of available ICT resources for the public and private sectors.

3) **Project Description**

The project descriptions are as shown below:

- Construction on 3,000m^2 of a building comprising
- Two support structures for business start-ups (incubators), including work and training spaces;
- Fablab prototyping workshops
- A media library
- A cyber-snack and accommodation space to accommodate Togolese from within the country on a trip to the capital during a conference or an acceleration program
- A well-established offer for start-ups, including low-cost offices for start-ups to establish their headquarters, a mailbox and a switchboard operator. Development of programs, such as training and incubation programs, organization of workshops, seminars and conferences
- Installation of necessary facilities such as redundant electricity, high-speed Internet connection, telecommunication lines, generators, air conditioners, inverters, 3D printer, computer-controlled machine tools, etc.

The innovation centre will be built in the centre of Lomé, in the Quartier des Etoiles.

The study report should have been issued in middle of May 2016.

4) **Expected Benefits**

The following benefits are expected in this project:

- Increase employment opportunities
- Develop more ICT human resources
- Usage of domestic services rather than foreign services. This contributes to the improvement of

the national economy

5) **Executing Agency and Related Institution**

Expected executing agency for this project is shown below:

- Ministry of Posts and Digital Economy

6) **Estimated Project Cost**

Expected project cost is US$2 mil.

7) **Implementation Schedule**

The implementation schedule for this project is shown in the table below.

Table 28.6.4 Implementation Schedule for Innovation Hub Construction Project in Togo

Item/Activity	Year 1 (2017)	Year 2 (2018)	Year 3 (2019)	Note
Design				
Construction				
Programme Development				

Source: JICA Study Team

8) **Necessary Actions for Implementation / Critical Factor**

Necessary actions for implementing this priority project are as follows:

- Waiting for study report which will be issued in the middle of May/2016

28.7 Investment Promotion of Togo

28.7.1 Present Situation of Investment Promotion of Togo

The Togolese National Assembly adopted the 2012 Investment Code, which prescribes equal treatment for Togolese and foreign businesses and investors; free management and circulation of capital for foreign investors; respect for private property; protection of private investment against expropriation; and investment dispute resolution regulation.

Currently, no organization for investment promotion exists. In the near future, however, the Free Zone Authority (SAZOF: *Société d'Administration des Zones Franches*), which has been responsible for administering free zones since 1990, is expected to be replaced by the Agency for Investment Promotion and Free Zones (API-ZF: *Agence de Promotion des Investissements et des Zones Franches*).

The latest value for FDI into Togo was US$84.2 million as of 2013. The percentage of FDI to GDP was 1.9 percent in 2013 and that to GFCF was 10.4 percent in 2012. The sectors that attract most of the foreign investment are phosphates, cotton, coffee and cocoa.

28.7.2 Issues on Investment Promotion of Togo

The following points are determined as issues for investment promotion in Togo:

- Limited information about not only the investment environment but also general information such as life styles in the country
- No enforcement of the 2012 Investment Code
- Absence of an investment promotion agency
- Difficulty of attracting FDI because of limited market size in Togo

28.7.3 Objectives for Investment Promotion of Togo

The objectives of the investment promotion for Togo are as follows:

- To create more favourable investment environment for Togo and WAGRIC Sub-Region
- To take advantage of the integrated and expanded sub-regional markets, especially coastal markets for attracting investment to economic sectors of Togo targeting the growing coastal markets
- To attract investment to the mining sector

28.7.4 Strategies for Investment Promotion of Togo

The basic strategies for the investment promotion are the following:

- To remove restrictions on investment for improving the business climate
- To offer more appropriate services to potential investors by capacity building of API-ZF
- To promote private investment with strategic focuses on specific economic sectors, which are agriculture, livestock and agro-processing sectors targeting growing sub-regional markets
- To attract FDI to economic sectors oriented to sub-regional markets by utilizing the merit of customs union under UEMOA and ECOWAS, which is establishment of integrated and expanded sub-regional markets
- To attract investment to the mining sector, at the same time attracting investment to necessary transport development for mining development

28.7.5 Possible Measures for the Investment Promotion

The following measures are proposed:

- Policy arrangement for a stable business climate
- Strengthening of the institutional capacity of the API-ZF and other public agencies in charge of investment promotion and business climate policy
- Promotion of investment to priority projects for Togo, utilizing the enlarged market due to economic and physical integration.

28.7.6 Programmes and Projects for Investment Promotion of Togo

(1) Projects for Investment Promotion for Growth Economic Sectors

Investment promotion projects in the table below should be implemented in Togo to take advantage of integration and expansion of sub-regional markets as well as to increase the number of middle income population.

Table 28.7.1 Priority Projects for Investment Promotion for Growth Economic Sectors in Togo

Sector	Project	Short Term (2018-25)	Mid Term (2026-33)	Long Term (2034-40)
Agriculture	Investment Promotion for Development of Three Agropoles (Oti, Kara and Mono) in Inland Areas	●		
	Investment Promotion for Development of Agropoles and Mini-Agropoles in Inland Areas		●	●
Manufacturing	Investment Promotion of Manufacturing and Logistics Industries in Greater Lomé	●	●	●
	Investment Promotion of Manufacturing in Kara and Sokodé	●	●	●
Mining	Investment Promotion for Reactivating Bandjeli Iron Ore Mining and Railway Construction between Lomé and Kabou	●		
	Investment Promotion for Reactivating Bandjeli Iron Mine		●	
Aquaculture	Investment Promotion for Aquaculture at Nangbéto Dam	●		
	Investment Promotion for Aquaculture at Adjarala Dam		●	

Source: JICA Study Team

(2) Capacity development programmes for API-ZF

1) **Programme for Strengthening Information Services of SAZOF/API-ZF for the Private Sector**

- Provision of information and services regarding the investment climate (e.g. Cooperation with Japan External Trade Organization (JETRO))
- Promotion of mutual exchanges of information regarding investment (e.g. organizing investment seminars, dispatching investment missions, creating local company database)

2) **Programme for Formulating Investment Policy and Implementation in Law Enforcement by Expanding Capacity of Investment Promotion Institutions in Togo**

- Clarification of investment promotion policy (e.g. Promotion of public-private dialogue to fully understand investor's needs, Technical training program for assisting in the formulation of investment promotion policies on the basis of the country's strengths and weaknesses)
- Establishment of the API-ZF in charge of investment promotion and business climate policy
- Development of human resources for the newly established API-ZF (e.g. learning good practices in developing countries which are successful for attracting foreign direct investment, dispatching experts who are working as advisors on investment promotion to organize investment seminars and plan and manage investment missions)
- Strengthening of cooperation among related organizations to correspond to investors' needs (e.g. establishing a coordinating committee to support a policy dialogue with related organizations for provision of necessary infrastructure)

28.7.7 Profiles of Priority Projects for Investment Promotion of Togo

(1) Investment Promotion for Economic Sectors targeting Sub-Regional Markets

1) **Project Outline**

Private investment has been attracted mostly to the mining sector in Togo. However, not much attention has been paid to the growth potential of Togo's economic sectors targeting coastal markets in the sub-region.

By taking advantage of the possibility to integrate and expand the size of sub-regional consumers' markets, it is possible for the Agency for Investment Promotion and Free Zones (Agence de

Promotion des Investissements et des Zones Franches, API-ZF) to attract investment to economic sectors targeting sub-regional consumers' markets. Such target economic sectors include those of agriculture, fisheries and agro-processing.

The project aims to making a clear shift of investment promotion toward economic sectors orientated to sub-regional markets. For this purpose, the project will prepare new promotion materials, provide training to related agencies and personnel and implement actual activities for investment promotion.

2) **Funding Scheme**

ODA Technical Assistance

3) **Estimated Project Cost**

US$ 4 million

(2) Investment Promotion for Reactivating Bandjeli Iron Ore Mining and Railway Construction between Lomé and Kabou (410 km)

1) **Project Outline**

The WAGRIC Master Plan points out the importance of economic sectors targeting sub-regional markets for seeking balanced development between inland areas and coastal areas. However, at the same time, it is important for individual countries of the WAGRIC Sub-Region to expand the production of primary commodities, such as minerals and agricultural products.

Bandjeli has 800 million tons of iron ore deposits. Annual production of iron ore from Bandjeli Mine might be 100,000 tons per year. Currently the exploitation of iron ore has been stopped due to low metal prices. The government has considered removing some portion of the exploitation license from the current concessioner.

The project aims to attract private investment to revitalize the operation of Bandjeli Iron Mine and to facilitate a PPP scheme for constructing a railway between Lomé and Kabou and a railway between Kabou and Bandjeli Mine

2) **Funding Scheme**

PPP

3) **Estimated Project Cost**

US$ 1,214 million

Chapitre 29 Development Strategies for Infrastructure Sectors of Togo

29.1 Roads and Highways in Togo

29.1.1 Present Situation of Roads and Highways in Togo

(1) Institutional Framework of the Road Sector in Togo

The Ministry of Infrastructure and Transport (MIT) and Executing Agency of Urban Work (AGETUR) are responsible for road construction and maintenance in Togo. The Autonomous Financing Company for Road Maintenance (SAFER) is in charge of collection of toll fees and maintenance of roads. The Road Management Agency (AGEROUTE) is supposed to play a role as an executing agency for road management. However, it does not yet seem to be functional.

Togo Invest Corporation is a State Owned Company. Its mandate is to implement schemes of public-private partnerships for large-scale infrastructure projects, such as expansion of Lomé Port, construction of international airports and rehabilitation of railways. They are conducting feasibility studies and seeking finance for realization of the railway project between Lomé Port and the border of Burkina Faso.

(2) Framework of Road Planning and Road Development in Togo

The Road Sector Policy Statement of the Government of the Togo for the period 2011-2016 (October 2010) and the Priority Investment Programme for the Road Infrastructure Sector[1] (February 2011) provide the basis for the road sector projects in Togo.

In January 2015, the National Transportation Policy for the period 2014-2030 was formulated based on the Accelerated Growth Strategy and Promotion of Employment (SCAPE). In the Policy, the importance of the improvement and maintenance of the National Road No.1 between Lomé and Cinkassé as a national north-south corridor is emphasized. At the same time, the rehabilitation of east-west crossing roads including access bridges to neighbouring countries is emphasized to improve the access to major agricultural production areas.

(3) Existing Condition of the Road and Highway Network in Togo

The total length of roads was 11,900 km in Togo in 2014. The road network in Togo consists of national routes, urban roads and rural roads (See Table 29.1.1). Table 29.1.2 shows the improvement of road condition of the national routes between 2009 and 2014.

Road tolls and gasoline taxes of 35 FCFA per litre are collected to finance road management. However, the budget of 40% against the budget plan is still insufficient.

[1] This programme was prepared on the basis of the Road Sector Policy Statement by the Government of the Togolese Republic for the period 2011-2016.

Table 29.1.1 Road Length by Road Type in Togo, 2014

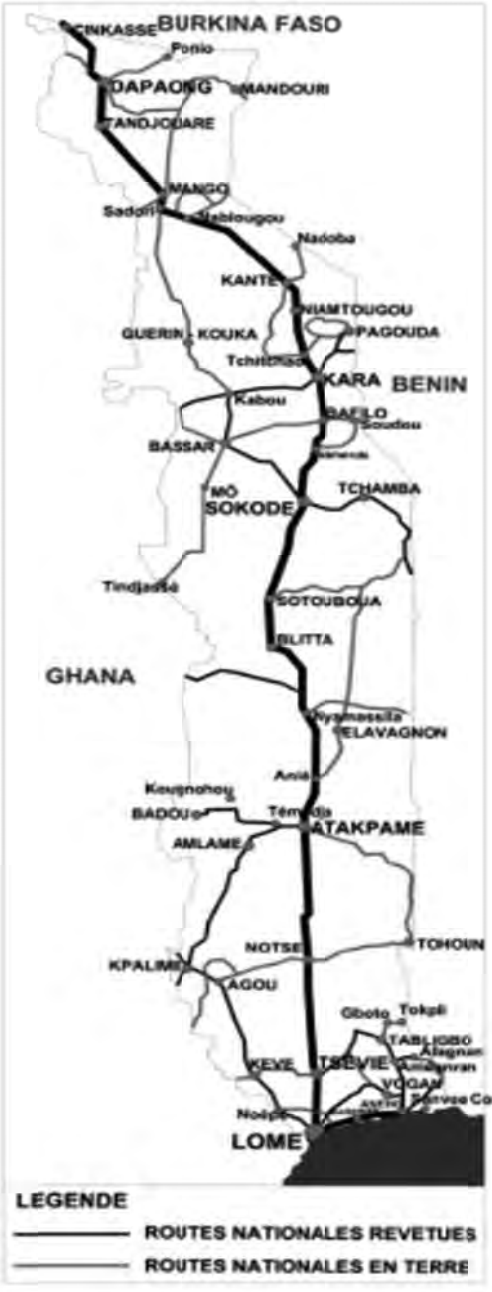
Road Type	Length	Proportion
National Route (Paved)	1,900 km	16%
National Route (Non-Paved)	1,700 km	14%
Urban Road	1,800 km	15%
Rural Road (Classified)	900 km	8%
Rural Road (Non-Classified)	5,600 km	47%
Total	11,900 km	100%

Source: MIT Togolese, 2015

Table 29.1.2 Proportion of Road Conditions, 2009 and 2014

	Good	Fair	Bad
2009	20%	30%	50%
2014	27%	33%	40%

Source: MIT Togolese, 2015



Source: MIT Togolese

Figure 29.1.1 National Road Network in Togo

(4) Corridor Development in Togo

The development and upgrading of the national routes No.1 and No.2 are promoted as main components of corridor development. At the same time, the government has the policy of development of four or five arterial crossroads that connect to Ghana and Benin.

Togo North-South Corridor: National Route No.1

The development of the South-North Corridor is the most important policy for the Togolese Government to provide a port and to improve the logistics for the nation. The feasibility study for the section between Lomé and Cinkassé was conducted by UEMOA in 2012, and the rehabilitation and construction of the road has progressed with the financial assistance from development partners including BAD.

The construction of new bypass road at Bafilo, which was the largest rough spot for large size trucks, was completed two year ago. However, road damage and potholes have already occurred due to construction defects.

The road widening from 2 lanes to 4 lanes (2 lanes each way) is ongoing on the section between Lomé-Tsévie. Regarding the section after Tsévie, MIT has an intention to widen the road to 4-lanes sequentially.

The bypass roads to control the through-traffic in urban areas are planned for the cities of Tsévie, Notsé, Atakpamé, Sokodé and Kara on the national route No.1. Some flyovers are also planned to improve the traffic flow on the roundabout interchanges in Lomé.

RN1 in Lomé

RN1 in Lomé

Source: JICA Study Team

Figure 29.1.2 Road Conditions of National Route No.1 in Lomé

RN1 in Lomé

Lomé-Tsévie


Tsévie-Atakpamé


Bafilo Bypass


Kara


Dapong

Source: JICA Study Team

Figure 29.1.3 Road Conditions of National Route No.1 in Togo

The National Shipper's Council of Togo (CNCT) has constructed truck parking lots on the national route No.1 for promoting the functional enhancement of the north-south corridor.

The CNCT installed three truck stations, one each at Atakpamé, Blitta and Bafilo and provide the parking spaces, lavatories, weigh-bridges, cafeterias or shops, repair shops and mosques.


Atakpamé Truck Station


Atakpamé Truck Station


Blitta Truck Station


Blitta Truck Station

Source: JICA Study Team

Figure 29.1.4 Truck Parking and Parking Lots on National Route No.1

Coastal East-West Corridor (National Route No.2)

The development of the East-West Corridor that runs through the coastal zone has been promoted as an essential part of the road network for the nation's logistics. Although the rehabilitation of the existing 2-lane roads, including the overpass road crossing the port area and the Outer Ring Road from Lomé Port to the National Route No.1 was already completed, the extension of the Outer Ring Road that connects to Noepé, which is on the border with Ghana, is planned. At the border at Noepé, a One Stop Border Post has been built with finance from the EU.

(5) Existing and Planned Projects

1) Togo North-South Corridor: National route No.1

Project for Road Widening

- Lomé-Tsévie-Atakpamé: Road widening to 4 lanes

Projects for Rehabilitation and Strengthening

- Atakpamé-Blitta : BAD
- Blitta-Auda : BEOAD
- Auda-Kande : BID and ECOWAS Bank
- Kande-Cinkassé: Government of Togo and BCEAO

2) Coastal East-West Corridor:National route No.2

Lomé Outer Ring Road Project

- The Outer Ring Road Project from National Route No.1 to Noepé OSBP (Border of Ghana)

East-West Crossing Road, which includes the following sections:

- Lomé-Vogan-Anfoin (61 km)
- Lomé-Kpalimé (61 km)
- Tsévié-Kévé-Zolo (44 km)
- Notsè-Agou-Kpalimé (54 km)
- Nyamassila-Bagou-Goubi, CU19 (180 km)
- Sokodé-Bassar (57 km)
- Katchamba-Sadori. (50 km)

3) Bypass Road and Improvement of Intersections in Major Cities

- Bypass road : Tsévie, Atakpamé, Sokodé, Kara (F/S of road widening)
- Improvement of intersections in Lomé: GTA, Bé, SIMTOGO

29.1.2 Issues on Roads and Highways in Togo

Issues on development and management for roads and highways in Togo are summarised as follows:

- Traffic around the Lomé Port and in the urban areas of Greater Lomé is increasing. The road network in Greater Lomé should be upgraded to meet the traffic demand.
- Through traffic in cities along the Togo's north-south corridor will disturb urban traffic and socio-economic activities in the cities.
- Conditions of the national road network are not so good in consequence of poor performance of road management organizations and insufficient funding, as well as weak enforcement of regulations against overloaded large-sized trucks.
- Resources allocated to road maintenance are insufficient. In fact, the budget executed by the MIT is around 60 % of the necessary quantity.
- A road management system based on a road data bank with updated and reliable data for

efficient and transparent planning of road management is lacking.

- A cement stabilized method has often been observed in Togo. In Bafilo Bypass, the subbase course and base course were constructed using the cement stabilized method, which was specified in the original design. This may have shortened the service life of this road. The cement stabilized base course cannot have sufficient friction with the Asphalt Concrete Pavement. And once the cement stabilized base course has cracks, the strength will be reduced to the strength of only the base material such as sand or soil.
- The pavement type for the shoulders of the existing major corridors is Surface Treatment (DBST or SBST: Double or Single Bitumen Surface Treatment). Most of the shoulders have deteriorated and partly disappeared and are obstructing passengers and bicycles to pass safely. Further, this deterioration sometimes causes edge damage to the carriage way.

29.1.3 Objectives for Development of Roads and Highways in Togo

The road network development in Togo should aim at building the basic road and highway framework for the country and improve the accessibility to the neighbouring countries. The Togo's north-south corridor consists of the national road No.1, No.2 and No.17 and it is the first priority policy for the development of Togo.

The road should also support activation not only of socio-economic exchanges within the country, but also of socio-economic exchanges within the sub-region by improving road condition and reducing the travel time and costs. For Togo, it is an important policy to collect a great deal of transit cargo from/to inland countries like Burkina Faso, Mali and Niger.

The overall goal of road development is to promote socio-economic exchanges and socio-economic development, to improve global competitiveness and to expand demand (both freight and passengers) for transportation using the Togo's north-south corridor.

The following objectives for road development are identified:

- Objective 1: To contribute to economic sector development and enhance socio-economic exchanges within the country and between countries by establishing networks of roads centring on the Greater Lomé and Togo logistics Corridor (Lomé- Cinkassé-Ouagadougou Corridor) , which is mainly national road No.1,
- Objective 2: To establish a road and motorway network for sub-regional and national integration by linking Abidjan - Accra - Lomé -- Cotonou - Lagos in the coastal belt zone and for enhancing the global gateway function of major cities and major ports in the coastal belt zone, thereby contributing to the acceleration of economic growth and improvement of the global competitiveness of Togo and Togo's north-south corridor,
- Objective 3: To realize the road network that facilitates personnel and economic exchanges between the regions in the east-west direction centred on the Togo's north-south corridor,
- Objective 4: To promote development of inland areas which are relatively underdevelopment by strengthening north-south connectivity and providing better accessibility to agricultural potential areas in inland areas
- Objective 5: To develop the road environment for realization of smooth and safe road transportation.

29.1.4 Development Strategies and Possible Measures for Development of Roads and Highways in Togo

Five strategies are identified for road development in Togo as shown below. Possible measures to implement each strategy are also described in this section.

- Strategy 1: Upgrading of the road capacity and the service level of road on Togo's north-south corridor by phased upgrading of the national road,
- Strategy 2: Enhancement of the hub function of Greater Lomé and Togo's north-south corridor,
- Strategy 3: Strengthening of east-west Roads by extending them from major urban centres on the Togo logistics corridor to potential developments,
- Strategy 4: Development of Coastal East-West Motorway for supporting the development of the Coastal Economic Corridor (part of Abidjan-Lomé-Cotonou-Lagos Corridor),
- Strategy 5: Organization of a sustainable road use environment.

(1) Strategy 1: Upgrading of the Road Capacity and the Service level of the Roads on Togo North-South Corridors by Phased Upgrading of the National Road

Considering Togo's north-south corridor, which is the national road No.1 and No.17, that is expected to serve as the development axis of Togo, the development of high-standard roads to upgrade the road capacity and the service level of the roads should be sought so that the transport corridor could realize high-speed transportation service.

The target corridors for Strategy 1 are as follows:

- Lomé - Sokodé - Kara - Border of Burkina Faso

Possible measures for Strategy 1 include the following:

- Road rehabilitation with asphalt concrete pavement that can sufficiently withstand the traffic of heavy vehicles,
- Road widening between Lomé and Sokodé depending on the traffic demand increase,
- Construction of bypass roads or ring roads in cities on the corridor: Tsevie, Sokodé, Kara and other cities on the corridor where the through traffic should be avoided,
- Reinforcement or replacement of aged bridges,
- Installation of truck stations, bus bays and truck bays along the road.

(2) Strategy 2: Enhancement of the Hub Function of Greater Lomé and Togo's North-South Corridor

In order to respond to increasing traffic demand and in order to provide smooth access to Lomé port and to the existing international airport, a network of arterial roads and ring roads should be developed in the Greater Lomé that will serve as the strategic node of the national road network in Togo to promote smooth traffic in the city and the expansion of urban areas. For the arterial road network formation, the connection to Lagos-Abidjan motorway should be considered. And the planning for an access road to the new airport in North-East area of Lomé should be started, which should be a motorway that connects to the city centre and to Lagos-Abidjan motorway.

The target corridors for Strategy 2 are as follows:

- Lomé metropolitan

Possible measures for Strategy 2 include the following:

- Development of radial arterial roads and ring roads in Greater Lomé,
- Improvement of bottleneck intersections,
- Development of access roads for linking major transport nodes: Lomé Port and the new airport and the Abidjan-Lagos corridor.

(3) Strategy 3: Strengthening of East-West Roads by Extending them from Major Urban Centres on Togo North-South Corridor to potential developments

Upgrading or improvement of roads to connect regional core cities, such as Tsevié, Atapamé, Sokodé, Kara and other cities on Togo's north-south corridor with surrounding areas, for providing basic urban services, should be done.

Connectivity from agricultural development areas to city areas as consumption markets and Lomé port for exportation should be upgraded. Pavement of roads and construction of bridges for connecting roads to villages and farms should be promoted to facilitate the access to major corridors.

The target corridors for Strategy 3 are as follows:

- The connecting road in the east-west direction from regional core cities; Tsevié, Notse, Atapamé, Sokodé, Kara, Dapaong,
- Agricultural potential development areas: Agropole in Oti, Kara and Mono,
- Mineral development areas, such as iron ore mines in the western part, and limestone and phosphate mines in the south part of the country,
- Tourism development areas

Possible measures for Strategy 3 include the following:

- Pavement of roads with asphalt concrete,
- Rehabilitation of roads,
- Reinforcement or replacement of aged bridges,
- Development of feeder roads (simple pavement, construction of bridges, application of Labour-. Based Technology).

(4) Strategy 4: Development of Coastal East-West Motorway for Supporting the Development of Coastal Economic Corridor (part of Abidjan-Lomé-Cotonou-Lagos Corridor)

Development of Abidjan - Lagos motorway forming the coastal economic growth belt should be initiated. This motorway development will be a key driver to create a logistics and economic hub in the Sub-region. Alignment of Abidjan - Lagos motorway where it passes through the Lomé metropolitan area must match the preceding development plan. Especially, the alignment and interchange should be selected at a location that promotes the manufacturing development.

The target corridors for Strategy 4 are as follows:

- Togo section of Abidjan - Lagos motorway

Possible measures for Strategy 4 include the following:

- Development of 6-lane motorway (Abidjan - Lagos motorway),
- Access road from motorway to city centre, to new airport and National Road No.2..

(5) Strategy 5: Organization of Sustainable Road Use Environment

Introduction of incidental road institutions to ensure efficient use and road traffic safety should be promoted. Especially, measures to implement smart traffic systems that contribute to the improvement of the functionality of road infrastructure should be promoted in the Metropolitan area.

Strengthening of the road administration function should be promoted.

Establishment or strengthening of organizations in charge of road traffic safety is important to ensure efficient and safe use of the roads. And also it is necessary to strengthen the road administration function for this aspect.

Target roads and areas, as well as administrative organizations for Strategy 5 are as follows:

- All roads, cities, and road administrative organizations

- Possible measures for Strategy 5 include the following:
- Implementation of road safety measures including enforcement of road safety rules
- Implementation of Traffic control systems, advanced traffic signal systems, and traffic information providing systems
- Strengthening of administrative functions concerning road planning, design, construction and maintenance
- Strengthening of maintenance capabilities (maintenance planning capabilities, equipment, budgeting)
- Establishment of overload monitoring systems for heavy vehicles and strengthening of enforcement of axle load control
- Training of trucking companies to improve safe transport capabilities and to ensure compliance with regulations
- Designation of road routes and time in which large trucks are allowed to use them
- Application of engineering design of road structures responding to the increase of truck weight
- Establishment of road management systems including a road inventory database

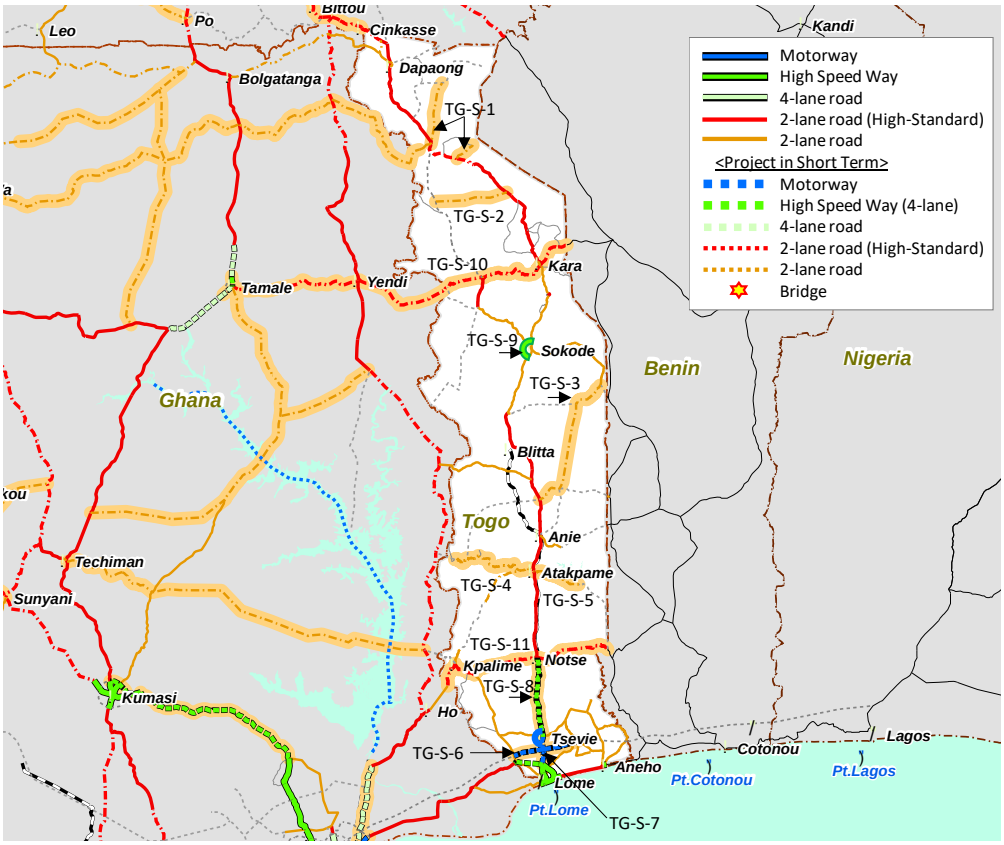
29.1.5 Programmes and Projects for Development for Roads and Highways

The road projects selected based on road development strategies are shown in Table 29.1.3, Figure 29.1.5, Figure 29.1.6 and Figure 29.1.7. These projects shown are essential road projects which should be tackled strategically for corridor development of WAGRIC-CACAO. However, there are also other road projects which should be promoted by the government of Togo for development of the country.

Table 29.1.3 Priority Project of Road Sector in Togo

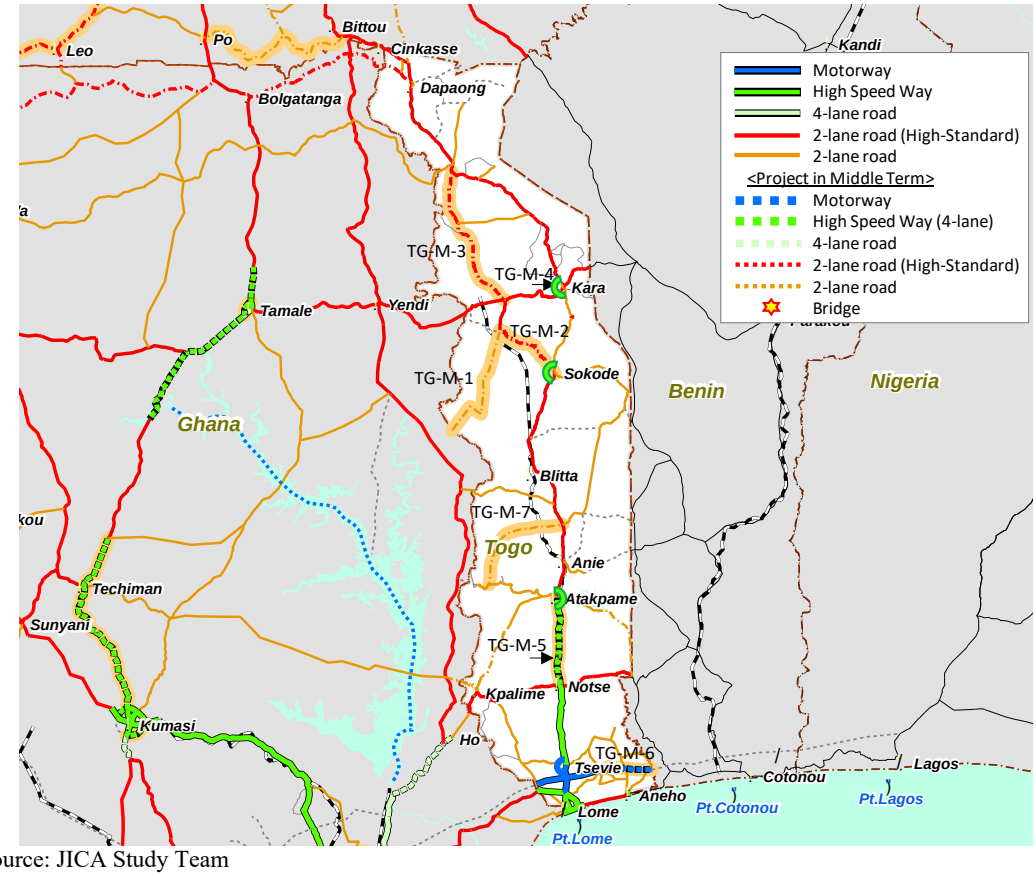
Name of Priority Project		No. Lane	Length		Project Schedule		
					Short	Middle	Long
Togo							
TG-S-1	Improvement of Road of Borgou and Mango and Road of Baouré and Road of Mogou and Gando-Namoni for Oti Agropole	2	50	km	■		
TG-S-2	Improvement of Road of Tchitcho – Leon – Guérin-Kouka for Kara Agropole	2	50	km	■		
TG-S-3	Improvement of Road between Kambole – Bila - Goubi - Bagou - Issati –Moretan - Nyamassila for Mono Agropole	2	50	km	■		
TG-S-4	Improvement of Road between Kougnonhou and Atakpamé for Agricultural Potential Areas for Mini-Agropoles of Amou and Agou in Plateau Region	2	95	km	■		
TG-S-5	Improvement of Road between Atakpamé and Nangbéto Dam	2	40	km	■		
TG-S-6	Project for Construction of Greater Lomé Sections of Abidjan-Lagos Motorway	6	30	km	■		
TG-S-7	Project for Construction of Motorway between Lomé Bypass and New International Airport (including Tsévié Bypass)	4	25	km	■		
TG-S-8	Construction of 4-Lane High-Speed Way between Tsévié and Notsé	4	60	km	■		
TG-S-9	Construction of Sokodé Bypass Road as part of 4-Lane High-Speed Way	4	10	km	■		
TG-S-10	Project for Upgrading of East-West Road Connecting Kara with Kétao at East Side National Border (toward to Parakou of Benin) and with West Side National Border (toward to Yendi and Tamale of Ghana)	2	80	km	■		
TG-S-11	Project for Upgrading of East-West Road Connecting Notsé with East Side National Border (toward Bohicon of Benin) and with West Side National Border (toward to Ho of Ghana)	2	140	km	■		
TG-S-12	Project for Reconstruction of Three Bridges of National Road No.1 for Strengthening of Lomé-Ouagadougou Corridor	2	-	km	■		
TG-M-1	Improvement of Road of Bassar – Mô – Tindjasse – the Western National Border with Ghana for Agricultural Potential Areas in Mô Valley of Central Region	2	110	km		■	
TG-M-2	Improvement of North-South Road between Sokodé and Bassar	2	60	km		■	
TG-M-3	Improvement of North-South Road between Kabou and Sansanné Mango	2	105	km		■	
TG-M-4	Construction of Kara Bypass Road as part of 4-Lane High-Speed Way	4	10	km		■	
TG-M-5	Construction of 4-Lane High-Speed Way from Notsé to Atakpamé including Atakpamé Bypass	4	65	km		■	
TG-M-6	Project for Construction of Togo's Central and Eastern Sections of Abidjan-Lagos Motorway	4	80	km		■	
TG-M-7	Improvement of Road between Kougnonhou and Nyamassila for Agricultural Potential Areas in Plateau Region	2	80	km		■	
TG-L-1	Project for Construction of 4-Lane High-Speed Way from Atakpamé to Kara	4	180	km			■

Source: JICA Study Team



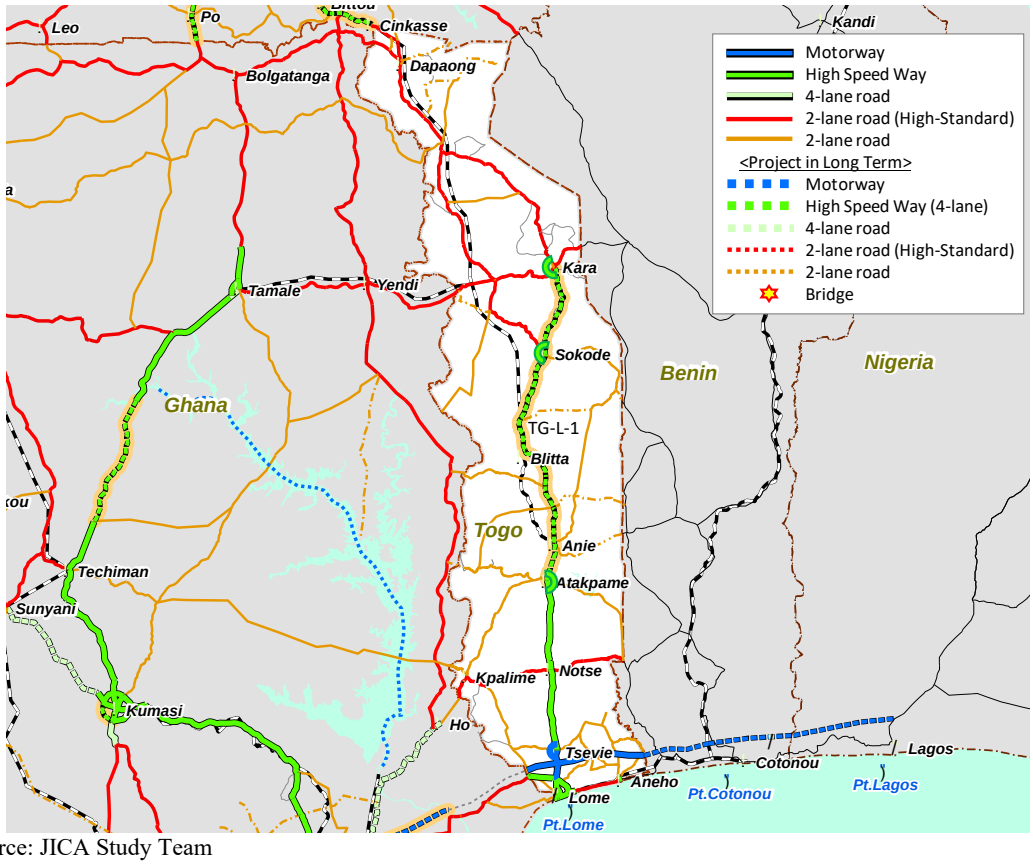
Source: JICA Study Team

Figure 29.1.5 Locations of Priority Road Project in Short Term in Togo



Source: JICA Study Team

Figure 29.1.6 Locations of Priority Road Project in Middle Term in Togo



Source: JICA Study Team

Figure 29.1.7 Locations of Priority Road Project in Long Term in Togo

29.1.6 Profiles of Priority Projects for Road and Highway Sector of Togo

(1) Projects for Improvement of Roads for Providing Better Access to Potential Agricultural Areas in Inland Areas (for Kara, Oti and Mono Agropoles)

1) Project Outline

The size of the coastal consumers' markets is increasing within Togo, and neighbouring coastal markets are expected to become integrated with Togo within the sub-region through the customs union. Because of this situation, Togo, as well as other WAGRIC countries, has the potential to develop economic sectors, both in coastal areas and inland areas, targeting these integrated and expanded coastal markets of the sub-region. Moreover, the roads of Lomé-Ouagadougou Corridor are relatively good and usable for promoting inland development, while the WAGRIC Master Plan strongly recommends the upgrading of the existing roads of Lomé-Ouagadougou Corridor to high-standard four-lane roads.

The WAGRIC Master Plan points out the possibility to attract investment to agriculture by providing improved access roads to potential agricultural areas, as well as by providing other infrastructure, such as irrigation schemes.

The projects aim to improve the following access roads to three agropoles (Oti, Kara and Mono agropoles), which are prioritized potential agricultural areas:

- Improvement of Road of Borgou and Mango and Road of Baouré and Road of Mogou and Gando-Namoni for Oti Agropole
- Improvement of Road of Tchitcho – Leon – Guérin-Kouka for Kara Agropole
- Improvement of Road between Kambole – Bila - Goubi - Bagou - Issati –Moretan - Nyamassila for Mono Agropole
- Improvement of Road between Kougnonhou and Atakpamé for Agricultural Potential Areas for Mini-Agropoles of Amou and Agou in Plateau Region

- Improvement of Road between Atakpamé and Nangbéto Dam
- Improvement of Road of Bassar – Mô – Tindjasse – the Western National Border with Ghana for Agricultural Potential Areas in Mô Valley of Central Region

These projects are in line with the national policy on agropole development of Togolese government.

2) Funding Scheme

ODA Grant

3) Estimated Project Cost

US$ 475 million

(2) Project for Construction of Greater Lomé Sections of Abidjan-Lagos Motorway

1) Project Outline

Togo's potential to develop economic sectors is limited in the case of targeting its own domestic consumers' markets. However, such potential would be enhanced greatly by targeting the sub-regional markets through integration with neighbouring countries' markets. This market integration will become possible by upgrading transportation along the coastal east-west corridor (Abidjan-Lagos Corridor), as well as strengthening of implementation of the customs union.

The upgrading of transportation along Abidjan-Lagos Corridor would become possible by construction of strategically selected sections of the Abidjan-Lagos Motorway. The WAGRIC Master Plan strongly recommends locating the route of the Abidjan-Lagos Motorway Sections of Togo closer to the urbanization areas of Greater Lomé as much as possible.

The most important section of the Abidjan-Lagos Motorway for Togo is the motorway sections between the national border of Noepe and northern part of Greater Lomé.

The project aims to construct the sections (30km) of Greater Lomé of the Abidjan-Lagos Motorway for the following purposes:

- To connect the central area of Greater Lomé with Noepe, (national border with Ghana) on the Abidjan-Lagos Corridor
- To connect the central area of Greater Lomé with Togo's eastern part of the coastal area on the Abidjan-Lagos Corridor

2) Funding Scheme

ODA Loan

3) Estimated Project Cost

US$ 294 million

(3) Project for Construction of Motorway between Lomé Bypass and New International Airport (including Tsévié Bypass)

1) Project Outline

The WAGRIC Master Plan recommends establishing high-speed transportation in the north-south corridor for strengthening the connectivity between inland areas and coastal areas. The north-south high-speed transportation is important for attracting investment to economic sectors targeting sub-regional markets, while the establishment of efficient and low-cost cargo transportation in the north-south corridor is required for establishing an enabling environment for competitive business operation.

The government of Togo started upgrading the national road to a high-standard four-lane road from Lomé toward Atakpamé, including providing by-pass roads. In response to the prospective increase

of road traffic on the Lomé-Ouagadougou Corridor, as well as within the Greater Lomé, it will be necessary to construct a motorway from Lomé to Tsévié for the following two purposes:

- To create another exit road from Greater Lomé to the north
- To provide high-speed transportation from the central area of Lomé to the new International Airport, which is planned near Tsévié for the future

This kind of high-speed transportation is necessary to attract investment for the economic sectors in inland areas, especially those targeting coastal markets. In addition to reduction of travel time, the extension of a high-standard road could reduce vehicle costs.

2) Funding Scheme

ODA Loan or PPP

3) Estimated Project Cost

US$ 153 million

(4) Construction of Sokodé Bypass Road as part of 4-Lane High-Standard Road (10km)

1) Project Outline

The WAGRIC Master Plan recommends establishing high-speed transportation in the north-south corridor for strengthening the connectivity between inland areas and coastal areas. The north-south high-speed transportation is important for attracting investment to economic sectors targeting sub-regional markets, while the establishment of efficient and low-cost cargo transportation in the north-south corridor is required for establishing an enabling environment for competitive business operation.

The government of Togo started upgrading the national road to a high-standard four-lane road from Lomé toward Atakpamé, including providing by-pass roads.

In response to the prospective increase of road traffic on the Lomé-Ouagadougou Corridor, as well as within Sokodé, it will be necessary to extend the four-lane high-standard road on the Lomé-Ouagadougou Corridor for shortening the travel time between inland areas and coastal areas. This kind of high-speed transportation is necessary to attract investment in the agriculture and agro-processing sectors in inland areas, especially those targeting coastal markets.

The population of Sokodé was 119,000 in 2015. It is forecast to be 343,000 by 2040. Together with Kara, Sokodé is expected to play an important role as a major regional city and economic centre accommodating agro-processing industries and commercial/service functions.

The project aims to construct a 4-lane high-standard bypass road (about 10km) for Sokodé. Along the Sokodé Bypass Road to be constructed by this project, land development is possible for industrial and logistics land use.

2) Funding Scheme

ODA Grant

3) Estimated Project Cost

US$ 53 million

29.2 Railways of Togo

29.2.1 Present Situation of Railways in Togo

(1) General Situation of Railway in Togo

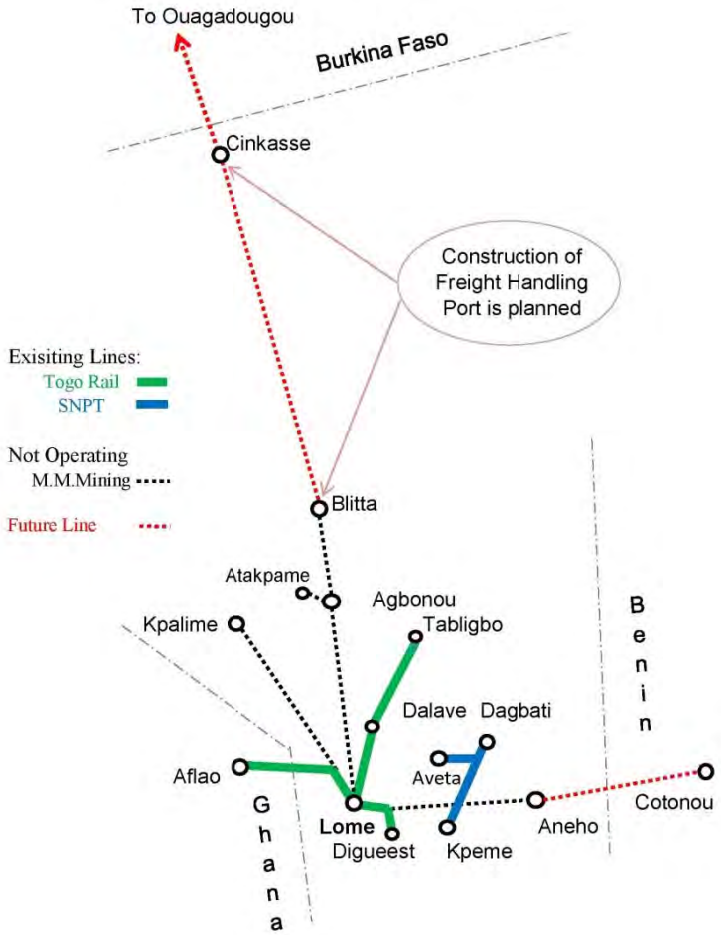
The total route length of all the railway lines in Togo is 559km. However, out of the total 559km, 442km (=the total of the three closed lines) is not operating. The railway has a single track and is not electrified. Its gauge is 1,000mm.

The history of the railway in Togo began when Togo Railway (CFT: *Chemins de Fer du Togo*) was started by Germany in 1905. Currently, there are two companies operating railway transport in Togo, which are Togo Rail S.A. and Société National Phosphate Togo (SNPT).

Table 29.2.1 Togo Railway Network (2015)

Existing Line	Length	Built	Rail (kg/m)	Operates by	Closed
Lome~Blitta	276 km	1911~1933	20 + 26	M.M.Mining	2012
Lome~Kpalime	119 km	1907	20	M.M.Mining	1996
Lome~Aneho	47 km	1905	20	M.M.Mining	1986
Lome~Tabligbo	77 km	1978	36	Togo Rail	
Lome~(Tokoin)~Aflao	4 km	2014	36	Togo Rail	Rehabili+New line
Kpeme~Dagbati	30 km	2007	23 ~ 26	SNPT	
Kpeme~Aveta (Branch line)	6 km	2007	23 ~ 26	SNPT	
Total =	559 km	* All lines are non-electrification single track, gauge 1,000mm			

Source: JICA Study Team



Source: JICA Study Team

Figure 29.2.1 Railway Routes and Terminal Stations in Togo

Togo Rail S.A. operates the railway cargo transport since 2002.

On the other hand, SNPT was created in 2007 as a state company after the dissolution of the Togo Phosphates Office (OTP: *Office Togolais des Phosphates*) and International Fertilizers Group-Togo (IFG-TG). The mission of SNPT is extraction, processing and marketing of phosphate in Togo.

At present, Togo Rail S.A is operating under the supervision of the Ministry of Infrastructure and Transportation, and SNPC is operating under the supervision of the Ministry of Mining and Energy.

The volume of transport by Togo Rail is shown in Table 29.2.2.

Table 29.2.2 Volume of Transport of Togo Rail (ton)

	2011	2012	2013	2014
Clinker	111,562	263,676	319,914	359,983
Coal	0	0	0	30500
Limestone	0	719	14,091	131,556
Total	111,562	264,395	334,005	522,039

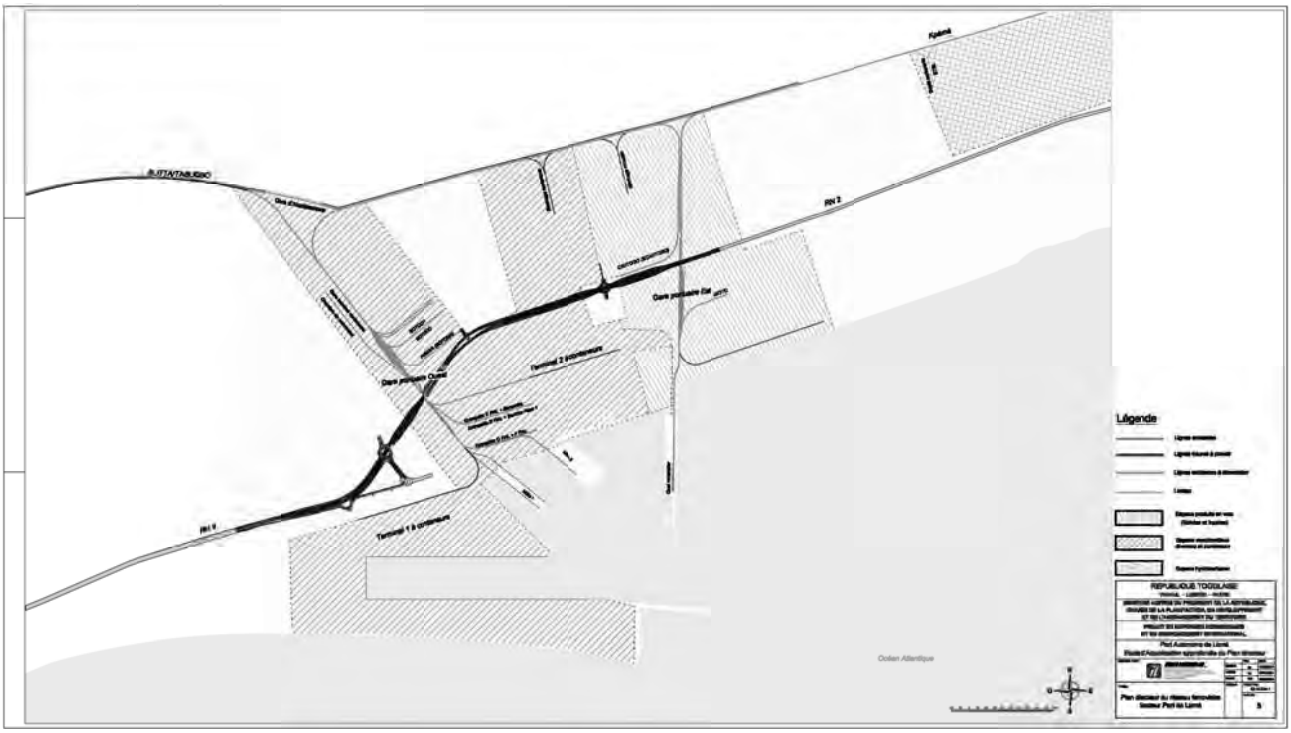
Source: Togo Rail

(2) Connection between Port and Railways

Current situations of the connection between Lomé Port and the railways is only the Lomé Port - Aflao Line (23km), operated by Togo Rail S.A for transportation of clinker from Digueest (Lomé Port) to Aflao (in Ghana). Figure 29.2.2 shows Lomé Port Railway Plan which was prepared by the Port Authority in 2011.

According to Lomé Port Master Plan, the railway track in Lomé Port will be rehabilitated including the construction of a container yard for transportation of containers to Blitta Dry Port.

As the Ministry of Infrastructure and Transport has decided to change the gauge of the railway from meter gauge to standard gauge, all tracks inside the port will have to be renewed as well.



Source: Lomé port Master Plan Final Report 2011

Figure 29.2.2 Railway Plan for Lomé Port

29.2.2 Issues on Railways of Togo

The following issues are identified on railways in Togo:

- The exiting railway line between Lomé - Blitta and Lomé - Aneho are not operational due to insufficient track maintenance.
- There is no railway system for long distance transport in the north-south direction and the long distance transport is fully relying on truck transport
- Although Lomé Port has the potential to expand its catchment area to the major cities in the neighbouring countries such as Accra and Cotonou, there is no railway system between Aneho - Cotonou (104km) to connect the port to the boarders of these countries.

29.2.3 Objectives for Railways in Togo

The objectives for development of railways in Togo are set as follows:

- To upgrade the north-south corridor into an economic corridor with integrated infrastructure network by establishing a railway to Cinkassé to promote economic development along the corridor
- To expand the catchment area of Lomé Port by connecting Aneho and Cotonou by railway

29.2.4 Strategies for Railways of Togo

The following are the strategies for railway development in Togo:

- To implement phased development of the railway lines to connect Lomé and Cinkassé by utilizing the existing alignment and mining potential
  - 1st Phase: Lomé-Blitta
  - 2nd Phase: Blitta- Kabou
  - 3rd Phase: Kabou - Cinkassé
- To promote multi-modal transport by developing multi-modal dry ports at the following stations:
  - Blitta
  - Kabou
  - Cinkassé
- To establish railway transportation along the coastal corridor by connecting with the railways of Benin and Ghana considering both passenger transport and freight transport for the east-west coastal railway development

29.2.5 Programmes and Projects for Railways Development in Togo

The following projects for railway development are formulated for Togo:

(1) Short-Term Projects

- Project for Construction of Railway from Lomé to Blitta

(2) Mid-Term Projects

- Project for Construction and Operation of Railway from Blitta to Kabou

(3) Long-Term Projects

- Project for Construction and Operation of Railway from Kabou to Cinkasé of Burkina Faso
- Project for Construction of Railway from Lomé to boarder of Benin

29.2.6 Priority Projects for Railway Development in Togo

The projects below were selected as priority projects for railways development in Togo.

- Project for Construction of Railway from Lomé to Blitta
- Project for Construction and Operation of Railway from Blitta to Kabou
- Project for Construction and Operation of Railway from Kabou to Cinkasé of Burkina Faso

29.3 Sea Ports of Togo

29.3.1 Present Situation of Lomé Port

Lomé Port has a large surface area of 900 ha and functions not only as an international trade hub but also as a base for trade and manufacturing, thanks to the large industrial free zone where dozens of businesses have set up operations. Therefore the importance of Lomé Port is very high not only from the point of view for efficient logistics on the corridors, but also from the point of view of industrial development in Togo.

The container terminal at Lomé Port is 16.6m deep, making it the only deep-water port on the West African coast where ships with considerable draught can call.

The port is run by Lomé Port Authority (PAL: *Port Autonome de Lomé*) established on 26 April 1968 which is a state-owned company that oversees activities at the port and performs loading and offloading of wheat, hydrocarbons and minerals.

The total container handling capacity has increased to 2.2 million TEU per annum making Lomé Port into an incomparable hub port in the West Africa region.

The handling volume in 2016 including transhipment cargo was 14 million ton which increased by 50% since 2014 when the new container terminal started its operation. While around 70% of the total cargo was import cargo and only 18% transhipment cargo in 2014, the share of transhipment cargo increased to almost 56% in 2016. In TEU units, in total, 822 thousand TEU of containers were handled in 2016.

When comparing the import cargo volume amongst different commodities, the largest volume commodity is clinker which accounts for 28% of the total volume. The following commodity is food products which accounts for 17%. On the other hand, in export cargo, 27% of the total export volume is agricultural products.

Table 29.3.1 Total Container Throughput of Lomé Port (2011 – 2016)

Unit: TEU (ton)

Category	2011	2012	2013	2014	2015	2016
Import			119,015	128,417		
			(1,903,473)	(2,104,233)		
Import Togo	175,109	143,489	*66,754*	*67,682*	123,880	118,756
Transit Import	(2,089,406)	(2,265,532)	(2,700,748)	(2,299,204)	*52,261*	*60,735*
Export			115,844	119,435		
			(746,791)	(853,426)		
Export Togo	177,586	144,992	*105,475*	*109,954*	128,835	119,4317
Transit Export	(1,393,258)	(1,504,376)	(1,617,229)	(972,867)	*10,369*	*9,481*
Transhipment			76,611	132,946		
			(1,157,145)	(1,699,777)		
Import TEU			*37,606*	*69,510*	652,985	583,466
Export TEU			*39,005*	*63,436*	*39,005*	*63,436*
Total	352,695	288,481	311,470	380,798	905,700	821,639
	(3,482,664)	(4,125,043)	(4,317,977)	(3,272,071)	(3,807,409)	(4,657,436)

Source: Port Autonome de Lomé

The access road to the port area was drastically improved during the last few years. The frontage road of the port area in the east-west direction was elevated, and the outer ring road was upgraded to a four-lane road which can directly access N1 as the international corridor to Burkina Faso.

Regarding the railway, Togo Rail has an extension of its network into the port. Quays and sheds are connected.

Recently, two container terminals were opened. These modernized facilities contribute to the increase of throughput cargos. Lomé Port should take full advantage of these modernized port facilities to attract more transit cargos and transhipment cargos. Moreover, it is considered that the land that is currently being used inefficiently should be used for industrial development. Repurposing of land use is one of the urgent challenges for further development of Lomé Port and its surrounding areas.

29.3.2 Issues on Lomé Port

The following issues in Lomé Port are observed:

- Poor and inefficient land use within the port area and its surrounding area (PAL's domain) for industrial development
- Insufficient capacity of the existing container terminal, grain terminal and mineral terminal for the increasing demand and facilities such as car park for trucks and container depot for more efficient services as the regional hub port Traffic congestion within the port area and its surrounding area, mainly on the roads in front of the port entrance

29.3.3 Objectives for Development of Lomé Port

The following objectives are set for the development of Lomé Port:

- To develop Lomé Port not only for the contribution to the development of Greater Lomé as an international gateway to the international corridors but also for the development of inland areas of Togo and inland countries
- import and export a reasonable amount of goods at more competitive charges for cargo handling by reducing transportation cost and timeTo increase the catchment area of Lomé Port by increasing the competitiveness of Lomé Port
- To increase revenues not only from handling domestic cargo, but also from collecting more cargos in transit from / to Burkina Faso, Mali and Niger countries and coastal neighbouring countries, and transhipment cargo by expanding service areas
- To upgrade port performance by making maximum use of existing facilities and equipment

29.3.4 Strategies for Development of Lomé Port

The following strategies are formulated for development of Lomé Port:

- To promote the expansion of the container terminal by ICT and creation of an additional ore terminal in the PAL area, as well as improving interfaces between berths and railway lines for smooth access to the North-South Corridor and Coastal Corridor.
- To promote the development of logistics parks by using the SAZOF system (Free zone system) to attract related industries and to promote better integration of port areas with the strategic industrial areas. Land for this porpoise could be created by relocating existing functions of PAL's land to other areas.

Regarding the value-added services, the following services should be considered for increasing the customer service and for increasing the port competitiveness.

Table 29.3.2 Value-added Services for Increasing Customer Service and Port Competitiveness

Value-added Logistics Services	Loading/unloading, Stripping/stuffing, Bulk storage, Tank storage, General warehousing, Air conditioned warehousing, Distribution centres
Logistics chain Integration Services	Quality control, Repacking, Customizing, Assembly, Testing, Repair, Re-use
Value-added Facilities	Parking facilities, weighbridges, customs facilities, truck maintenance and repair facilities, container repair and maintenance, cleaning facilities, tanking facilities, trailer renting and leasing, Information and communication, safety and security services, offices, hotels, restaurants, shops

Source: JICA Study Team

29.3.5 Programmes and Projects for Development of Lomé Port

The projects for port development are listed below:

(1) Short-Term Projects

- Promotion of Land Use Restructuring of Terminal and Waterfront Areas surrounding Lomé Port for Effective Port Operation and for Attracting Enterprises of the Logistics Industry and Processing Industry
- Mainly the creation of new access roads to the new container terminal to expand the service area of Lomé Promotion of Reduction of Port Charge at Lomé Port
- Extension of the ore terminal

(2) Mid-Term and Long-Term Projects

- Construction of dry port and rail connection from/to Sahel countries
- Extension of mineral berth

29.3.6 Priority Projects for Development of Lomé Port

The following projects are selected as priority projects for the development of Lomé Port:

- Promotion of Land Use Restructuring of Terminal and Waterfront Areas surrounding Lomé Port for Effective Port Operation and for Attracting Enterprises of the Logistics Industry and Processing Industry
- Promotion of Reduction of Port Charge at Lomé Port

29.4 Logistics Infrastructure of Togo

29.4.1 Present Situation of Logistics Infrastructure in Togo

(1) Present Situation

The country is the leader in transit cargoes to the land-locked countries (LLC) in terms of volume of freight handled. In 2014, of the 4.3 Million Ton freight to LLC, 44.0% passed through the Lomé Port. This is closely followed by the Abidjan Port which captured 42.6% and the remaining share is taken by the Tema Port. The above figures highlighted the fierce competition among the countries in attracting transit cargoes and the notable small difference that separate Lomé Port and Abidjan Port. For Lomé to maintain the lead and even pull away from its rivals, it has to continue its innovation both in infrastructure supply and operation as well addressing the remaining issues that hold back the country's potential to become a true logistics hub in the sub-region.

A good start to understanding the condition of Logistics Infrastructure in the country is by revisiting the 2013 JICA-assisted study entitled "Study on Togo Logistics Corridor Development" (TLC). The TLC succinctly explained the challenges that confront the industry:

"The major issues of transit transport on the TLC are: 1) the low level of maintenance at Lomé Port and deteriorated condition of N1, 2) aged freight vehicles, many broken-down, overloaded and oversized vehicles, and 3) complicated and inefficient customs clearance processes, inappropriate and inexperienced customs brokerages, customs clearance document forms and data that are not interchangeable between Togo and Burkina Faso, and requests to pay bribes at the port, border and checkpoints. Therefore, the transit cargo transport systems in Togo and Burkina Faso are still not efficient and must be improved to the standard of international logistics."

Although some of the issues above have been addressed or partly addressed such as upgrading of Lomé Port, notable improvement of road surface condition of N1 and reduction of the number of checkpoints, there are still some works left to further elevate the position of the country in relation with transit cargoes. These undertakings should include efforts to professionalize the industry (including fleet renewal scheme), further simplification of customs inspection inside Lomé Port as noted by the 2014 JICA-assisted study (Study on Customs Procedures and Operations of the Lomé-Ouagadougou Corridor), traffic congestion inside Lomé city and other major cities along the North-South corridor, resolve the issues of a transit guarantee fund with Burkina Faso (single payment on departure instead of the current twice which cause substantial delay to the freight traffic), formal operation of Cinkanse OSBP among others. All of the above cited inefficiencies in the logistics chain contribute in a very high transportation cost that characterizes the corridor.

(2) Legal Framework

There have been several legal instruments enacted to govern trade between and among the ECOWAS and UEMOA countries. The major legal instruments are as follows:

1) Transit Traffic and Interstate Transport

- 1982 ECOWAS Convention A/P.4/5/82 (Inter-State Road Transit of Goods - ISRT): This protocol calls for a single carnet (guarantee) system involving payment (single payment on departure) and sharing of guarantee fees among the sureties (guarantor) of the countries of transit. This means that a guarantee fee of 0.5% will be paid at the port (assuming imported goods) and a mechanism to split the fee between the coastal country (entry point) and the land-locked country (final destination point) will be established. Currently, only Côte d'Ivoire and Mali have made such agreement to implement a single guarantee system in the sub-region.
- Axle Load Control: UEMOA Règlement N°14/2005/CM/UEMOA Relatif à l'Harmonisation des Normes et des Procédures du Contrôle du Gabarit, du Poids, et de La Charge A l'Essieu Des Véhicules Lourds de Transport de Marchandises dans les États Membres de l'UEMOA. This regulation basically confirms the original axle load limit established by the 1982 ECOWAS IST Convention on Inter-State Road Transport which sets a limit of 11.5 tons per axle. For instance, maximum weight of cargoes to be loaded on a 6-axle truck is only 51 ton. Of the four governments, only the Togolese government is currently compelling truckers to observe the regulation.
- Cargo Quota System or Freight Sharing: The ECOWAS Inter-State Road Transportation Convention (No. A/P2/82) allows pairs of member states to conclude bilateral treaties that set quotas in terms of specific percentages of the freight passing through a coastal country's port en route to a landlocked country to the truckers of each of the two countries. Several such bilateral treaties exist, usually dividing imported goods into "strategic" goods and nonstrategic goods. Strategic goods are 100 percent allocated to the landlocked country and nonstrategic goods are allocated 2/3 to the landlocked country and 1/3 to the coastal country. (Impact of Road Transport Industry Liberalization in West Africa, USAID, 2012)

2) Trade Facilitation

- ECOWAS Decision A/DEC/13/01/03. This relates to establishing a Sub-regional Road

Transport and Transit Facilitation Programme in Support of Intra-Community Trade and Cross-Border Movements.

- Joint Border Posts: Supplementary Act /Sa.1/07/13. This relates to the Establishment and Implementation of the Joint Border Posts Concept within Member States of ECOWAS, it establishes, among other things, the legal framework of Joint Border Posts.
- Décision N°15/2005/CM/UEMOA Portant Modalités Pratiques d'Application du Plan Régional de Contrôle sur les Axes Routiers Inter-Etats de l'UEMOA. This decision spells out clearly that there should be no controls at all of transit traffic along inter-state roads and that all controls must be limited to the point of departure, border crossings and the point of arrival.
- Décision N° 39/2009/CM/UEMOA Portant Création et Gestion des Corridors de l'Union – creation of Corridor Management Committees.

3) Trade Policy

- ECOWAS Trade Liberalization Scheme (ETLS) and its various instruments - ECOWAS operational tool for promoting the West Africa sub-region as a Free Trade Area.
- ECOWAS Common External Tariff - this is one of the instruments for harmonizing ECOWAS Member States and strengthening its Common Market.

(3) Existing Development Plan for Logistics Infrastructure

The 2013-2017 national development plan of the country entitled "Strategy on Accelerated Growth and Employment Promotion (SCAPE)" gave prominence to the importance of logistics infrastructure in the total development of the country. The Plan intends to utilize the country's strategic advantage vis-à-vis land-locked countries (shortest corridor) as well as its infrastructure advantage being the only country in the sub-region with a deep-sea port (draft of 16.6 meter). Ingrained in this plan is the initiative to build the North-South corridor as a dynamic economic corridor which would play a key role in bridging the wealth gaps among the sub-regions. This initiative would accelerate growth, create jobs, increase people's income, and promote rural development. The SCAPE objectives for this initiative are as follows:

- Rehabilitation, in partnership with the private sector, the main corridor including road and rail which link Togo to its neighbouring countries;
- Optimize investment in the corridor by taking advantage of new opportunities created by the rehabilitation of infrastructure;
- Optimize social development opportunities while encouraging the participation of traditionally disadvantaged communities;
- Reduce sub-regional disparities and promote rural development.

The above initiatives require massive investment, thus, aside from tapping the public and private fund, the plan recognized the importance of attracting foreign direct investment.

29.4.2 Issues on Logistics Infrastructure in Togo

The critical issues that need to be addressed by the Togo side to push forward the industry are presented in the table below.

Table 29.4.1 Major Issues affecting the Logistics Infrastructure in Togo

Grouped Issues	Details
a. Weak (or lack) compliance on the laws and regulations enacted by regional bodies	Level of compliance on the different enacted major laws by the regional bodies (ECOWAS and UEMOA) is as follows: • 2005 Number of control points along the corridor by UEMOA–all controls must be limited to the point of departure, border crossings and the point of arrival. Compliance on this directive is very weak as evident by the multiple check points on all the three (3) corridors. • 2005 Axle load control by UEMOA – for compliance on this important measures to protect the road asset, the Togolese government had shown a strong resolved. Of the four governments, only the Togolese government is currently compelling truckers to observe the regulation. • ECOWAS protocol on Inter-State Road Transit of Goods (ISTG) – the envisioned single guarantee fee of 0.5% to be paid at the port (assuming imported goods) and a mechanism to split the fee between the coastal country (entry point) and the land-locked country (final destination point) will be established is still not completely realized. Currently, only Côte d'Ivoire and Burkina Faso have agreed to implement a single guarantee system. At Lomé Port, the two (2) chambers of commerce (guarantors) of Togo and Burkina Faso have signed an MOU in late 2015 to allow the two (2) customs bounds fees to be charged once at Lomé port however this has not been implemented yet. No progress is reported at the Tema/Accra-Ouagadougou corridor.
b. Operational-related issues	• Traffic circulation inside the port is poor which affects the flow of cargoes. This is due to several factors such as poor pavement condition of the road, presence of activities not related to port functions (e.g. market and church inside Lomé Port) • Lengthy cargo processing time which contributes to port congestion. The reasons include preference of carriers for bulk cargo (devanning) over containerized cargo thus increasing the dwell time, customs conducts its inspection / intervention twice (by the compliance officer and by the brigade) inside the port which create unnecessary delay. These two activities should be unified to reduce cargo dwell time. • Strong presence of road blocks (road harassment) for bribery. It was reduced to 13 in the past but it now stands at 29 according to verification mission done by Borderless in November 2015. • Prevalence of overloaded trucks • Inefficient transit system which results in the immobilization of trucks. At Cinkasse OSBP, it can be very congested and the long delay may result in a waiting time at the border of 1 or 2 days while the usual time is estimated to be an average of 6 hours • Likewise, the amount of fee charged by clearing agents to process documents at Cinkasse JBP (USD 164 Togo side + USD 25 informal fee; USD 68 Burkina Faso side) represent about 7% of the total cost. This is the highest border crossing cost among the three corridors. • At Lomé Port, the two chambers of commerce (guarantors) of Togo and Burkina Faso signed an MOU in late 2015 to allow the two customs bound fees to be charged once a Lomé port however this has not been implemented yet.
c. Infrastructure-related issues	• Lack of dry port as support-extension of Lomé Port • Almost complete shutdown of railway operation which could be useful even for just domestic freight particularly mining • Some rest areas are not patronized by truck drivers due to the issue of suitability of locations. • Poor road condition of some sections of the corridors • Old vehicles are used to transport cargoes and are thus susceptible to frequent breakdowns and accidents • Lack of OSBP resulting in complicated and inefficient transit procedures (between Togo and Benin)
d. Institutional-related issues	• Cargo sharing agreement between land-locked countries and coastal countries (Freight Sharing) • First-come, first-served system practiced by the truck unions (Queuing System) • Inadequate enforcement of axle load control resulting in road damage and accidents • Lack of single guarantee fund (Regional Guarantee system). MOU between Togo and Burkina Faso was signed in late 2015 but is still not in operation. • Lack of regional insurance/guarantee scheme for containers • Insufficient effort by concerned authorities to end road harassment

Source: JICA Study Team

29.4.3 Objectives for Development of Logistics Infrastructure in Togo

(1) Overall Objective

The overall goal for the logistics sector in this study is the reduction of transport and transaction cost through establishment of an efficient multi-modal logistics system in the region. This bold target

naturally calls for upgrading the logistics infrastructure (terminals and links), modernization of logistics operation (mechanization of the remaining activities that are now being done manually), promotion of logistics human resources (that would contribute to professionalization of the industry) and gradual abolition of the outdated systems governing the industry.

(2) Specific Objectives

The specific objectives for Logistics Infrastructure in Togo are as follows:

- To provide high quality logistics infrastructure to contribute in addressing regional disparity within the country and strengthen economic relation with neighbouring countries;
- To establish a multi-modal logistics system to capitalize on the strength of each mode (all modes work together to satisfy customers demand) thereby contributing in the reduction of transport cost;
- To modernize logistics operation through increasing use of ICT to take advantage of the available modern technologies
- To promote professionalization of Logistics Infrastructure in the country.

29.4.4 Strategies for Logistics Infrastructure of Togo

The strategies are designed to achieve the four objectives enumerated above. The strategies are divided into five categories which touch infrastructure, logistics operation, and human resources development.

- Strengthening of logistics links (road and rail) and nodes (logistics platform) to facilitate smooth flow of domestic and transit cargoes
- Integration of logistics infrastructure for seamless transfer of cargoes from one mode to another
- Provision of cross-border facilities, utilization of modern ITS and data standardization for seamless flow of trade data
- Promotion of containerization to support intermodal logistics operation
- Promotion of human resources development for Logistics Infrastructure (to contribute to professionalization of the industry)

29.4.5 Infrastructure Programmes and Projects for Logistics Infrastructure in Togo

The list of projects is presented the table below.

Table 29.4.2 Proposed Projects on Logistics Infrastructure in Togo

Project Name	Project Type	Expected Responsible Organization	Term	
			Short-Mid 2025	Long 2040
Modernization of Sahel Truck Terminal (conversion into Urban Distribution Centre)	Logistics terminal	Ministry of Infrastructure and Transport	x	
Adetikopé Truck Terminal	Logistics terminal	Ministry of Infrastructure and Transport	x	
*Lomé-Blitta Railway Line	Railway	Togo Rail		x
Blitta Dry Port	Logistics terminal	Ministry of Infrastructure and Transport	x	
*Blitta-Cinkasse Railway Line	Railway	Togo Rail		x
Cinkasse Dry Port	Logistics terminal	Ministry of Infrastructure and Transport		x

Note: *Discussed in Railway section (Chapter 30)
Source: JICA Study Team

29.4.6 Programmes and Projects for Professionalizing Logistics Services and Trade Facilitation in Togo

Equally important are the non-infrastructure projects that would complement the infrastructure-based projects. These measures would address concerns on existing outdated systems that currently govern how cargoes are transported.

Table 29.4.3 Programmes and Projects for Professionalizing Logistics Services and Trade Facilitation in Togo

Project Name	Explanation
a. Institutional Strengthening and Capacity Building Support for Freight Transport Stakeholders in both the Public and Private Sectors	This project aims to strengthen the capacity of the Government and of professional associations in the transport, transit and trade sectors to effectively provide efficient support and services to private operators operating primarily on the three corridors. This will also support activities that promote the professionalization of the road transport industry, as well as accompanying measures for the transport and logistics operators. It should be noted that the same project is about to commence in Côte d'Ivoire with the support of the World Bank. The project may include the following: a. Strengthening the institutional capacity of the ministries involved in logistics operation and other related agencies. b. Support to transport operators by (i) building capacity for professional transport sector associations through the development of public and private training capacity for the transport and logistics profession, (ii) supporting informal transport operators which cannot comply with possible new regulatory requirements to convert them to other transport related activities or retrain them. c. Support to joint initiatives and formalization of public-private dialogue to facilitate trade on the corridor by (i) supporting communication campaigns on transport and trade reforms to build broad ownership and support, (ii) supporting regional dialogue among the countries on transport and transit facilitation issues on the corridors and (iii) supporting monitoring of transport conditions on the three corridors through a road users' survey, logistics costs measurements, and studies of pricing in the trucking industry.
b. Development of Fleet (Truck) Renewal Scheme	This project aims to support the development of a fleet renewal scheme that will allow truck companies to access credit lines to renew their old trucks. It will also support the institutional strengthening of the authority that will be tasked by the government to handle the scheme to ensure that it would have adequate capacity in managing the activities of the project including the relationships between the commercial banks and the trucking companies. The project may include the following: a. Support to the development of a self-sustaining Fleet Renewal Scheme and institutional strengthening the agency assigned by the government to ensure it has adequate institutional and management capacity to administer and manage the truck renewal scheme on behalf of the Government. These supports may include (i) designing of institutional and implementation arrangements for the involved stakeholders (commercial banks, truck operators and other stakeholders) to qualify them for the credit line, (ii) selection of commercial banks to host the line of credit and the selection of operators qualified for truck renewal, including clear flow of funds, and (iii) support in competitive selection of a contractor to manage the truck scrapping system. b. Capacity building and technical assistance for the agency designated by the government to more effectively manage truck renewal scheme.
c. Support to Customs Modernization and Trade Facilitation along the Corridors	This project aims to improve efficiency of trade and transit procedures between Burkina Faso and Togo, Burkina Faso and Cote d'Ivoire, and Burkina Faso and Ghana. The primary activities are (i) ensuring efficient connection of customs information systems within the country (i.e. dry ports to the border for the case of land-locked countries; and ports to borders for coastal countries) and (ii) between the countries (i.e. inter-connection of two customs systems at the border). The proposed project may include the following components: a. Supporting the interconnection of the existing customs' management systems on the four corridors (Ouagadougou-Abidjan, Ouagadougou-Tema/Accra, Ouagadougou –Lomé, Abidjan-Lagos) and implementation of new ICT systems to facilitate regional trade by unifying customs procedures. b. Modernization of customs' clearance procedures and promotion of coordination between customs departments to reduce congestion at gateway ports (Abidjan Port, Tema Port, Lomé Port) and border posts on the corridors and capacity building for customs officials. c. Training of customs officials and external users of customs systems, including support to professionalization of the clearing and forwarding industry through capacity building. d. Anti-harassment campaign including an information drive to different freight transport operators from both the public and private sectors.
d. Enhancement of Government's Road Safety Programme	This project aims to focus on activities to improve the safety of road users including truck transport operators along the three corridors. It will also support the institutional strengthening and capacity building of the primary agency which has the overall mandate for road safety oversight. The following activities may compose the project: a. Capacity building for the primary agency tasked for road safety and monitoring of road safety on the three corridors including effective enforcement of axle load control b. Launching of traffic safety campaigns on the three corridors via television, radio, social activities and other means. c. Identifying accident black spots along the three corridors. d. Provision of training equipment and other materials needed by the primary agency for road safety.
e. Driving Enhancement Training for Truck Drivers Plying the International Corridors	This type of project was started in December 2015 in Côte d'Ivoire through the support of the European Union (EU). The plan for this project is to expand its coverage to the other countries, i.e. Burkina Faso, Ghana and Togo. The objective is to enhance truck driver's skills in driving and understanding of traffic laws, rules and regulations to facilitate the orderly and timely flow of traffic. The training would have two components: (i) theoretical and (ii) practical driving. The former would involve study of traffic rules and regulations while the latter would deal with actual driving of trucks and trailers.
f. Management Enhancement Training for the Managers of Trucking Companies	This type of project has been introduced as well in Côte d'Ivoire through support from the EU. The target for this proposed project is to expand it to the other three countries: Burkina Faso, Ghana, and Togo. The project includes training of managers (the person running the day-to-day activity of the truck company) in legislation covering domestic laws, and regional trade regulations as well company management which cover book keeping, cost calculations, insurance, human resource development among others.

Source: JICA Study Team

29.4.7 Profiles of Priority Projects for Logistics Infrastructure of Togo

Although all the projects are selected from the view point of regional development and corridor development, there are some projects which have greater impact in terms of accelerating regional development hence given a priority. Likewise, project readiness (e.g. FS has been conducted), urgency from the government side to pursue the project, and significant impact into the international logistics chain were also given weight in coming up with the priority list..

(1) Project for Strengthening of Implementation of Customs Union for Sub-Regional Products at National Borders

1) Project Outline

In addition to logistics industry and export of primary commodities (minerals and agricultural products), it is necessary for Togo to diversify economic sectors. The WAGRIC Master Plan recommends paying attention to the potential of economic sectors both in coastal areas and inland areas, by targeting growing sub-regional markets and taking advantage of the customs union which has been institutionalized by UEMOA and ECOWAS.

For this purpose, it is necessary to strengthen the implementation of the customs union by taking advantage of the customs union, which has been institutionalized by the member countries of UEMOA and ECOWAS.

The project aims at enforcement of implementation of the customs union and trade facilitating for sub-regional products with neighbouring countries of the sub-region, especially with Ghana and Benin, along Abidjan-Lagos Corridor. The project will be applied to the national border with Burkina Faso along Lomé-Ouagadougou Corridor.

The project will establish new materials for training and train related agencies and personnel. Campaigns for customs union trade facilitation of sub-regional products will also be implemented together with WAGRIC countries and its surrounding countries under this project.

2) Funding Scheme

ODA Technical Assistance

3) Estimated Project Cost

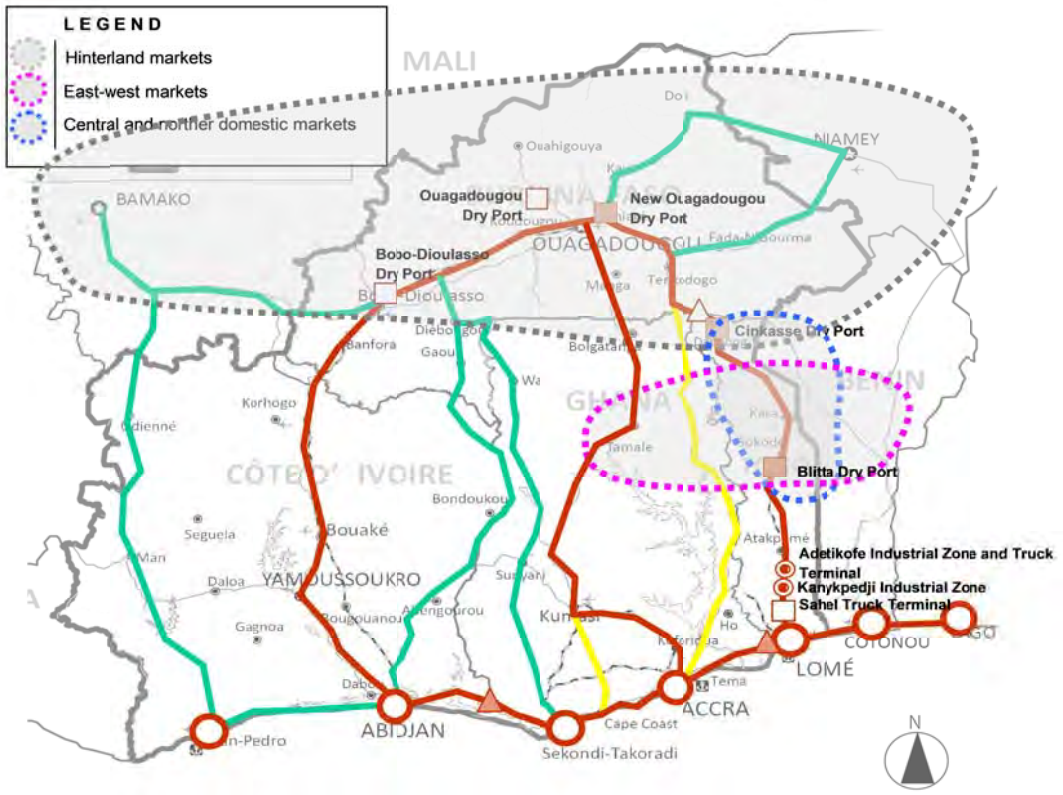
US$ 4 million

(2) Project for Construction and Operation of Multi-Modal Dry Port in Blitta

1) Rationale

This project has been recommended by the 2013-JICA assisted study entitled (The Study on Togo Logistics Corridor Development) as an important facility to realize the concept of Corridor Towns and Logistics Facilities. The idea is to develop a logistic facility which would serve as the hub of the sub-regional economy. The facility will handle both domestic freight and transit freight to Sahel countries (see Figure 29.4.1).

The idea is that freight from Lomé Port to Blitta Dry Port is serviced by railway on both ways. Truck's role would be limited on the final leg, i.e. between the dry port and the final destination. The same arrangement is envisioned on freight for export where truck would unload freight at the dry port and the final leg to Lomé Port would be served by the railway.



Source: JICA Study Team

Figure 29.4.1 Target Markets for Blitta Dry Port

2) Objective

The objective of the dry port is to induce regional development in the heart of the country. This action would have multiple effects such as it would generate jobs, attract new investment, and create new services that would contribute to dispersing development among the regions of the country.

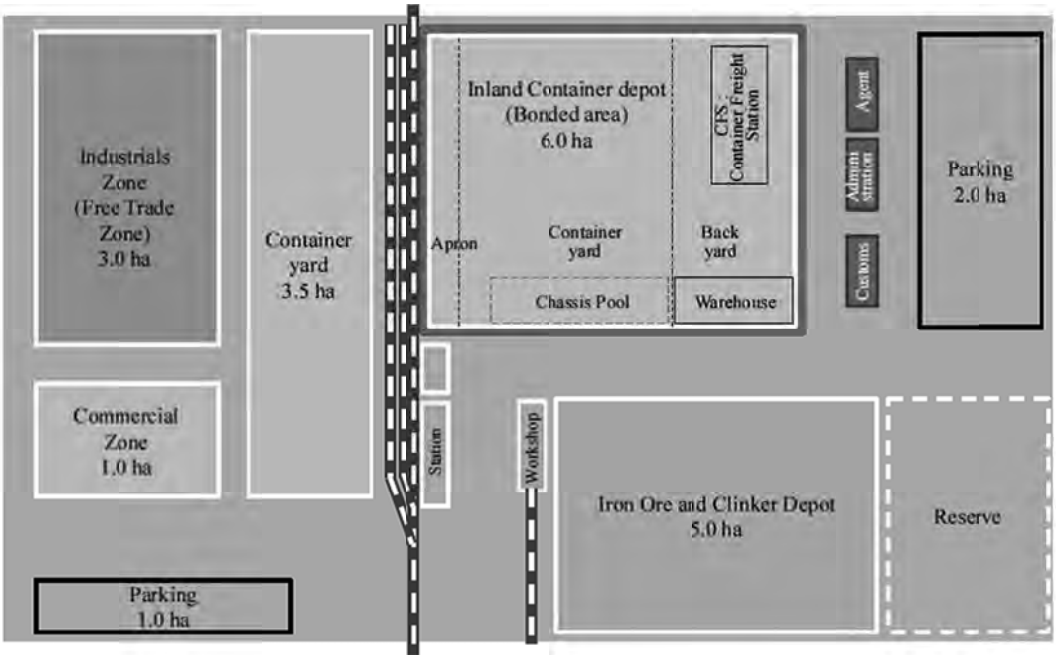
3) Project Description

The project involves construction and operation of a dry port supported by an economic zone (see Figure 29.4.2). The core components of the project are as follows:

- Industrial zone
- Commercial zone
- Container yard
- Truck parking area
- Inland container depot
- Iron ore and clinker depot

For the dry port facility, it is envisioned to offer the following core logistics functions:

- Transit point for freight to Sahel countries
- Transit point, storage, and inventory adjustment to inland areas of Togo
- Inland container depots (ICD)



Source: The Study on Togo Logistics Corridor Development, JICA, 2013

Figure 29.4.2 Layout Plan of Blitta Dry Port

4) Expected Benefits

The expected benefits in this project are as follows:

- Reduction of congestion at Lomé Port
- Improvement of container logistics
- Enhancement of competitive position of Togo for transit trade to the Sahel countries.
- Reduction of transportation costs
- Increase in transportation reliability
- Greater security and safety of transportation
- Upgrading of competitive position

5) Executing Agency

- Ministry of Infrastructure and Transport

6) Estimated Project Cost

EURO 14.616 Million (2013 JICA-assisted study's estimate)

7) Implementation Schedule

To be determined

8) Necessary Actions for Implementation / Critical Factor

Necessary actions for implementing this priority project are as follows:

- Review of the 2013 Financial and Economic evaluation undertaken by the JICA Study Team

9) Related Projects

Related projects are listed as follows:

- The project is envisioned in tandem with the rehabilitation of Lomé-Blitta railway line

10) Social and Environmental Impacts

The 2013 JIA-assisted TLC assessed the possible social and environmental impact of constructing the dry port. The results are as follows:

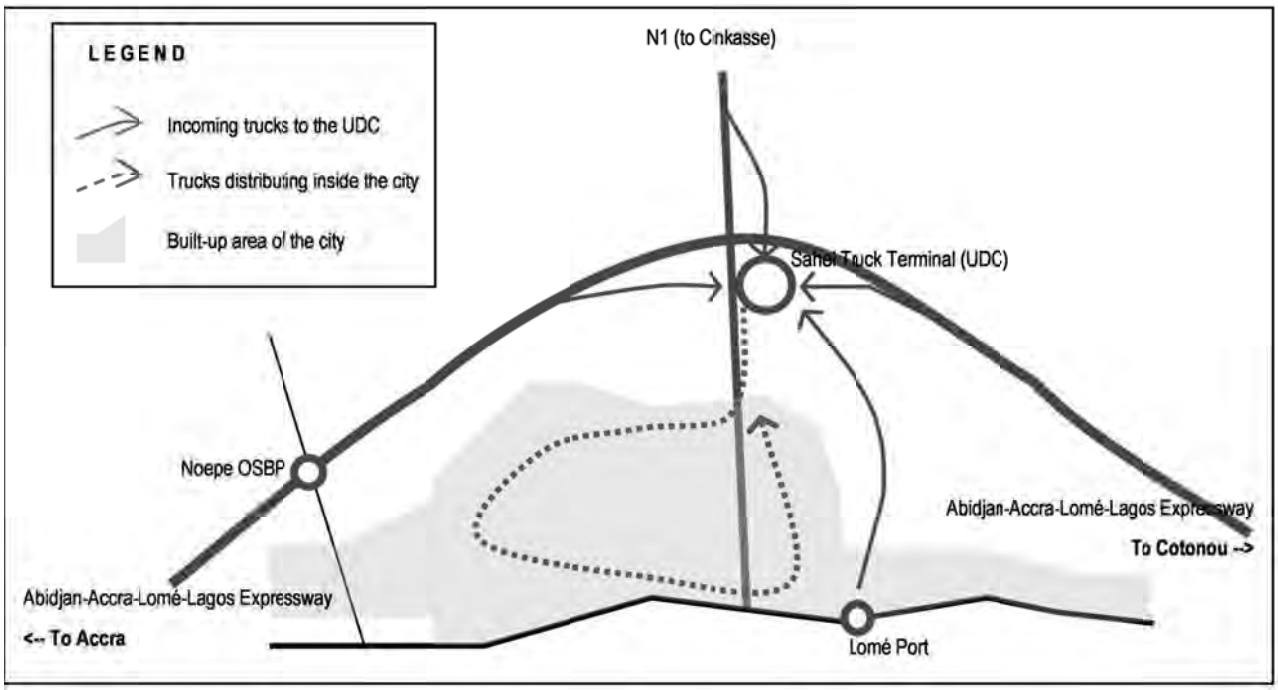
- Environmental impact is B- (some negative impact is expected)
- Social impact is B- (some negative impact is expected)

(3) Modernization of Sahel Truck Terminal (conversion into Urban Distribution Centre)

1) Rationale

With the impending plan to transfer the current functions of Sahel Truck Terminal to the new envisioned Adétikopé Truck Terminal, there's a need to rethink how to best utilize the existing facility. One idea is to convert the facility into a logistics centre (urban distribution centre - UDC) where all cargoes intended for Lomé city (for local consumption) have to be delivered initially in the facility. Cargoes to be diverted into the Urban Distribution Centre (UDC) include (i) those coming from Lomé Port and their destination is Lomé City as well as (ii) those cargoes coming from ECOWAS countries and their destination is Lomé City. In essence, UDC is a place for trans-shipment from long distance traffic to short distance (urban) traffic where the consignments can be sorted and bundled (break-bulk point).

The concept is illustrated in Figure 29.4.3. One of the requirements of the UDC is that it should have good access to the trunk road to ensure smooth movement of trucks. The UDC has good access with the N1 however since the final alignment of Abidjan-Accra-Lomé-Cotonou-Lagos Expressway at the section of Togo has not been determined, it was assumed that it is close to Adétikopé based on the discussion with the government. The on-ramp and off-ramp of the expressway should be designed in a way that it could support exit/entry of trucks from/to the facility. Once this is secured, the next challenge is how to secure the truck route between the UDC and Lomé Port without passing through the city's built-up area.



Source: JICA Study Team

Figure 29.4.3 Concept of Urban Distribution Centre after Conversion of Sahel Truck Terminal

2) Objectives

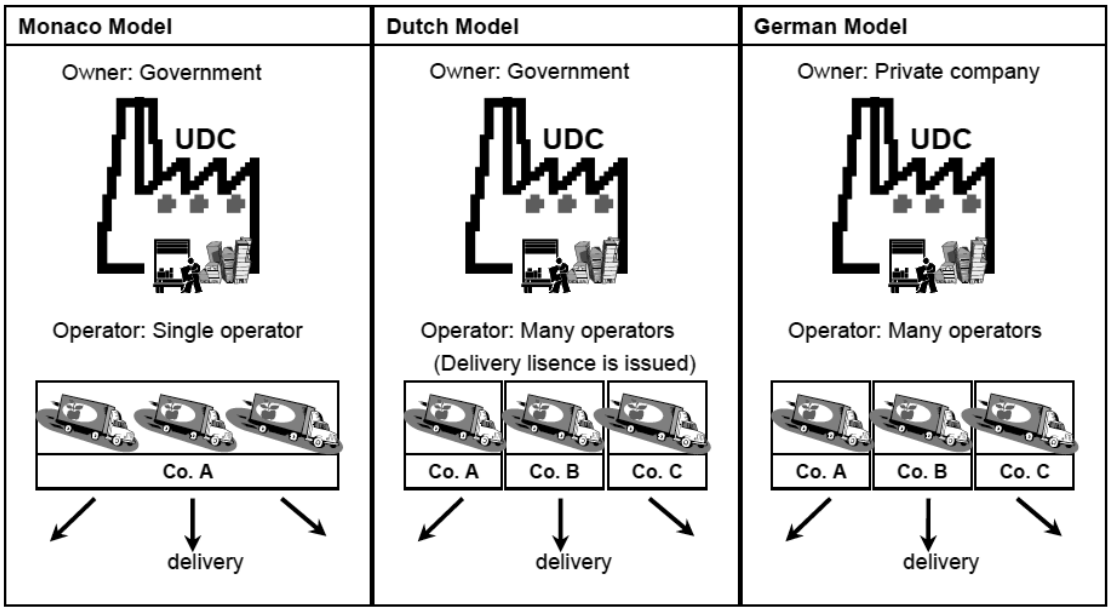
The objectives are as follows:

- To facilitate in the merging of the operations of small companies which lack funds to upgrade their logistics facilities and relocate them outside the city
- Reduction of the number of heavy trucks inside the city thus contributing in reduction of traffic

congestion and improvement of the urban environment

3) Project Description

The project involves conversion of Sahel Truck Terminal into UDC. One of the major tasks in this project is construction of huge warehouses that would be rented out to different logistics operators. As far as financing of facilities is concerned, there are three possible models which are: (i) the Monaco model wherein the government owns the facility and contracts the operation of freight distribution to a single transport company, (ii) Dutch model wherein licenses are given by authorities to operators who meet certain criteria to deliver goods in the city, and (iii) German model which is a private carrier initiative to consolidate freight and distribute it cooperatively. Selection of which model is most suitable should be carefully studied taking into account government resources, private sector's experience to operate such facility, and logistics operators' views (i.e. whether they are willing to utilize the facility in their operation and if they are not willing, what are the incentives to induce them to cooperate by utilizing the facility).



Source: Sinarimbo, N., 2005, Freight Transport Management in the Central Business District: An Empirical Analysis of the Traffic and Environmental Impacts of the Cooperative Delivery System. Unpublished Doctoral Dissertation. Tokyo University of Marine Science and Technology, Tokyo, Japan

Figure 29.4.4 Different Types of Financing and Management of UDC

4) Expected Benefits

The following benefits are expected:

- Improved traffic circulation in the city due to reduced number of trucks (reduction of traffic congestion)
- Improved urban environment (reduction of air pollution, noise pollution, and vibration caused by heavy trucks)
- Improved efficiency in logistics operation due to opportunity of consolidating cargoes for delivery (cost reduction)

5) Executing Agency

- Ministry of Infrastructure and Transport

6) Estimated Project Cost

To be determined

7) Implementation Schedule

To be determined

8) Necessary Actions for Implementation / Critical Factor

The government should be the prime mover to realize the project by organizing a forum with different logistics actors. The purpose is to explain the concept and gauge the level of interest of the private sector in the proposal.

9) Related Projects

None

10) Social and Environmental Impacts

Possible Social and Environmental Impacts are as follows:

- Social impact is minimal since the area is not inhabited. Noise and other types of disturbances caused by construction works are expected.
- Environmental impacts are expected to be minimal and limited to those which might be caused by filling and other construction works.

(4) Construction of Adétikopé Truck Terminal

1) Rationale

This plan by the government is in line with its effort to develop the North-South corridor to better serve transit cargoes as well as inducing development along the corridor. The idea is to transfer the current function of Sahel Truck Terminal into this planned new truck terminal. Along with this facility, the government is also planning to develop Adétikopé Industrial Zone with an area of about 80 hectares.

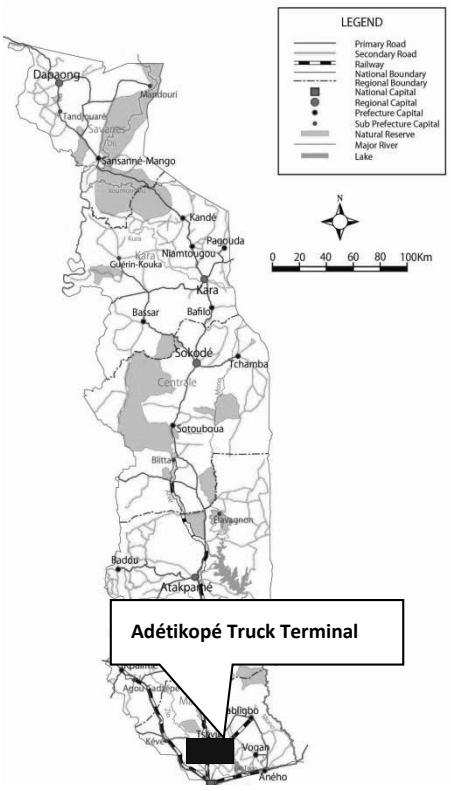
2) Objective

To supply a modern facility where all the needs of trucking and transport operators are provided to improve efficiency of logistics operation in the country.

3) Project Description

The project involves constructing a new truck terminal that could serve as an extension of Lomé Port. This means that the facility is customs controlled and the following activities might be undertaken:

- Transit Documentation
- Installation of Tracking devices on the Transit trucks
- Issuance of insurance
- Provision of Waybill
- Other formalities



Source: JICA Study Team

Figure 29.4.5 Project Location of Adétikopé Truck Terminal

The area of the facility is about 60 hectares which could serve more than a thousand vehicles. Empty trucks waiting for their turn in the first-come first-serve system might be accommodated as well in the facility depending on the final design and plan after careful study. Another idea is for the Sahel Truck Terminal to serve as a holding area for trucks waiting for their cargoes. The decision on how to allocate the function for each facility should be carefully studied.

4) Expected Benefits

The following benefits are expected in this project:

- Contribute to decongesting Lomé Port by allowing containers to automatically depart the port and formalities will be carried out at the dry port
- Enhancement of Togo's competitiveness position for transit cargo to land-locked countries
- Promotes greater security and safety of cargoes
- Improved efficiency in logistics operation due to concentration of logistics services

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- Port Autonome de Lomé
- Ministry of Infrastructure and Transport

6) Estimated Project Cost

To be determined

7) Implementation Schedule

To be determined

8) Necessary Actions for Implementation / Critical Factor

Feasibility study should be carried out.

9) Related Projects

The proposed Truck Terminal is a complementary project for the proposed Adétikopé Industrial Zone by the government.

(5) Construction of Cinkasse Dry Port

1) Rationale

Ultimately the Cinkasse Dry Port has to be built in accordance with the phasing development of the railway. This proposed project is in line with the 2013 JICA-assisted project (The Study on Togo Logistics Corridor Development). The project is envisioned as the gateway of Togo in freight facilitation with the land-locked countries. There are compelling reasons for the construction of the facility and one of these is to take advantage of the planned construction of the railway line from Lomé to Cinkasse. In order to fully utilize the railway line, a freight terminal at the end of the line is necessary which would permit intermodal operation (transfer of freight from rail to truck or the other way around). Another reason is the anticipated heavy investment into infrastructure development of the rival corridors to strengthen their position in relation with transit freight. Togo could not afford to take the position of do-nothing while the rest is filling in their infrastructure gap. By constructing the dry port, in essence the country is bringing closer to the clients (land-locked countries) services at their primary port, Lomé Port.

2) Objective

The overall goal of the project is to strengthen the position of the country as far as transit freight is concerned. Likewise, this facility would trigger regional development driven by the new services created at the dry port. And these services would attract new investment which would in turn generate jobs.

3) Project Description

Construction of the dry port at Cinkassé has been long envisioned by the government as part of their broader strategy of making the country the primary logistics hub of the sub-region. This is in tandem with the plan to further strengthen N1 and to construct a railway line from Lomé to the country's border with Burkina Faso.

In this Study, the railway development programme was set as follows:

- 1st stage: Construction of Lomé-Blitta (Target year is 2030)

- 2nd stage: Construction of Blitta- Kabou (Target year is 2030)
- 3rd stage: Construction of Kabou-Cinkassé (Target year is 2040)

Like the planned dry port in Blitta, the core components of the project are as follows:

- Industrial zone
- Commercial zone
- Container yard
- Truck parking area
- Inland container depot

The dry port facility should offer the following core logistics functions:

- Transit point for freight to Sahel countries
- Transit point, storage, and inventory adjustment to inland areas of Togo
- Inland container depots (ICD)

As seen in Figure 29.4.6, freight from Lomé Port is envisioned to be transported through the railway (or at least majority of the freight). Truck will pick up freight destined to land-locked countries at the dry port. The same pattern is expected for freight for export that would go through the Port of Lomé. Trucks from land-locked countries unload their freight at the dry port where customs clearance and other formalities are undertaken and from thereon freight is serviced by the Cinkasse-Lomé railway line.

4) Expected Benefits

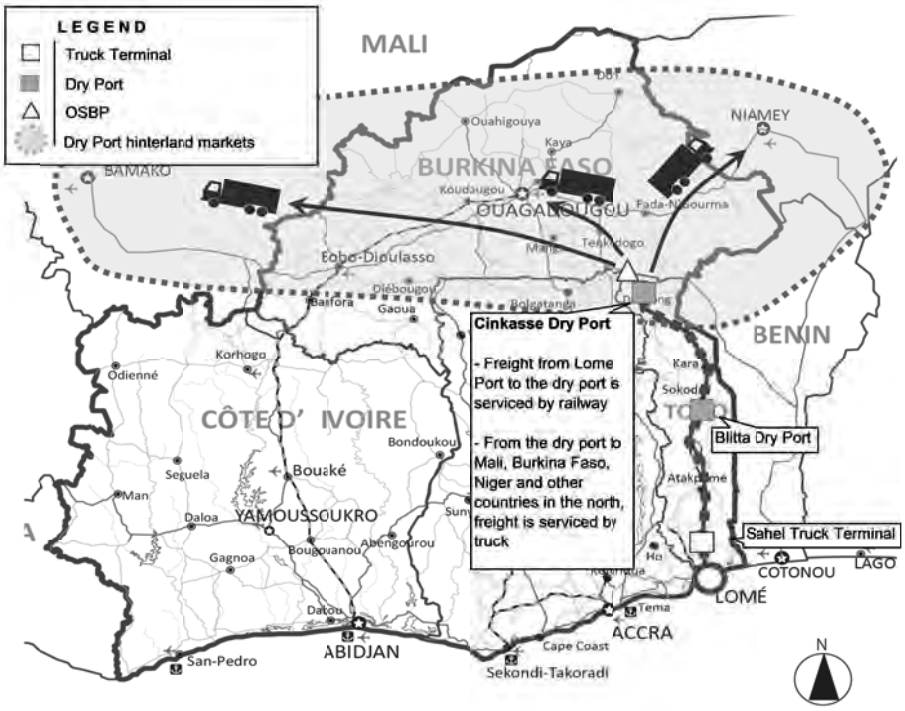
The expected benefits in this project are as follows:

- Reduction of congestion at Lomé Port
- Improvement of container logistics
- Enhancement of competitive position of Togo for transit trade to the Sahel countries.
- Reduction of transportation costs
- Increase in transportation reliability
- Greater security and safety of transportation
- Upgrading of competitive position

5) Executing Agency

Expected executing agency for this project is listed below.

- Ministry of Infrastructure and Transport



Source: JICA Study Team

Figure 29.4.6 Concept of Cinkassé Dry Port vis-à-vis Mode of Freight Transport

6) Estimated Project Cost

To be determined

7) Implementation Schedule

To be determined

8) Necessary Actions for Implementation / Critical Factor

Feasibility study should be undertaken in tandem with the Lomé-Blitta-Cinkassé Railway line

9) Related Projects

Related projects are listed as follows:

- Lomé-Blitta-Cinkassé railway line

10) Social and Environmental Impacts

Extent of social and environmental impact will be known during the feasibility study stage

29.5 Air Transport Sector in Togo

29.5.1 Present Physical Situation of Air Transport and Airports in Togo

(1) Present Operating Civil Airports in Togo

In Togo, there is one operational international airport, which is Lomé International Airport. There are six regional airports, namely Anie, Atakpame, Dapaong, Niamtougou (Kara), Sansanne-Mango and Sokode. Niamtougou (Kara) Airport used to have regular flights but currently none of the regional airports have regular flights.

Source: JICA Study Team

Figure 29.5.1 Location of Operational Airports in Togo

(2) Present Air Transport in Togo

The 18 destinations of international passenger flights from and to Lomé International Airport are currently as follows:

- Abidjan, Abuja, Accra, Addis Ababa, Bamako, Bissau, Brussels, Casablanca, Conakry, Cotonou, Dakar, Douala, Lagos, Libreville, Malabo, Ouagadougou, Paris and Yaoundé. (Source: OAG July 2015, Time Table).

(3) Present Situation of Lomé International Airport

Lomé International Airport is the gateway airport and the only operational airport in Togo.

The number of passengers at Lomé International Airport grew rapidly from 2010 to 2014 at an annual growth rate of 9%, and recorded 620,000 passengers in 2014. The 620,000 passengers in 2014 are expected to increase to 1,200,000 by 2020.

The volume of transit passengers was 170,000 passengers in 2014, which is comparable to the volume of transit passengers at Accra Airport in 2014. This large number was due to the active operation of ASKY airline, which is operated in a coordinated manner with Ethiopian Airline.

In the WAGRC Sub-Region, at present, Accra International Airport and Lomé International Airport have been competing with each other to attract more international transit passengers. Compared with Accra, Lomé has a large advantage for attracting more international transit passengers because it does not have a large amount of its own international passengers or domestic air passengers nor will it have even in the future.

The air traffic volume of international cargos at Lomé International Airport increased at an annual growth rate of 1.5% from 2010 to 2014.

Togo has a future plan to develop a new airport in Davie Area, which is located near Tsévié to the north of Lomé.

(4) Present Situation of Niamtougou (Kara) Airport

The existing Niamtougou Airport has a 2,500m runway and operation of B737 class aircraft is available, but no regular flights are operated due to lack of traffic demand.

29.5.2 Issues regarding Air Transport in Togo

The following issues confront the air transport in Togo:

- Although there are full airport facilities at Niamtougou Airport in Kara, no operating domestic flights which hinders the development of inland areas of Togo
- The rapid increase of passengers using Lomé International Airport which can soon exceed the capacity of the current airport

29.5.3 Objectives for the Aviation Sector of Togo

The objectives for the development of the aviation sector in Togo are defined as:

- To maintain the status of Lomé International Airport as one of the major hub airports in West Africa
- To provide facilities to improve access to remote regions, enhance mobility and develop opportunities for travel within the country as well as to increase the frequency of domestic flights

29.5.4 Strategies for the Aviation Sector of Togo

The strategies for the development of aviation sector in Togo are the following:

- To increase the capacity of Lomé International Airport for the future increase in both cargo and passenger flights including the development of a new international airport in Davie near Tsévié
- To encourage private sector participation in the aviation industry

29.5.5 Programmes and Projects for the Aviation Sector of Togo

- Construction of a New Lomé International Airport in Davie near Tsévié
- Project for Functionalization of Kara Regional Airport by Operationalizing Lomé- Kara Line)

29.6 Electricity Supply of Togo

29.6.1 Present Situation of Electricity Supply in Togo

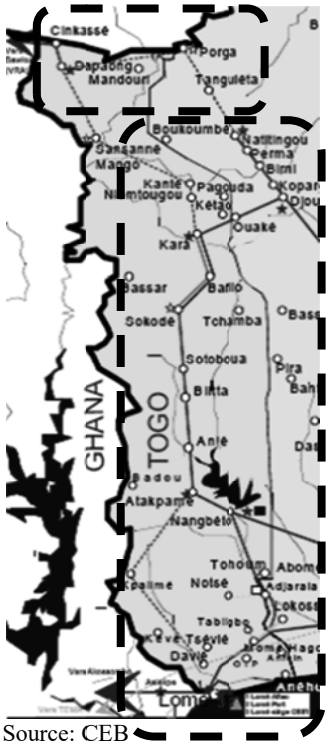
The power demand in Togo has steadily increased due to Togo's economic growth as neighbouring countries have done. The maximum power demand has also been updated year by year, and it was recorded to be 203MW in 2014. The annual growth rate of the peak demand for 2014 in Togo was approximately 12%. This was the highest level of annual growth rate among the four countries. In fact, the annual growth rates of the other three countries of WAGRIC, namely, Ghana, Burkina Faso, and Côte d'Ivoire, in 2014, were 10%, 9%, and 7% respectively.

In terms of the power system capacity of Togo, the Togolese grid is not so large-scale comparing to the adjacent countries. For the domestic power demand, the existing power plants, NANGBETO hydro power plant, CONTOUR GLOBAL thermal power plant, and TAG LOME thermal power plant are supplying the power, of which the total installed capacity is 185MW and this volume accounts for approximately 70% of the total demand. In addition to the power supply by the existing power plants, the power is imported mainly from Côte d'Ivoire through Ghana and Nigeria, and Togo depends on imported power. However, due to the unstable power supply, especially from Nigeria, it is required for Togo to improve the quality of the power supply. Policies for development of Togolese power systems place great importance on attracting both foreign and domestic investors who can establish power plants.

29.6.2 Issues on Electricity Supply of Togo

The present main issues related to the power sector are as follows:

- Most of the domestic power demand is supplied by adjacent countries, such as Ghana and Nigeria. This means high dependency on the outer environment in terms of power supply. In 2014, the power supply from Ghana was interrupted only twice, while the power supply from Nigeria was interrupted thirty six times according to the transmission company, CEB.
- CEB and Togolese distribution company, CEET, are faced with a difficulty in expanding and rehabilitating the power facilities required for satisfying the growing demand. Due to the shortage of financial resources, they cannot rehabilitate and replace power facilities or even afford to conduct the studies necessary for creating development plans.
- Aged power facilities are still used, and they cause faults in the lines, cables and transformers. This is also because the power company does not have sufficient funds to properly maintain their own power facilities.
- As shown in Figure 29.6.1, power is supplied to Dapaong, capital of Savanes Region, from Ghana through the 161kV transmission lines connected to the main grid of Ghana. Also, through this transmission line the power is supplied to Cinkansé in Burukina Faso, too. However, Dapaong is not connected to the main grid of Togo which covers the middle and southern parts including Lomé.



Source: CEB

Figure 29.6.1 Two Main Grids in Togo

29.6.3 Objectives for Development of Electricity Supply of Togo

In the light of the issues on the power sector, the following objectives need to be set for development of electricity supply:

- To develop the domestic power resources so as to reduce the dependency on external power supply
- To realize reliable and high quality power supply
- To enable the bulk power to transfer to potential areas for economic sector development

29.6.4 Strategies for Development of Electricity Supply of Togo

Since it takes time to establish the power facilities required to achieve the objective, it is significant to prepare strategic plans based on the priority of the development as follows:

- The development strategy in the power sector of Togo is focusing on the development of the network and the hydroelectric potential in the Mono river basin. Togo has a strong hydroelectric potential distributed all over the country and the evaluation study on the potential of the hydroelectric is ongoing with the assistance of the European Union (EU).
- The feasibility study for construction of a coal power plant is ongoing controlled by the Presidency of the Republic of Togo.
- It is important to connect the northern network with the main grid established for the middle and southern region of Togo by new 161kV transmission lines.
- The water resources are found in the mountainous areas located in the eastern part of Togo that could be utilized. Power should be generated using domestic natural resources for economic growth, as well as for reducing the burden on the power consumers.
- In order to supply the power at a competitive price, it is required to establish a power market where the reserve margin can be sufficiently ensured. In a market where the power demand exceeds the available power supply, the electricity tariff has a tendency to rise. Also, there is a possibility that the dependency on the development of the power resources by investors and private companies would cause a delay in the power development plans and lead to the chronic lack of power resources. Accordingly, it is recommended that the power plants, which can produce the power at a lower cost, are developed led by the Government for the time being, in parallel with attracting investors to the power sector.

29.6.5 Programmes and Projects for Electricity Supply of Togo

The following projects are formulated and included in the development plans that have been created by power companies for power generation, power transmission and power distribution:

(1) Projects for Development of Power Generation in Togo

These development plans are designed for the purpose of the first bullet point in the objectives described above.

- Development Plans of Several Hydropower Plants Implemented by EU
- Coal Thermal Power Development Plan Studied by TOGO INVEST
- Tetetou Hydropower Development Plan
- Upgrading of Tago Lomé Thermal Power Plant
- Development of Adjarala Hydropower Plant
- Expansion of Kozah Hydroelectric Power Plant

(2) Projects for Development of Power Transmission Lines for Togo

The power system development plans in Togo are classified into two categories, namely, “regional transmission lines” and “international transmission lines”.

1) International Transmission Lines

- 330kV Transmission Line: Accra (Ghana) - Lomé C - Sakete (Bening) [350km] for the second and third bullet points in the objectives described above.
- 330kV/161kV Transmission Line: Khara - Yendi (Ghana) [135km] for the second and third bullet points in the objectives described above
- 161kV Transmission Line: Porga (Benin) - Kompienga (Burukina Faso) [35km] for the second

bullet point in the objectives described above

2) Regional Transmission Lines

- 161kV Transmission Line: Natitingou-Porga (Benin)-Dapang[210km]
- 161kV Transmission Line: Atakpamé-Kara [246km]
- 161kV Transmission Line: Davie-Notsé-Atakpamé [125km]

29.6.6 Profiles of Priority Projects for Electricity Supply of Togo

In consideration of corridor development in Togo, priority should be given to the following projects, and profiles of these projects are prepared as follows:

(1) Project for Construction of 161kV Interconnection Line (Porga-Kompienga) with Burkina Faso

1) Rationale

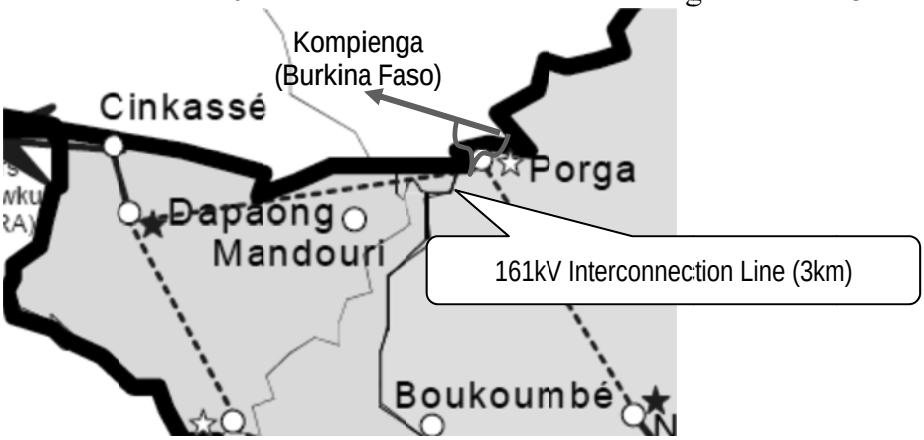
In order to realize the first interconnection with Burkina Faso, it is necessary to construct 161kV transmission lines from Porga (Benin) to Kompienga (Burkina Faso). This project could also contribute to the improvement of the reliability of the power supply.

2) Objective

The objective of this project is to realize direct power trade between CEB and SONABEL and to improve the system reliability of the power grid in Togo.

3) Project Description

- Construction of two circuits of 161kV transmission lines with a line length of around 3km



Source: CEB

Figure 29.6.2 Location of 161kV Interconnection Line with Burkina Faso

4) Expected Benefits

The following impacts and benefits are expected in this project:

- To contribute to the improvement of the system reliability and reduction of power failure
- To enable selling the surplus power to Burkina Faso

5) Executing Agency and Related Institution

Expected executing agency and related institution for this project are listed below.

- Ministry of Mines and Energy of Togo (MMET)
- Communauté Électrique du Bénin (CEB)
- Société Nationale d'électricité du Burkina (SONABEL)

6) Estimated Project Cost

The project cost would be estimated in Table 29.6.1. For estimation, it was calculated using standard unit price applicable to the construction work for power facilities in Japan and a ratio of construction cost between Japan and Ghana, "0.4"(Source: Website, "https://archi-book.com.).

Table 29.6.1 Estimated Project Cost for Project for Construction of 161kV Interconnection Line with Burkina Faso

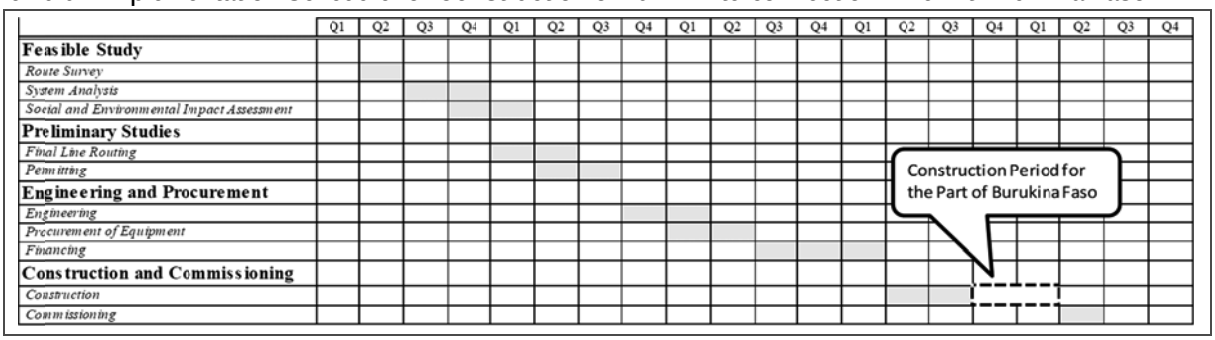
Project Components	Estimated Cost [Million JPY]	Remarks
Transmission Facilities	14.4 ~ 44.4	2cct, 161kV, 3km

Source: "Standard Unit Price for Construction Work of Power Facilities", issued by Organization Cross-regional Coordination of Transmission Operators, JAPAN (OCCTO)

7) Implementation Schedule

The project implementation schedule is estimated to be around four and half (4.5) years.

Table 29.6.2 Implementation Schedule for Construction of 161kV Interconnection Line with Burkina Faso



Source: Created by JICA Study Team

8) Necessary Actions for Implementation / Critical Factor

Necessary actions for implementing this priority project are as follows:

- Feasibility Study
- Social and Environmental Impact Study

9) Related Projects

Project for construction of new 161kV inter-connection lines with Benin in Burkina Faso

(2) Project for Construction of Adjarala Dam and Hydropower Plant

1) Project Outline

The WAGRIC Master Plan recommends the diversification of economic sectors both in inland areas and coastal areas. The WAGRIC Master Plan pays attention to both urban development and rural development in its recommended growth scenario. Urban centres along the economic corridors (both north-south corridors and the coastal east-west corridor) are strategic locations to attract manufacturing industries. In order to support such development of manufacturing sectors in urban centres, it is important to provide economic infrastructures, such as water supply, electricity supply and industrial parks.

The power demand in Togo has steadily increased due to Togo's economic growth. In fact, the annual growth rate of the peak demand for 2014 in Togo was approximately 12%. This was the highest level of annual growth rate among the WAGRIC countries.

About 70% of power demand was satisfied by the Togolese power plants. Approximately 30% of the power demand is met by importing from Côte d'Ivoire through Ghana and Nigeria. However, due to the unstable power supply, especially from Nigeria, it is required for Togo to improve the quality of its power supply.

Policies for development of Togolese power systems place great importance on attracting both foreign and domestic investors for establishing power plants. While an electricity company (CEB) supplies electricity to Togo and Benin, the national economies of the two countries are not large enough to build a large thermal power generation using imported fuels. Therefore, it is necessary for Togo to utilize its natural sources of energy for power generation and to reduce the financial burden on power consumers. The water resources that could be utilized are found in the mountainous areas located in the eastern part of Togo. Currently Togolese government's power development strategy focuses on the hydroelectric potential in the Mono river basin.

The project aims to construct Adjarala Dam (40-meter-tall rock and earth dam) on the Mono River, a hydropower plant (147 MW) and a transmission line for increasing Togo's own power generation.

2) Funding Scheme

ODA Loan

3) Estimated Project Cost

US$ 400 million

(3) Adjarala Hydro Power Development Project

1) Rationale

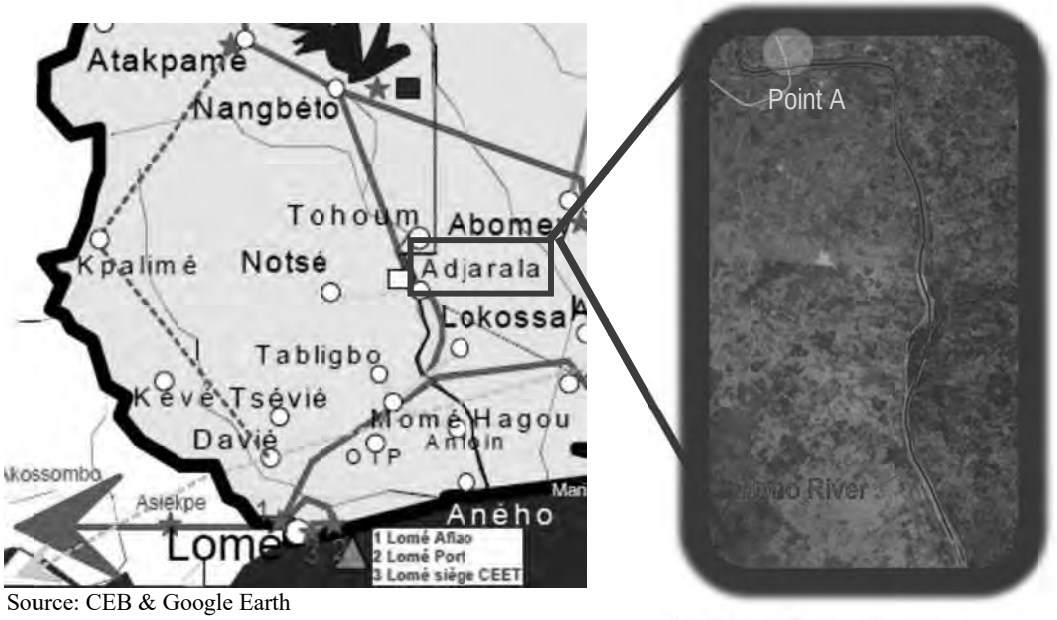
It is important to develop the hydro power plant utilizing domestic natural resources, such as water resources for national energy security in order to reduce the dependency on external power supply.

2) Objective

The objective of this project is to increase the capability of power supply in Togo by utilizing natural resources.

3) Project Description

The development of Adjarala hydro power plant is considered one of the potential hydro power plants that will highly contribute to the power supply in Togo. In its development plan, it is planned as a storage type with an output of 34MW according to MME. However it takes long time to develop it along with the construction of dam and might require long patience to realize it. Instead, the low-head type of hydro power plant, which has less environmental impact and whose construction does not require long period compared to the storage type, is recommendable here. The potential location for the Adjarala hydro power plant in the Mono river basin is shown in Figure 29.6.3.



Source: CEB & Google Earth

Figure 29.6.3 Location of Adjarala Hydro Power Plant

For identification of its desirable location, it is crucial to evaluate an effective head for computation of expected output because the low-head hydro is adequate for the location where the effective head is from 15m to 7m. Figure 29.6.4 represents the altitude profile for potential location for low-head type of hydro power plant and "Point A", the effective head of which is 8m and the largest in this basin, is recommended as its potential location.

Source: CEB & Google Earth

Figure 29.6.4 Altitude Profile for Potential Location for Hydro Power Plant

The turbine applied to the low-head type of hydro is shown in Figure 29.6.5.

Kaplan Turbine（conventional type） Bulb-type Tubular Turbine（up-to-date type）

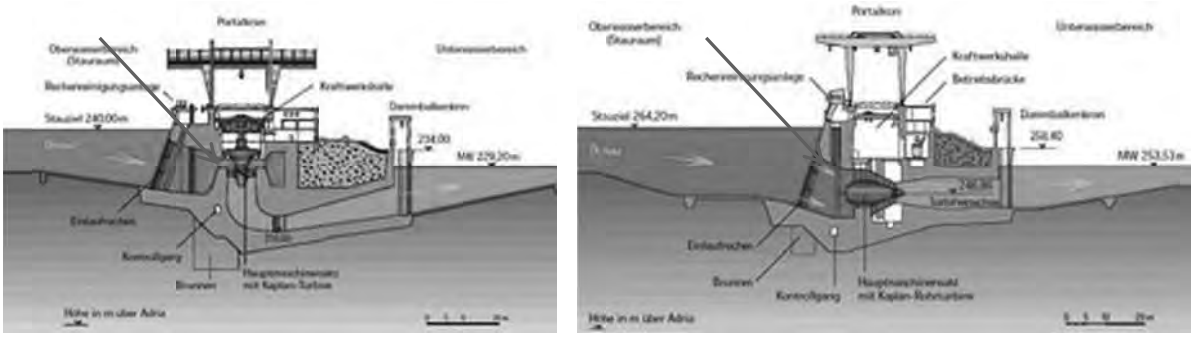


Figure 29.6.5 Image of Low-head Type of Hydro Power Plant (Run-of-River Type)

The ideal power output of hydro can be calculated based on the following formula.

$$Q = 9.8QH$$

Q: Flow Rate [m^3/s]

H: Effective Head [m]

The flow rate of the targeted area provided by MMT is $107m^3/s$. Accordingly, the ideal power output is as follows:

$$Q = 9.8 \times 107 \times 9 \cong 8.38[MW]$$

4) Expected Benefits

The following impacts and benefits are expected in this project:

To contribute to the improvement of the domestic power supply capacity

To contribute to the reduction of greenhouse gas emitted from power plants

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- Ministry of Mines and Energy of Togo (MMET)
- Communauté Électrique du Bénin (CEB)

6) Estimated Project Cost

Generally, the unit cost [USD/kW] for the middle-scale of hydro power plant is estimated to be from 2.3 to 3.0 [Million USD/MW]. Considering the computed output, 8.38MW, the project cost would be roughly estimated to be from 19.2 to 25.1 Million USD.

7) Implementation Schedule

The implementation schedule would be estimated as follows:

Table 29.6.3 Implementation Schedule for Construction of Adjarala Dam and Hydropower Plant

	2017				2018				2019				2020				2021				2022				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Feasibility Study																												
Water Flow & Geographic Survey																												
Surveys on Fishery & Water Rights																												
System Impact Study																												
Economic Analysis																												
Social and Environmental Impact Assessment																												
Financing																												
Financing																												
Permitting																												
Engineering and Procurement																												
Engineering (Basic Design)																												
Bidding Preparation & Bidding																												
Construction and Commissioning																												
Detailed Design																												
Construction																												
Commissioning																												

Source: Created by JICA Study Team

8) Necessary Actions for Implementation / Critical Factor

Necessary actions for implementing this priority project are as follows:

Social and Environmental Impact Study

- Social and Environmental Impact Study
- System Impact Study
- Surveys on Fishery & Water Rights
- Water Flow & Geographic Survey
- Economic Analysis

29.7 Water Resources in Togo

29.7.1 Current Situation of Water Resources in Togo

(1) Water Resources Potential and Water Use

According to FAO-Aquastat, the total renewable water resources in Togo is estimated at 14.7BCM/yr, of which 11.5BCM/yr are generated internally. The total reservoir capacity is 1.7BCM in 2010.

The estimated total volume of water use in 2007 was 129MCM/yr, which is about 0.9% of the total renewable water resources. The highest consumable water use is domestic use (72MCM/yr), followed by agricultural use (42MCM/yr) and industrial use (15MCM/yr).

(2) Legal Framework regarding Water

The existing water resources management and development is anchored on the following documents:

- The Strategy for Accelerated Growth and Employment Promotion (SCAPE 2013-2017)
- National Strategy for Sustainable Development (NSSD)
- National Water Policy 2010 focused on IWRM and based on recognition of the broad impact of water on the country (social, economic and environmental)
- Sub-sector policy of drinking water and sanitation in rural and semi urban areas (2006) with the aim to sustainably improve equitable access of rural and semi-urban populations to safe drinking

water and to modern sanitation

- Policies and National Strategies for the Integrated Management of Water Resources in Togo (2006)
- National Water and Sanitation Action Plan
- Water Code of 2010
- The National Action Plan for Integrated Water Resources Management
- Law on the organization of public drinking water and community sanitation for domestic wastewater

(3) Existing Plans and Programmes regarding Water

1) Water Sector in National Development Plan for Togo

The Strategy on Accelerated Growth and Employment Promotion (SCAPE) (2013-2017) is the latest national development plan in Togo. Among the five strategies shown in the SCAPE, the water sector is mainly related to the following strategy.

- Strategy-3: Development of the human capital, the social protection and the use of water

Within the above strategy, the following actions are proposed for the access to drinking water and sanitation.

- Implement the National Action Plan for IWRM
- Improving equitable and sustainable access to safe drinking water
- Improving people's access to adequate sanitation, and promoting good hygiene and sanitation
- Improve sector performance

2) National Action Plan for Water and Sanitation (PANSEA) for Togo

The Sector National Action Plan for Water and Sanitation (PANSEA) 2015 essentially aims at achieving the Millennium Development Goals (MDGs) related to water sector and sanitation.

After five years of implementation, the results remain mixed globally in terms of results and is difficult in terms of reference, indicators and precision in the forecasts. Indeed, the exercise of the review, conducted in 2014, helped to highlight the intrinsic and extrinsic features of PANSEA that have plagued the expected growth over the period. This does not exclude the positive aspects that remain an asset to the area.

Despite major gains, it should take account of new mutations that influence the development of the water sector and sanitation include: (i) changes in the national context characterized by rapid population growth, increasing rapid urbanization, the level of poverty of the population, the effects of climate change and the various reforms carried out in the field or in connection with the sector; (ii) the changes at the regional level such as new concepts contained in the provisions of Directive UEMOA and internationally mutations such as sustainable development goals (SDGs) in 2030, the various commitments and global declarations which Togo has subscribed.

These considerations militated for a formulation of a new policy on water and sanitation (NAEP) with a variation of a new version of a national action plan for the water sector and sanitation by 2020 (in actualization).

3) National Action Plan for IWRM (PANGIRE) for Togo

The National Action Plan for IWRM (PANGIRE) was prepared in 2010 to promote IWRM in Togo.

The specific objectives of the action plan are as follows:

- Define and plan the implementation of the future framework for integrated water resources management;
- Identify the main specific actions to be taken and propose the means necessary for their implementation

The PANGIRE was developed toward 2025. Forty-one actions structured in eight domains have been proposed to achieve the objectives. They are:

- Action Area 1: Creating good governance for water
- Action Area 2: Institutional setting
- Action Area 3: Management instrument
- Action Area 4: Economic and financial setting
- Action Area 5: Capacity development
- Action Area 6: Planning and management of water resources
- Action Area 7: Conservation and protection of water resources
- Action Area 8: Risks to water resources

29.7.2 Issues regarding Water Resources in Togo

The major issues regarding water resources management and development, which have been identified in relation to the corridor development, are shown in Table 29.7.1.

Table 29.7.1 Major Issues regarding Water Resources Management and Development in Relation to Corridor Development in Togo

Major Issue	Description
Increasing water demand for urban water supply	It is expected that the urban centres along the growth corridor will be developed more intensively, according to the corridor development. It is necessary to address the increasing water demand for urban water supply in order to secure the appropriate urban environment for the regional growth. As shown in Table 29.7.2, the current bulk water supply capacity per capita in Greater Lome is about 20liter per capita per day (lpd), which is very low. For all major urban centres along major corridors, the bulk water supply capacity per capita in 2025 is expected to be reduced to about 60% of that in 2015 if there will be no additional water source development.
Necessity of coordinated use of existing reservoirs	The existing reservoirs could be utilized by different water users. For example, the planned irrigation project in Oti River assumes utilizing the regulated water from Kompienga hydropower dam located in Burkina Faso. Proper coordination is required for the stable usage of water.
Uncompleted IWRM plans at basin level	There will be a high water demand due to the development of the corridor. It is necessary to coordinate the various uses of water through the development and implementation of the IWRM plan in river basins. At present, there is no development master plan and water management (SDAGE) for the three river basins of the country.

Source: JICA Study Team

Table 29.7.2 Bulk Water Supply Capacity per Capita for Major Urban Centres along Major Corridors

	Current Capacity (m^3/day)	Current Actual Production (m^3/day)	Population (2015)	Production per capita (lpd) (2015)	Population (2025)	Production per capita (lpd) (2025) without additional water source development
Greater Lome	50,000	40,000	1,932,000	20.7	2,933,000	13.6
Kara	9,000	9,000	120,000	75.0	194,000	46.4

Source: Capacity and actual production – SP-EAU, Population –JICA Study Team

29.7.3 Objectives for Water Resources in Togo

(1) Overall Objective

The overall objective of the water resources management and development in the present study is as follows:

"Sustainable and secured water source for major urban centres along major corridors and other water needs such as agriculture and power generation to support promising regional economic growth."

(2) Specific Objectives

To fully discuss the water resources management and development for the whole of all the countries and covering all sub-sectors related to water is a big task which should be conducted by the appropriate responsible agencies as a separate study on the water sector. Instead, the present study specifically focuses on the following areas on the basis of the existing water sector policy and plans:

- Water resources management for sustainable water use in relation to corridor development
- Water source development for urban water supply including conveyance, transmission and treatment for major urban centres along major corridors
- Large scale water resources development in relation to the economic and infrastructure sector programs and projects shown in the present study

On the basis of the overall objective as well as the above-mentioned considerations, the specific objectives of the water resources management and development are set as follows.

Objevtive-1: Sustainable and secured water source for major urban centres along major corridors
Objevtive-2: Effectively utilized water resources for the economic and infrastructure sectors to support promising regional economic growth
Objevtive-3: Well-functioning Integrated Water Resources Management

As for the major urban centres along major corridors, the following urban centres are selected for discussion in the present study.

- Lomé
- Kara

29.7.4 Strategies for Water Resources in Togo

On the basis of the major issues as well as the current situation and future prospects described in the Progress Report, the strategies to achieve the specific objectives are proposed as shown in Table 29.7.3.

Table 29.7.3 Strategies on Water Resources Management and Development in Togo

Specific Objective		Strategy
Objective-1: Sustainable and secured water source for major urban centres along major corridors	1a: Lomé	Strategy 1a-1: Implementation of planned new water sources development from Volta River Strategy 1a-2: Study and its implementation for new water sources with long-term perspective considering multiple water sources such as Zio dam and conveyance from Mono River
	1b: Kara	Strategy 1b-1: Effective use of existing Kozah dam Strategy 1b-2: Study and its implementation for new water sources such as Bafilo with long-term perspective
Objective-2: Effectively utilized water resources for economic and infrastructure sectors to support promising regional economic growth		Strategy 2-1: Effective use of existing reservoirs Strategy 2-2: Implementation of planned hydropower and irrigation projects Strategy 2-3: Early implementation of existing sanitation projects
Objective-3: Well-functioning Integrated Water Resources Management		Strategy 3-1: Development of Schéma Directeur d'Aménagement et Gestion de l'Eau (SDAGE) for three river basins in Togo

Source: JICA Study Team

29.7.5 Programmes and Projects for Water Resources in Togo

The programmes and projects based on the strategies are listed in Table 29.7.4.

Table 29.7.4 Programmes and Projects regarding Water Resources Management and Development in Togo

Specific Objective	Programme and Project	Related Strategy	Expected Responsible Organization	Term	
				Short-Mid. 2025	Long 2040
Objective-1: Sustainable and secured water source for major urban centres along major corridors					
1a: Lomé	Sogakope - Lomé Transboundary Drinking Water Supply Project (230,000m³/day) by PPP	1a-1	GWCL/ SP-EAU	x	
	Study for new water source development including Zio dam and conveyance from Mono River for Lomé water scheme	1a-2	SP-EAU	x	
	Implementation of new water source development for Lomé water scheme	1a-2	SP-EAU	x	x
1b: Kara	Expansion of WTP in Kozah dam (9,000m³/day)	1b-1	SP-EAU	x	
	Study for new water source development including conveyance from Bafilo for Kara water scheme	1b-2	SP-EAU	x	
	Implementation of new water source development for Kara water scheme	1b-2	SP-EAU		x
Objective-2: Effectively utilized water resources for economic and infrastructure sector to support promising regional economic growth*1					
2	Adjarala Hydropower Development Plan (147MW)	2-2	CEB	x	
	Tetetou Hydropower Development Plan	2-2	CEB		x
	PRODAT(Agropole Development Project in Togo) in Kara	2-2	MAEH	x	
	PRODAT(Agropole Development Project in Togo) in Oti	2-1	MAEH	x	
	Urban sanitation project in Togo-Phase II (PAUT-II)	2-3	MEAH	x	
Objective-3: Well-functioning Integrated Water Resources Management					
3	Implementation of IWRM national action plan	3-1	DRE	x	x

Source: Arranged by JICA Study Team based on information provided by relevant agencies
*1: The projects described in the agricultural sector and electricity supply sector in the present study are listed here.

29.7.6 Profiles of Priority Projects for Water Resources of Togo

Among the programmes and projects listed in Table 29.7.4, the ones which are considered to be urgent or strategically important are preliminarily selected as priority projects as shown below.

(1) Sogakope - Lomé Transboundary Drinking Water Supply Project

1) Rationale

This project is in line with the Strategy 1a-1: Implementation of planned new water source provided from Volta River (Ghana).

There is a fruitful and stable volume of water in Votla River for further usage. This project is to utilize the water in Votla River to provide the municipal water for the towns in Ghana along the conveyance pipeline as well as for Lomé in Togo.

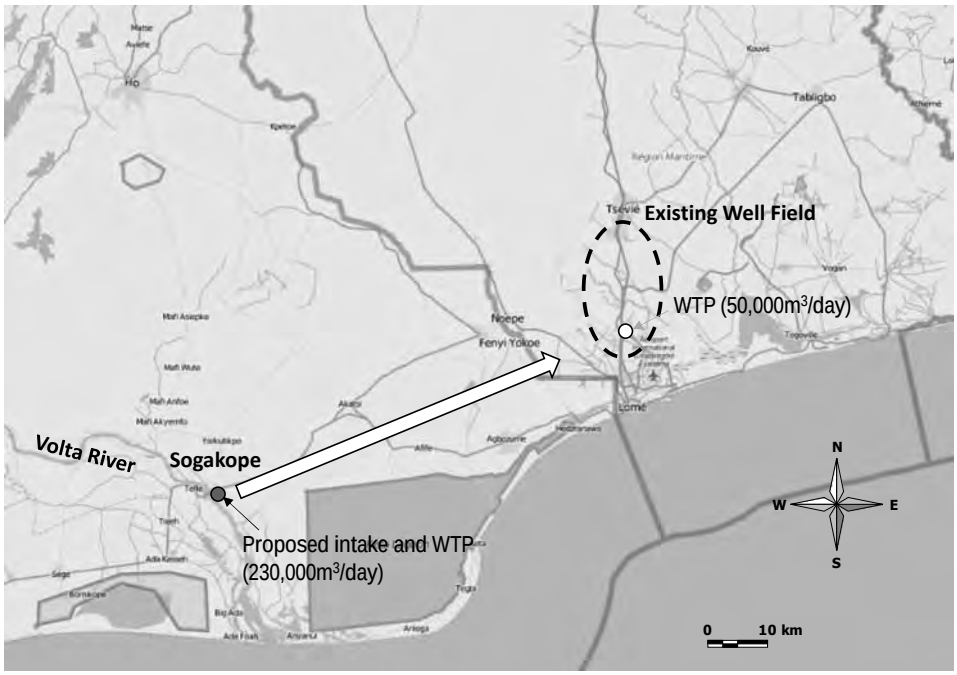
2) Objective

- To secure an adequate water source in the mid-term (targeting at around 2025) for municipal water supply for Lomé

3) Project Description

The project descriptions are as below.

- Construction of intake, Water Treatment Plant (WTP) (230,000m³/day) at Sogakope in Volta River and conveyance pipeline.
- The project is considered to be implemented by a PPP scheme.



Source: Prepared by JICA Study Team based on information provided by SP-EAU

Figure 29.7.1 Project Location for Sogakope - Lomé Transboundary Drinking Water Supply Project

4) Expected Benefits

The following impacts and benefits are expected in this project:

- Secured necessary water volume for urban water use in Lomé

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- GWCL/ SP-EAU

6) Estimated Project Cost

US$ 110milion

7) Remarks

The feasibility study is on-going under the support of AfDB.

(2) Study for New Water Source Development including Zio Dam and Conveyance from Mono River for Lomé Water Scheme

1) Rationale

This project is in line with the Strategy 1a-2: Study and its implementation for new water source with long-term perspective considering multiple water sources such as Zio dam and conveyance from Mono River.

It is expected that the municipal water for Lomé will be supplied from Volta River through the Sogakope - Lomé Transboundary Drinking Water Supply Project. However, its source depends on trans-boundary conveyance. In the long-term point of view, it could be advisable to maintain multiple water sources for Lomé provided from within the internal territory of Togo. This project is to study possible future options for water sources within the territory of Togo.

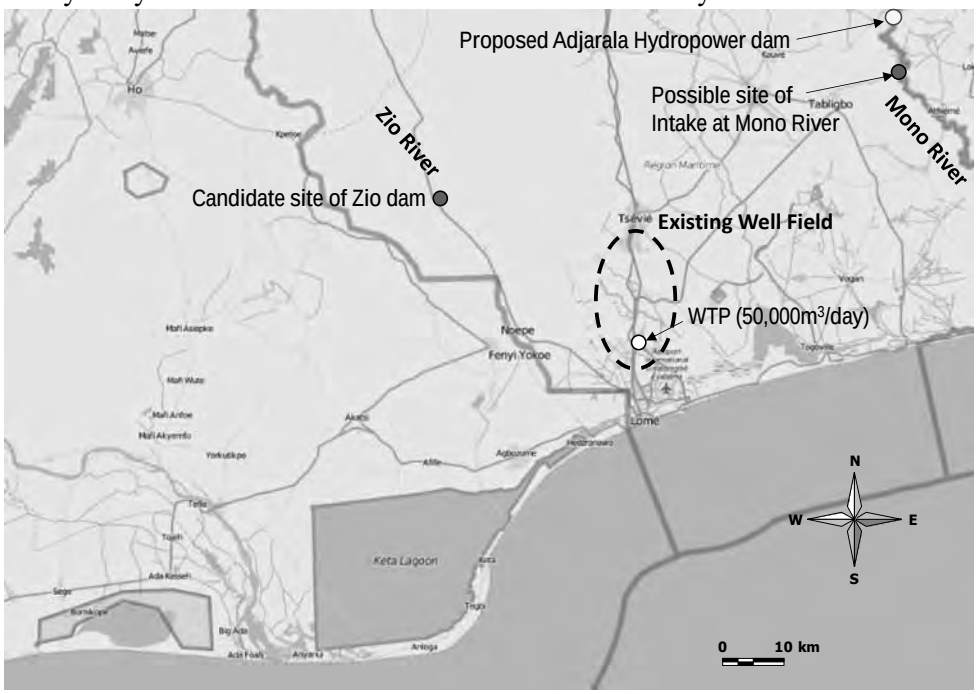
2) Objective

- To secure an adequate water source in the long-term (targeting at around 2040) for municipal water supply for Lomé

3) Project Description

The project descriptions are as below.

- Feasibility study on candidate dam sites in Zio River and conveyance from Mono River



Source: Prepared by JICA Study Team based on information provided by SP-EAU

Figure 29.7.2 Project Location for Study for New Water Source Development including Zio Dam and Conveyance from Mono River for Lomé Water Scheme

4) Expected Benefits

The following impacts and benefits are expected in this project:

- Secured necessary water volume for urban water use in Lomé

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- SP-EAU

6) Estimated Project Cost

Not available

7) Remarks

There is a study that was conducted in 1991 which could need an update considering the current situation.

(3) Project for Expansion of Water Treatment Plant at Kozah Dam for Kara

1) Rationale

This project is in line with the Strategy 1b-1: Effective use of existing Kozah dam

The current total capacity of WTP at the Kozah dam is about 9,000m^3/day. It is said that the possible volume of abstraction for domestic water supply from the Kozah dam would be 18,000 m^3/day in total if its reservoir is properly managed.

2) Objective

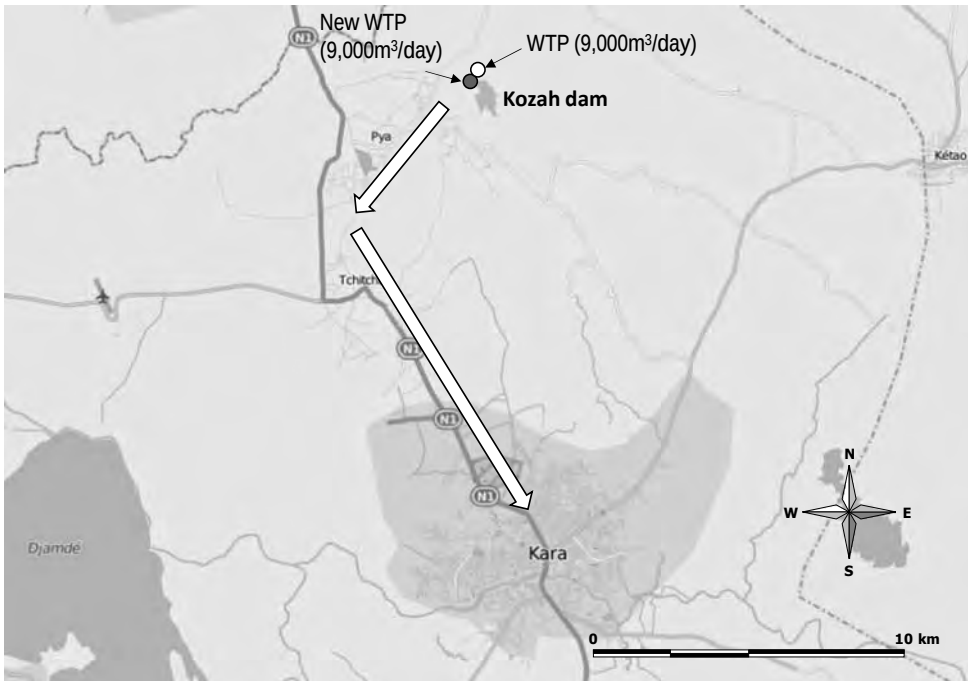
- To secure an adequate water source in the mid-term (targeting at around 2025) for municipal

water supply for Kara and surrounding area

3) Project Description

The project descriptions are as below.

- Expansion of WTP (9,000m^3/day) in Kozah Dam



Source: Prepared by JICA Study Team based on information provided by SP-EAU

Figure 29.7.3 Project Location for Expansion of WTP in Kozah Dam

4) Expected Benefits

The following impacts and benefits are expected in this project:

- Secured necessary water volume for urban water use in Kara and surrounding area

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- SP-EAU

6) Estimated Project Cost

Not available

7) Remarks

The study at F/S level was completed in 2000.

(4) Preparation of IWRM Plans for All River Basins in Togo

1) Rationale

This project is in line with the Strategy 3-1: Preparation of IWRM plans for all river basins in Togo.

It is necessary to properly coordinate several kinds of water use by preparing and implementing IWRM plans at the basin level. In Togo, no IWRM plans for the three river basins in the country have been prepared yet. All river basins should have an IWRM plan.

2) Objective

- Proper management of water resources at basin level

3) Project Description

The project descriptions are as below.

- Preparation of the IWRM plan for Lake Togo, Mono and Oti river basins

4) Expected Benefits

The following impacts and benefits are expected in this project:

- Proper management of water resources at basin level in Togo

5) Executing Agency and Related Institution

Expected executing agencies and related institutions for this project are listed below.

- DRE

6) Estimated Project Cost

Not available

7) Remarks

This is one of the activities in the IWRM action plan.

Chapter 30 Urban Development Strategies for Togo

30.1 Urban Development in Togo

30.1.1 Present Situation on Urban Development in Togo

In 2010, approximately 38% of the national population in Togo lived in urban areas.

Table 30.1.1 Urban Population in Togo

Year	Total Population	Urban Population	Share of Urban Population
2010	6,191,155	2,334,495	37.7%

Source: Bureau Central du Recensement, 2011, Recensement General de la Population et de l'Habitat

30.1.2 Hierarchy of Urban Centres in Togo

The territorial division in Togo consists of municipalities, prefectures and regions. Article 2 of Law No. 2007-011 of 13 March 2007 provides that: "The national territory is divided into local authorities, each of which possesses legal status and financial autonomy. The local authorities are at the following three levels:

- Municipalities
- Prefectures
- Regions

In Togo, there are 21 urban municipalities, 333 rural municipalities, 30 prefectural councils, and 5 regional councils. The municipality of Lomé has a particular status with urban subdivisions (arrondissements) that enjoy autonomy of management and are administered by urban subdivision mayors, who are also deputies to the Mayor of the city of Lomé.

All of these constituencies are local authorities and administrative constituencies of state authorities. The municipality is only the headquarters of a local authority. For the municipalities there is a distinction between rural and urban municipalities. Urban municipalities are made up of urban subdivisions and are home to the prefectures. The 1998 Law bringing decentralization to Togo used this division to decide on the number of local authorities.

The seven largest urban centres of Togo each with a population of over 50,000 inhabitants as of 2010 are Greater Lomé, Sokodé , Kara , Kpalimé , Atakpamé , Tsévié and Dapaong.

In the absence of a national territorial development plan, regional capitals are broadly expected to play a major role in promoting regional economic development, in addition to their administrative functions.

30.1.3 Review of Urban Development Plans for Togo

At the city level, most regional capitals have already prepared their master plans to guide both their physical and economic expansions. However, many of the existing plans are already outdated (i.e. Lomé 1981, Sokodé 2001) and need to be revised. Accordingly, several cities have started or just finished the revision process of their master plans, such as the city of Blitta (2014), the city of Sotouboua (2011), and the city of Tsevié in Zio prefecture (2011). Similarly, the Greater Lomé area,

which includes the capital and its surrounding cantons, is currently preparing its urban master plan (SDAU: *Schéma Directeur d'Aménagement et d'Urbanisme*).

Urban centres selected for special attention in corridor development due to their current urban size are the six urban centres, which are along the primary international corridors, namely Greater Lomé, Kara, Sokodé, Atakpamé, Dapaong and Tsevié. In consideration of the corridor development strategies, the following functions for major urban centres in Togo are designated for the future:

- Greater Lomé : First-class international city for business and administration centre
- Kara: National centre for business, industry including agro processing and commerce
- Sokodé: Regional growth pole with agro processing industry base and service centre for central Togo
- Atakpamé: Regional growth pole with agro processing industry base and service centre for southern Togo
- Dapaong: Regional growth pole with agro processing industry base and service centre for northern Togo
- Tsevié: New gate way city to Togo with airport city and logistics centre

30.1.4 Future Urban Population Framework for Togo

Once the physical integration starts the urbanization will occur rapidly in Lomé. It is projected that the population of Greater Lomé will reach almost 5 million by 2040.

Sokodé, Kara and Atakpamé are expected to grow to reach a population of approximately 300 thousand by 2040, which is approximately four times larger than the current population.

Table 30.1.2 Future Populations of Major Urban Centres in Togo

Region		2010	2015	2025	2033	2040	Increase 2015-2040
Greater Lomé	Population	1,571,508	1,949,591	2,915,686	3,908,998	4,970,417	3,020,826
	Annual Growth Rate		4.41%	4.11%	3.73%	3.49%	3.81%
Sokodé	Population	95,070	118,840	184,205	258,436	343,427	224,587
	Annual Growth Rate		4.56%	4.48%	4.32%	4.15%	4.34%
Kara	Population	94,878	116,562	177,834	249,618	333,840	217,278
	Annual Growth Rate		4.20%	4.31%	4.33%	4.24%	4.30%
Atakpamé	Population	69,261	87,926	141,609	206,039	283,554	195,628
	Annual Growth Rate		4.89%	4.88%	4.80%	4.67%	4.80%
Dapaong	Population	58,071	71,717	107,871	147,291	191,064	119,347
	Annual Growth Rate		4.31%	4.17%	3.97%	3.79%	4.00%
Tsévié	Population	54,474	61,786	80,407	96,699	111,715	49,929
	Annual Growth Rate		2.75%	2.68%	2.33%	2.08%	2.40%

Source: JICA Study Team based on computations of data provided by the Directorate General of Statistics and National Accounting

30.1.5 Issues on Urban Development in Togo

With relation to the corridor development the following are recognized as issues or constraints for urban development in Togo.

- Marked imbalances between the urban and rural situation
- Overconcentration on Lomé the capital at the expenses of second and third tier cities along the North-South Corridor highlighted in poor urban settings, insufficient economic activities and job opportunities
- Insufficient services and institutions provision (hospitals, universities, etc.) at the level of second tier cities
- Inadequate infrastructure
- Declining and poorly structured urban centres
- Problems related to land tenure and the right to land property and housing

30.1.6 Overall Objectives for Urban Development for Togo

The overall objectives for urban development of Togo are presented as follows:

- To prepare urban centres for leading roles in terms of economic development
- To upgrade the functions of major urban centres so that they can plan their expected roles
- To build on the advantages of prospective transport corridor development in order to weave better connections between urban centres and rural areas
- To mitigate negative impacts to be caused by transport corridor development

30.1.7 Strategies for Urban Development for Togo

In order to accomplish the overall objectives for urban development, and in anticipation of the impacts and opportunities generated by the prospective transport corridor project, it is important to review the SDAU of each urban centre taking into consideration the following:

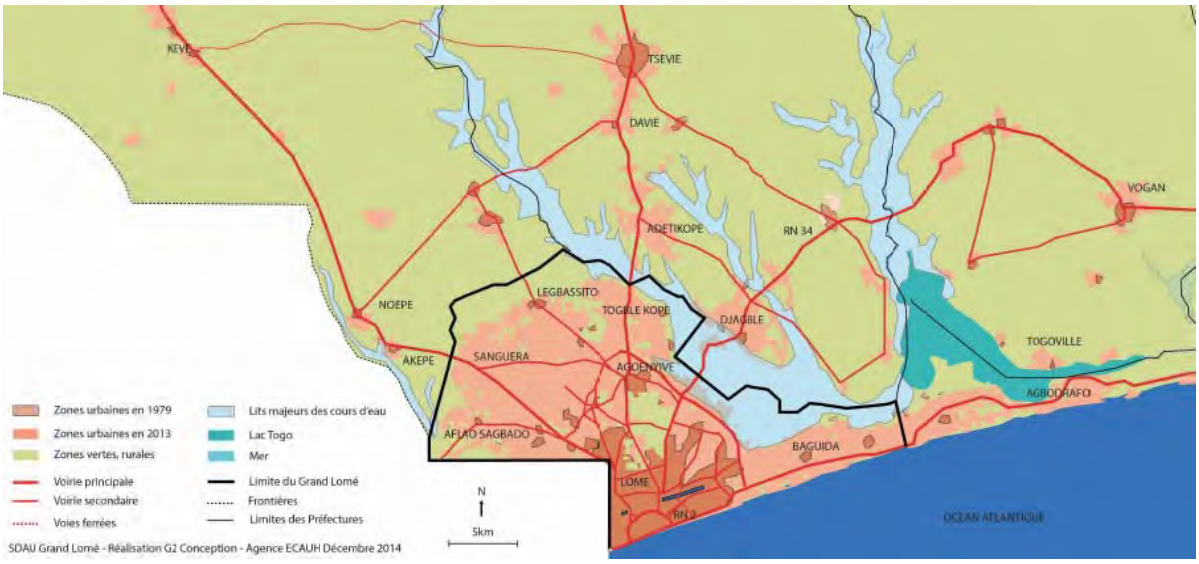
- Transformation of urban structure for accommodating further development in relation to corridor development
- Infrastructure development and urban upgrading by taking into consideration development of potential economic sectors in major urban centres
- Construction of ring roads or bypass roads not only to avoid congestion in respective city centres, but also to open up land for economic sector development.

30.2 Urban Development Strategies for Greater Lomé

30.2.1 Present Situation of Greater Lomé

(1) Urban Expansion of Greater Lomé

Since 1979 the Greater Lomé urban area has witnessed a continued sprawl as shown in Figure 30.2.1. These were mainly along the coastal corridor along National Road No.2 and towards the north along National Road No.1. The expansion was also prominent along National Road No.5 and Noepé and equally along National Road No. 34 till Djagblé where even the existing water bodies could not limit this pronounced urban sprawl.

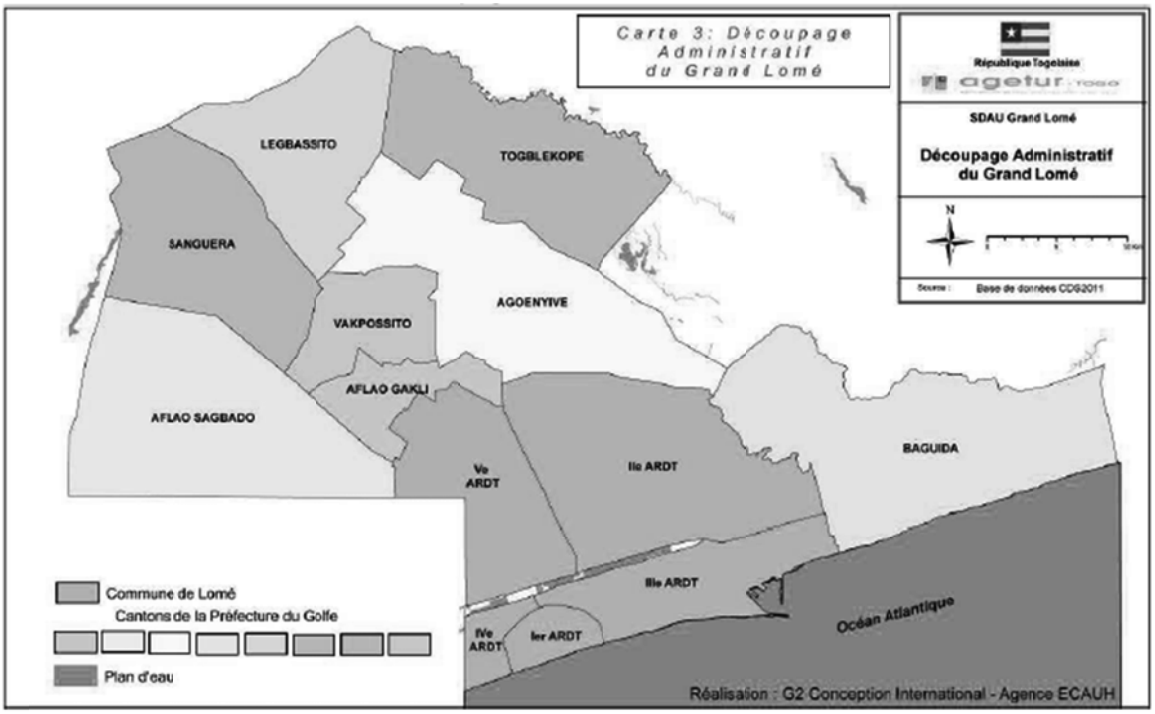


Source: Agence ECAUH, Schéma Directeur d'Aménagement et d'Urbanisme du Grand Lomé. Phase II "Analyze Prospective", G2 Conception International

Figure 30.2.1 Urban Growth of Greater Lomé between the Years 1979 and 2013

(2) Demography of Greater Lomé

The Greater Lomé consists of the Lomé Commune with its 5 districts that represent the capital area of Togo in addition to the eight surrounding cantons of Aflao Gakli, Aflao Sagbado, Agoenyive, Baguida, Legbassito, Sanguera, Togblekopé and Vakpossito in Golfe Prefecture.



Source: Schéma Directeur d'Aménagement et d'Urbanisme du Grand Lomé Phase II "Analyze Prospective", G2 Conception International / Agence ECAUH

Figure 30.2.2 Administrative Boundaries of Greater Lomé

Lomé the capital and its metropolitan area have experienced a large population growth between 1981 and 2010 increasing with annual growth rate of over 4% for almost three decades.

Table 30.2.1 Population of Greater Lomé (1981 and 2010)

	Entities	Population		Annual Growth Rate (%)	Area (km^2)	Population Density 2010 (persons/km^2)
		1981	2010			
Lomé Commune	1st District	375,499	25,876	2.81%	90	9,329
	2nd District		348,876			
	3rd District		187,573			
	4th District		60,031			
	5th District		217,210			
Golfe Prefecture	Aflao Gakli	72,307	81,711	8.31%	255	2,870
	Aflao Sagbado		108,857			
	Agoènyivé		258,389			
	Amoutive		24,613			
	Baguida		117,350			
	Legbassito		29,348			
	Sanguera		38,349			
	Togblekopé		46,310			
	Vakpossito		27,015			
	Greater Lomé	447,806	1,571,508	4.42%	345	4,555

Source: Direction Générale de la Statistique et de la Compatibilité Nationale RGPH 1981, 2010

(3) Existing Urban Master Plan

The City Development Strategy (CDS) was made ready by 2012. It aims to provide the capital, Lomé with a long-term development vision for the horizon 2030 based on a coordination process that includes a larger geographic space shared by the Lomé Commune, and its surrounding cantons. Moreover, the Greater Lomé CDS is coupled with a priority to reduce urban poverty.

The shared vision for Greater Lomé which has been adopted by the CDS is set as follows: "*By 2030, the Greater Lomé will be a modern urban community, healthy, attractive, underpinned with a strong local government, a transit centre, a competitive pole of development in West Africa and with a better structured agglomeration where the citizen is well satisfied*"

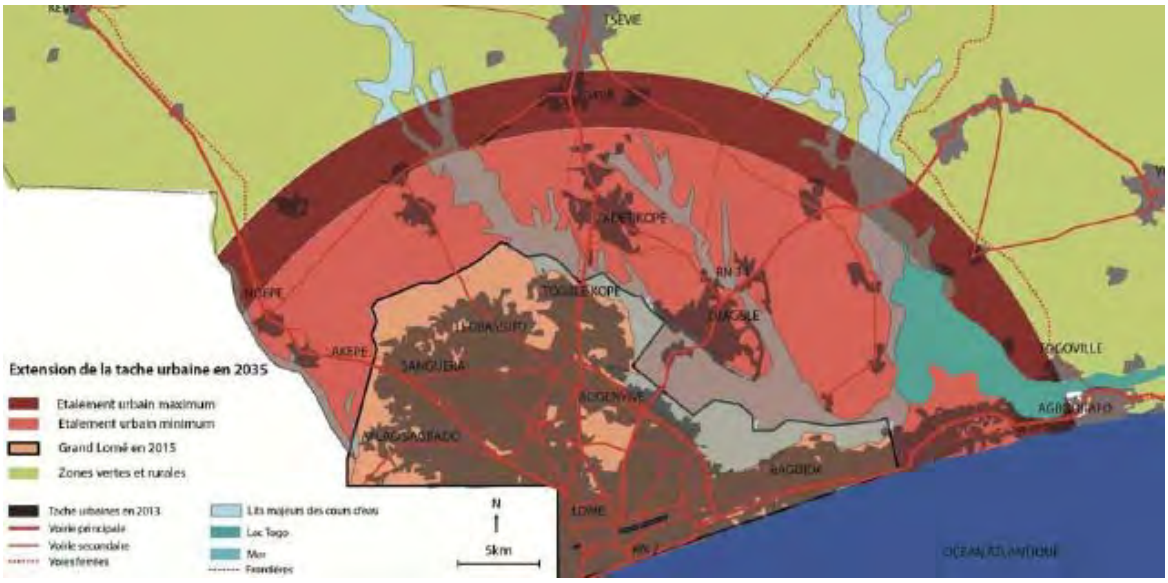
Accordingly, the CDS has prepared an emergency programme prioritizing fifteen major projects and actions to be implemented urgently including "Developing of the Master Plan of Greater Lomé."

During the formulation of the Master Plan of Greater Lomé, several development scenarios were discussed and evaluated concerning the future spatial structure of Greater Lomé.

The first scenario proposes a maximum growth boundary covering 993.3 km^2 which can absorb the urban extension based on a constant density similar to the one already witnessed in 2010 (4,248 inhabitants/km^2). (See Figure 30.2.3)

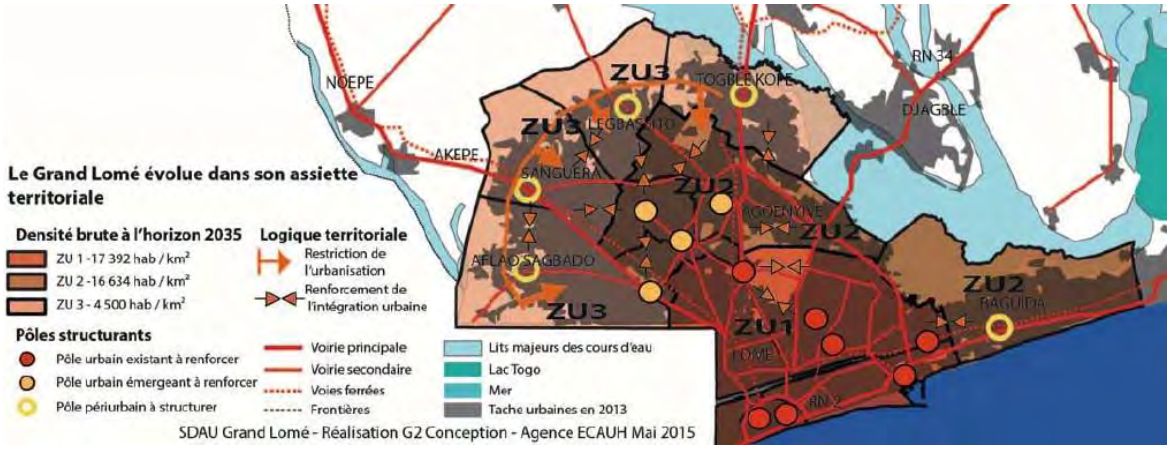
The second scenario proposes to contain the urban growth within the boundaries of Greater Lomé. Accordingly, different urban densities are assigned to different zones in order to achieve such scenario. (See Figure 30.2.4)

The third scenario proposes to densify the Greater Lomé while at the same time it suggests to include the larger metropolitan area based on a polycentric development which leaves space for an important green belt in addition to certain agriculture areas. (See Figure 30.2.5)



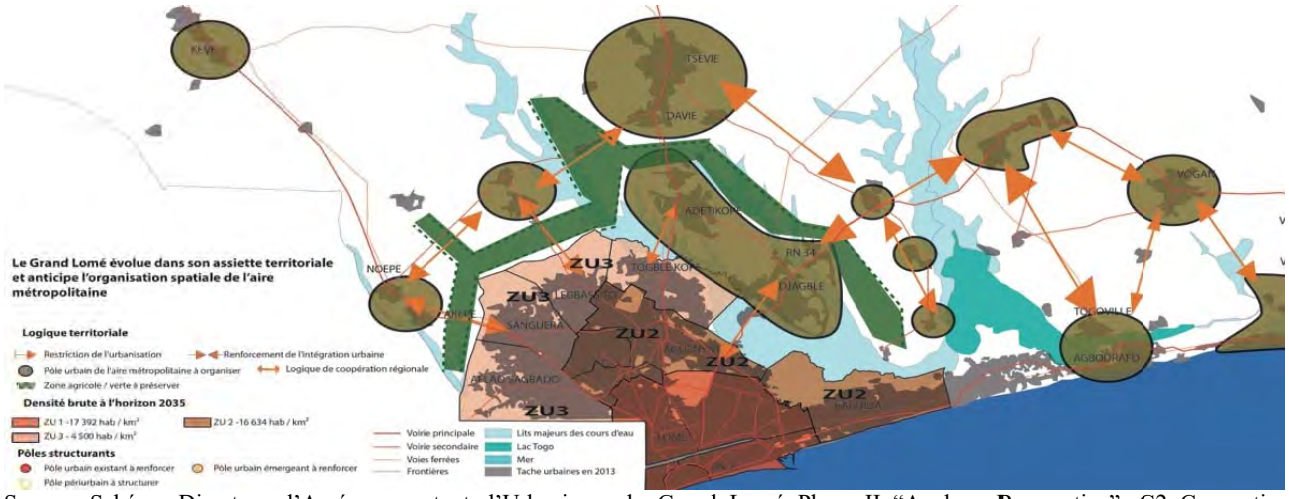
Source: Schéma Directeur d'Aménagement et d'Urbanisme du Grand Lomé Phase II "Analyze Prospective", G2 Conception International / Agence ECAUH

Figure 30.2.3 Proposed Spatial Development Scenario-1 for the Greater Lomé Area



Source: Schéma Directeur d'Aménagement et d'Urbanisme du Grand Lomé Phase II "Analyze Prospective", G2 Conception International / Agence ECAUH

Figure 30.2.4 Proposed Spatial Development Scenario-2 for the Greater Lomé Area



Source: Schéma Directeur d'Aménagement et d'Urbanisme du Grand Lomé Phase II "Analyze Prospective", G2 Conception International / Agence ECAUH

Figure 30.2.5 Proposed Spatial Development Scenario-3 for the Greater Lomé Area

30.2.2 Future Prospects for Greater Lomé

Greater Lomé area is geared to play a major role at both the sub-regional and national levels in spearheading economic growth and urban development. Indeed, due to its strategic location along the Abidjan-Lagos coastal corridor, in addition to its growing role as a major gateway to the landlocked countries to the north, the greater Lomé area can rely on an already performant port and its regional airport hub to sustain its position as a major player in the West African region thus attracting further foreign direct investments.

In such circumstances, the prospective Greater Lomé urban development plan should incorporate these recent structural changes, and furthermore, take into account the possible economic and physical impacts of regional integration, especially those related to the recent developments in the adjacent Ghanaian urban areas across the border, particularly in Aflao. Accordingly, the diagnostic report related to the Greater Lomé master plan has identified a list of potential projects to be implemented on the short and medium terms and by the horizon 2030. These include the expansion of the outer ring road that connects to Noepé at the Ghanaian border, the new Lomé international airport, and the expansion of Lomé Container Terminal, in addition to several road and logistics infrastructure projects, as well as social housing projects, environment related projects and social and public services.

30.2.3 Issues on Urban Development of Greater Lomé

The following issues are defined regarding the urban development of Greater Lomé:

- Fast population growth causing leapfrogging urban sprawl
- Inadequate road infrastructure
- Commuter rush hour congestion caused by lack of good urban road network and public transport
- Environmental threats related to flooding, inadequate drainage systems and inappropriate solid waste management.
- Limited industrial parks available

30.2.4 Objectives for Urban Development of Greater Lomé

The following objectives are set for the urban development of Greater Lomé:

- To make maximum use of the potential of Greater Lomé as the national capital and

sub-regional gateway city in relation to the corridor developments

- To promote the Greater Lomé area as a modern city not only for a business and administration centre but also for industrial production
- To manage urban growth and address the pressure of population increase and the loss of strategic land reserves around the city
- To organize and reorient future developments along the coastal corridor, especially that in the hinterland where towns such as Tsevié and Noepé are also at the same time experiencing substantial spatial changes which need to be accommodated within a larger metropolitan logic
- To address economic activity concentration and transport congestion in the city centre and around the port area
- To develop necessary high-standard economic infrastructures and facilities, as well as high-standard social services, and recreational facilities, in order to make Greater Lomé an attractive competitive city in the West African sub-region.

30.2.5 Strategies for Urban Development of Greater Lomé

The following are the strategies for urban development of Greater Lomé:

- To make full use of the existing International Airport
- To upgrade roads and railways for responding to the planned upgrading of the cargo handling capacity of Lomé Port
- To strengthen and upgrade business functions within Greater Lomé in relation to the Lomé Port
- To construct an Outer Ring Road not only for managing urban and through traffic but also future urban land expansion
- To construct an east-west motorway as part of the Abidjan-Accra-Lomé-Lagos Motorway
- To prepare necessary plans in a timely manner to secure lands for future urban expansion and the development of new industrial and activity zones
- To implement the development of necessary urban road networks to ease the traffic pressure caused by motorization, population increase and development of transport corridors
- To implement necessary improvement and upgrading of public transportation for securing high urban mobility but also inter-city mobility for the poor and middle-income groups of people
- To provide enough electricity and water for the inhabitants and industries of Greater Lomé
- To provide necessary residential areas for the future population by redeveloping areas within the city centre
- To manage existing environmental risks related to floods and inadequate drainage networks
- To provide better public services, such as advanced medical facilities and laboratories, and sophisticated recreation and cultural facilities to attract business persons and enterprises.

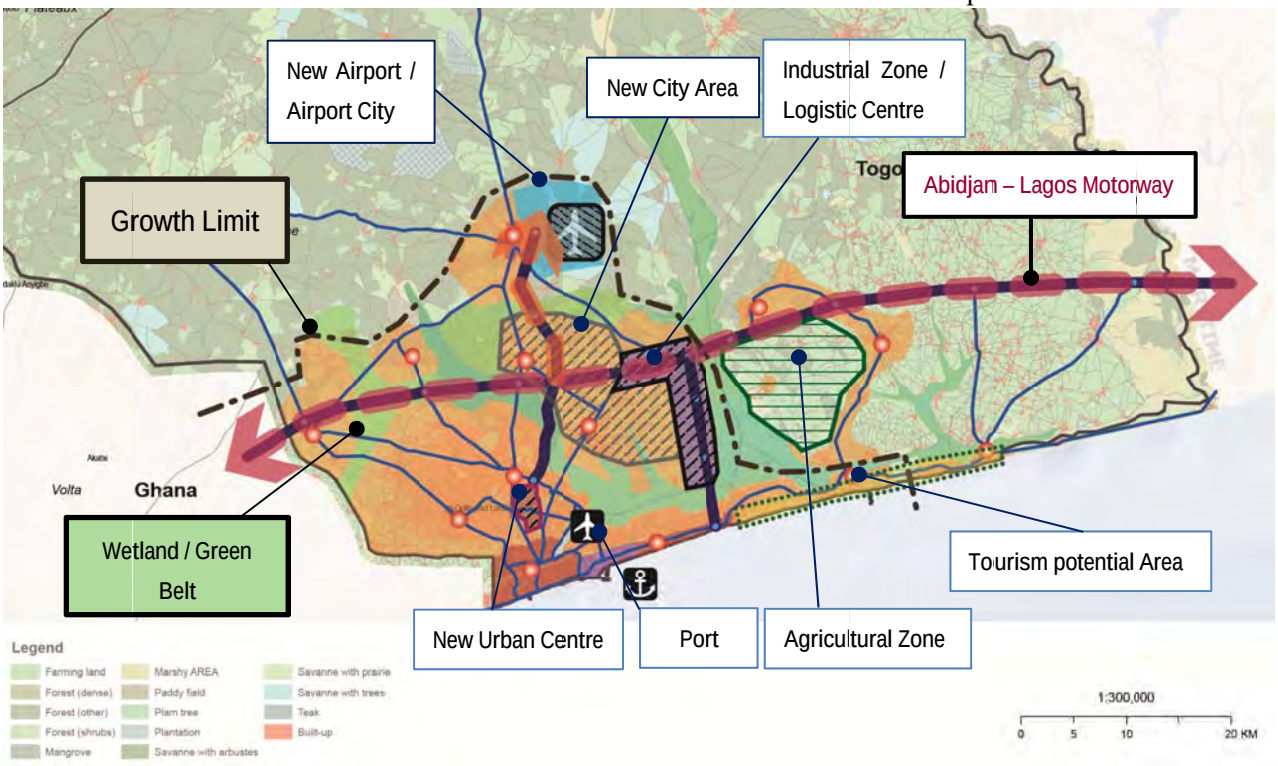
30.2.6 Conceptual Spatial Structure for Greater Lomé

JICA Study Team is proposing an additional future spatial development alternative (Figure 30.2.6) taking into account the prospective changes which will be induced by the implementation of the coastal sub-regional corridor Abidjan-Lagos.

WAGRIC Master Plan prepared spatial concepts for the coastal metropolitans by conducting preliminary analyses on the following points:

- Where to put an east-west motorway, as part of the Abidjan-Lagos Corridor Motorway, in each coastal metropolitan
- How to secure the connectivity between north-south corridors and coastal corridor within each of the coastal metropolitan

- How to secure a strong access to strategic sea ports which have plans for expansion within coastal metropolitans
- How to get access to new international airports planned within each of the coastal metropolitans
- Where to locate new industrial zones within each of the coastal metropolitans



Source: JICA Study Team Proposal Based on a Sub-Regional Corridor Development Scenario

Figure 30.2.6 Proposed Spatial Structure for the Greater Lomé in the Context of a Sub-Regional Corridor Development Scenario

30.2.7 Programmes and Projects for Greater Lomé's Urban Development related to Corridor Development

In terms of outlook, the following infrastructure projects are planned: the extension of the outer ring road which connects to Noepé on the border with Ghana; the new planned Tsévié International Airport; extending Niamtougou Airport, and the extension of Lomé Container Terminal.

The following projects must be programmed:

- Revision of the Master Plan for Greater Lomé area, to accommodate a sub-regional development scenario, taking into account the extents and impacts of the WAGRIC project on both the national and sub-regional scale. Accordingly, the potential needs in terms of industrial and economic activity zones, the logistics sector, tertiary sector development, etc. need to be taken into account.
- Construction of Outer Ring Road for Greater Lomé
- Formulation of a detailed master plan for Lomé Port area
- Formulation of a master plan for the coastal area aimed at addressing future growth scenarios, tourism activities and coastal area protection
- Upgrading the drainage network of Greater Lomé
- Construction of a waste water treatment plant for Greater Lomé
- Formulation of a master plan for solid waste collection and treatment for Greater Lomé

30.3 Urban Development Strategies for Tsévié

30.3.1 Present Situation of Tsévié

(1) Urban Expansion of Tsévié

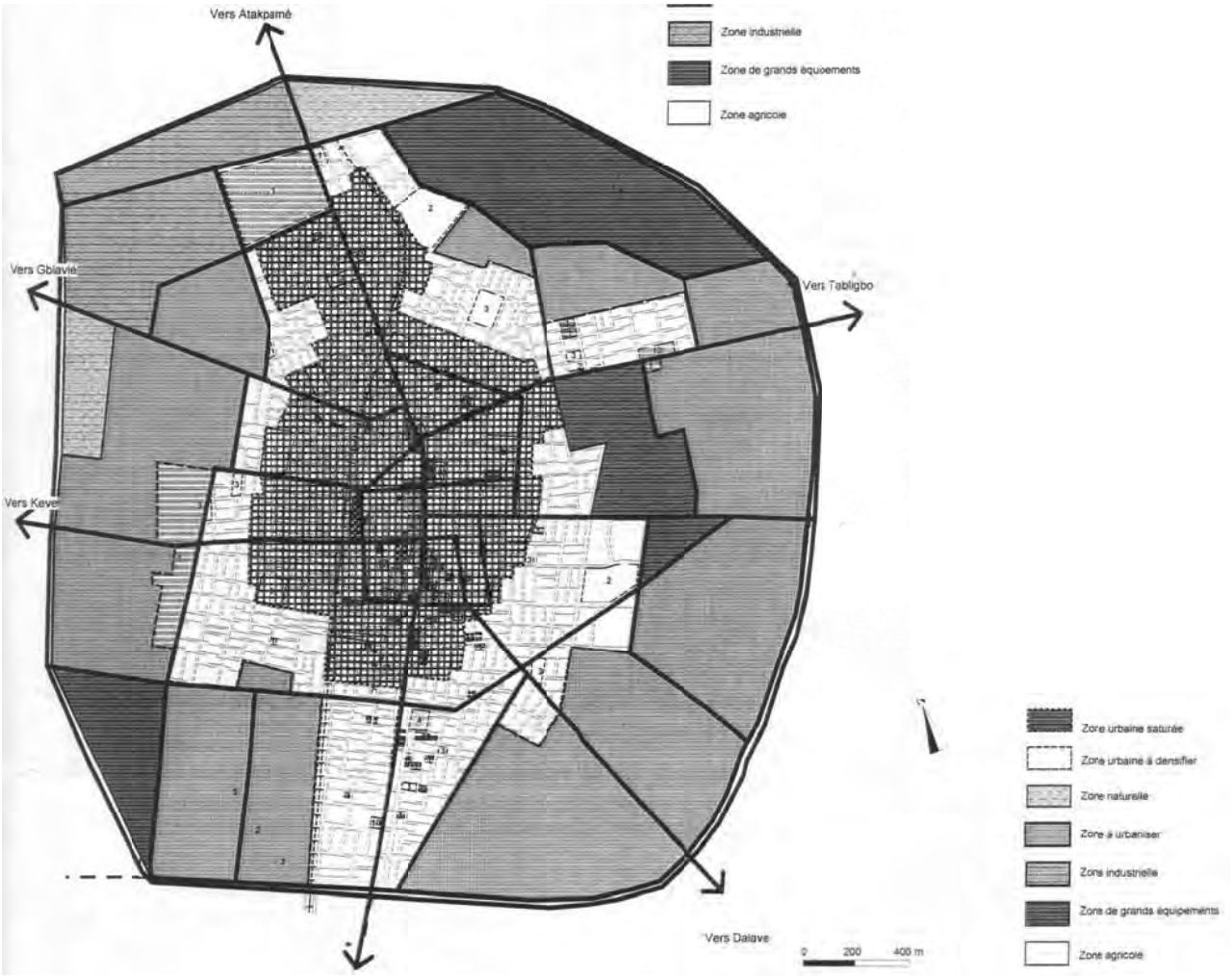
The Master Plan of Tsévié has been updated in 2011. The city which is the capital of the Maritime Region has recently experienced increasing urban pressure leading to substantial changes in its spatial structure mainly due to its proximity to the capital (35 km) and its spill over effects.

(2) Demography of Tsévié

The population of Tsévié was 54,500 inhabitants in 2010.

(3) Existing Urban Master Plan

The spatial structure and road network for Tsévié which were proposed by the newly updated master plan are shown in Figure 30.3.1.



Source: SDAU of Tsévié 2011

Figure 30.3.1 Spatial Structure of Tsévié (SDAU 2011)

30.3.2 Future Prospects for Tsévié

Tsévié is strategically located at a crossroads along the national road1 that crosses the country from South to North linking Lomé port to Ouagadougou, and is also connected to Davié to the South, Glabvié and Kévé to the East, and to Tabligbo to the west and Dalavé to the South-West. The city is preparing to host the new Lomé airport while the new highway section linking Lomé to Cinkasé has already been built until the city's southern entrance. Another structural feature of Tsévié is the outer

ring road that is planned to divert through-traffic to the peripheries of the city and constitutes its urban growth limit. Accordingly, it is important to take into account the prospective spatial and demographic transformations related mainly to the development of the new airport city in Tsévié and to review the master plan of the city to anticipate such changes.

30.3.3 Issues on Urban Development of Tsévié

The following issues are defined regarding the urban development of Tsévié:

- Steady population growth causing low density urban sprawl
- Environmental threats related to inadequate drainage systems and inappropriate solid waste management.
- Ill defined vision and role in relation to future development prospects.

30.3.4 Objectives for Urban Development of Tsévié

The following objectives need to be considered for the urban development of Tsévié:

- To envision a new role for Tsévié based on the future development of the new airport and the airport city.
- To make maximum use of the potential development of the new airport and the airport city of Tsévié.
- To manage urban growth and address the pressure of population increase and the loss of strategic land reserves around the city.

30.3.5 Strategies for Urban Development of Tsévié

The following are the strategies for urban development of Tsévié:

- To develop an International Airport City for accommodating increasing population and economic activities by formulating a master plan for the Airport City and by providing necessary infrastructures.
- To upgrade the existing railway connecting Lomé to Tsévié and to upgrade the existing railway station.
- To plan a future rail link to the new airport area
- To strengthen and upgrade business functions within the City in relation to the new airport
- To construct an Outer Ring Road for managing urban and through traffic
- To implement necessary improvement and upgrading of public transportation for securing high urban mobility but also inter-city mobility for the poor and middle-income groups of people
- To provide necessary residential areas for the future population
- To prepare facilities, such as advanced medical facilities and laboratories, and sophisticated recreation and cultural facilities to attract business person and enterprise
- To prepare a master plan for drainage and solid waste treatment

30.3.6 Programmes and Projects for Tsévié's Urban Development related to Corridor Development

The following is an additional list of priority projects that should be developed within Tsévié in an effort to complement the development of the WAGRIC project. Other priority projects have been highlighted and detailed at the beginning of this chapter and in different sections of this manuscript relating to specific sectors. In that sense, only the first project of the list will be treated in detail as it has not been specifically touched upon in terms of prioritizing the construction of specific sections at an earlier stage.

- Construction of Outer Ring Road for Tsévié and Davié
- Updating of the Spatial Development Framework and Structure Plan for Tsévié, taking into account the potential needs in terms of industrial and economic activity zones, logistics sector, tertiary sector development, etc.
- Formulation of Master Plan for the Airport City of Tsévié and its Surrounding Areas
- Rehabilitation of the railway station of Tsévié
- Upgrading the drainage network of Tsévié
- Formulation of a master plan for solid waste collection and treatment for Tsévié.

(1) Construction of the Outer Ring Road for Tsévié and Davié

1) Rationale

Tsévié and its neighboring town Davié, have become a gateway to Greater Lomé area, and play a major role in terms of attracting major economic infrastructures such as the new Tsévié airport in addition to becoming a prime settlement choice for young families. The conurbation is therefore expected to draw a substantial volume of traffic demand. In anticipation it is important to construct an outer ring road that defines the conurbation growth limits, and most importantly helps deviating through traffic while serving strategically positioned economic infrastructures such as the new Airport. City of Tsévié

2) Objective

- To avoid unnecessary through traffic leading to aggravated congestion
- To facilitate access to major sectors of the city and avoid traffic congestion
- To serve existing economic infrastructures such as the new Tsévié airport.
- To define and expand the urban growth limits of Tsévié and Davié
- To enable high-speed travelling of motor cars and trucks on the international transport corridor.

3) Project Description and Phasing

The project description and phasing are provided below.

- To review existing right-of-ways of bypass roads and outer ring roads proposed in the master plan of Tsévié and propose the best connections to the Lomé-Ouagadougou corridor
- To secure necessary land for the future implementation of such infrastructure projects
- To reshape the spatial structure along the outer ring road.

In an effort to reduce cost and at the same time achieve quick wins by serving the Lomé-Ouagadougou International Corridor passing through Tsévié and Davié, a specific part of the outer ring road has been designated as a priority to be constructed at the earliest stage of the project Implementation Figure 30.3.2. This specific section situated at the southwestern part of the city should therefore be given priority since it is relatively easier to implement as it passes at the outskirts of the conurbation far from urban areas. This part of the outer ring road helps achieving the different strategic objectives stated above.

4) Expected Benefits

The following impacts and benefits are expected in this project:

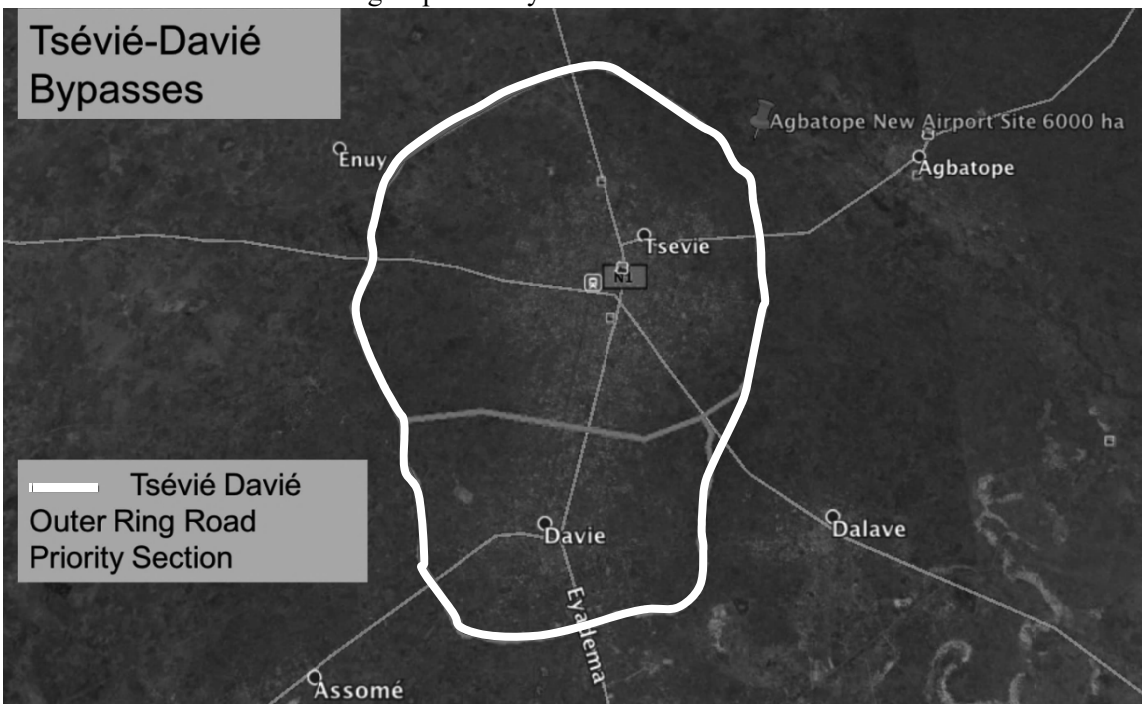
- Effective and efficient spatial development and deployment of economic sector activities along the bypass and outer ring road.
- Effective management of traffic flows along the Lomé-Ouagadougou transport corridor and within the targeted cities
- Facilitation of people and goods transportation
- Expansion of the urban areas of the targeted cities

5) Executing Agency and Related Institutions

- The Ministry of Public Works and Transports
- The Ministry of planning, housing and Quality of Life represented by AGETUR in cooperation with the regional and local administrations.

6) Related Projects

- Updating of the existing Master Plan of Davié and Tsévié
- Construction of Motorway between Lomé Bypass and New International Airport
- Construction of 4-Lane High-Speed Way between Tsévié and Notsé



Source: JICA Study Team Proposal, based on existing conditions on the ground, and the review of the proposed Tsévié outer ring road trace in SDAU of 2011

Figure 30.3.2 Proposed Location of Davié-Tsévié Outer Ring Road

30.4 Urban Development Strategies for Atakpamé

30.4.1 Present Situation of Atakpamé

(1) Urban Expansion of Atakpamé

The city is the capital of the Plateaux region, situated 160 km to the North of Lomé and is squeezed between hilly mountains with slopes reaching 20 to 40%. Due to the rugged terrain, urban expansion has followed a patchy track producing and irregular spatial structure with two different urban centres.

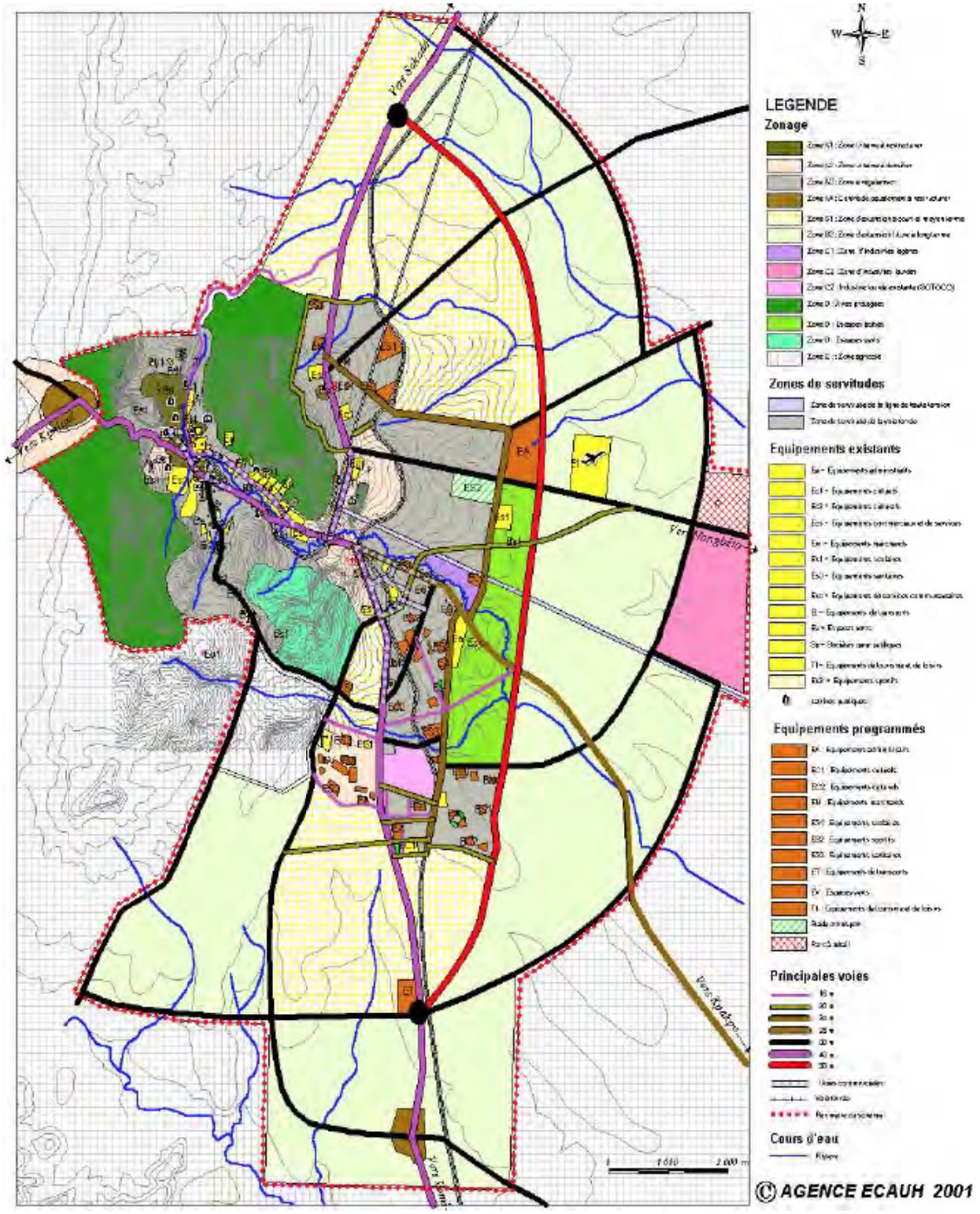
(2) Demography of Atakpamé

The population was estimated at 69,300 inhabitants in 2010.

(3) Existing Urban Master Plan

The Master Plan of Atakpamé has been prepared as early as 2001. Due to the rugged topography, the Master Plan has directed future urban extensions away from the mountainous areas towards the north-east, east, south and south-west of the city. The proposed urban extension is structured by a major 50 meters wide road that crosses the city from south to north avoiding at the same time the traditional centres. The road network is completed by a series of secondary service roads of 30 meters wide connecting major parts of the city to the main road structure. Moreover, the Master Plan has accommodated for different land uses including industrial, commercial, housing and public

services, not to forget the green and protected areas along the river banks and also covering some of the mountain areas.



Source: SDAU 2001

Figure 30.4.1 Proposed Master Plan of Atakpamé (SDAU 2001)

30.4.2 Future Prospects for Atakpamé

Due to its relatively close distance from the capital, and to its unique geographic and natural features, Atakpamé could be developed as a major touristic destination. Indeed, the Lomé-Ouagadougou Corridor could facilitate access to the city and activate its untapped potentials.

30.4.3 Issues on Urban Development of Atakpamé

- Rugged topography and sloppy terrain 20%-40% constraining urban expansion
- Ill defined urban centrality with two different centres competing for space
- Underdeveloped non-diversified economy relying on tourism and a mono-sector industry (cotton production)

30.4.4 Objectives for Urban Development of Atakpamé

The major objectives of the Master Plan of Atakpamé are stated as follows:

- To redefine urban centrality within the city
- To manage urban growth taking into account the difficult geographic conditions

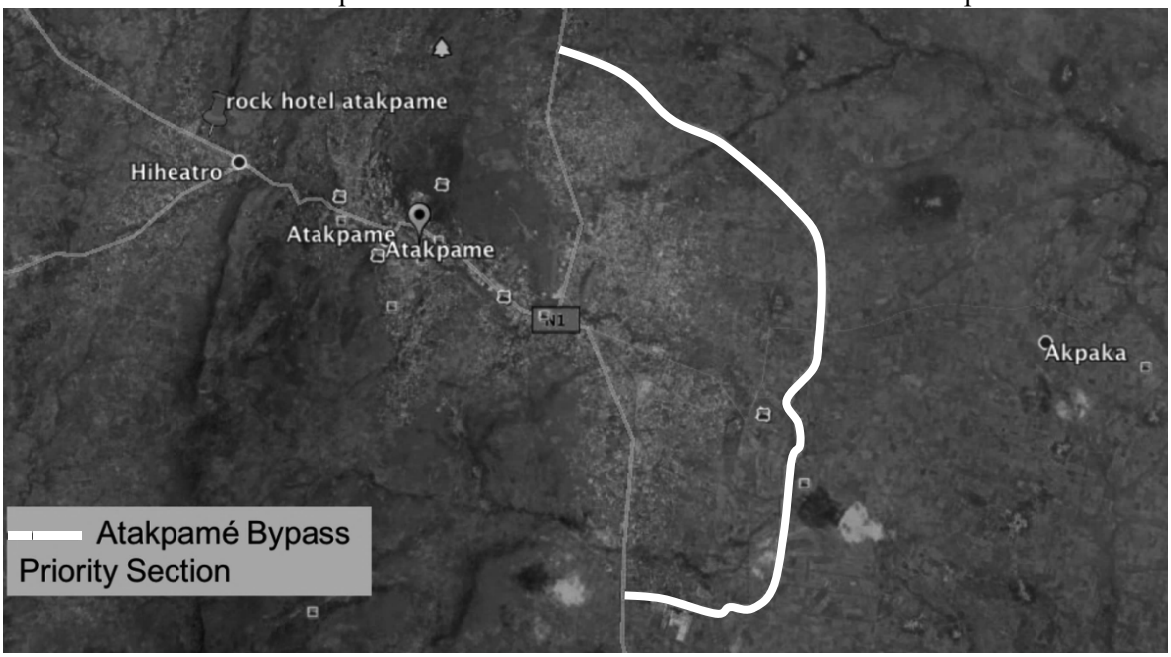
30.4.5 Strategies for Urban Development of Atakpamé

- To reorient the city's urban expansion towards flat terrains to the East and South –East
- To weave the peripheral neighbourhoods into the main urban structure of the city
- To take into consideration the emerging centre to the south of the city at the crossroads of RN1, RN5 and the railway
- To restructure the city centre

30.4.6 Programmes and Projects for Atakpamé's Urban Development related to Corridor Development

The following is an additional list of priority projects that should be developed within Atakpamé.

- Construction of a bypass road for Atakpamé
- Updating of the Spatial Development Framework and Structure Plan for Atakpamé, to help develop its inherent potentials in terms of ecotourism and agrotourism
- Upgrading the drainage network of Atakpamé
- Formulation of a master plan for solid waste collection and treatment for Atakpamé



Source: JICA Study Team based on existing conditions on the ground and the proposed Atakpamé bypass road in SDAU of 2001

Figure 30.4.2 Proposed Location of Atakpamé Bypass Road

30.5 Urban Development Strategies for Sokodé

30.5.1 Present Situation of Sokodé

(1) Urban Expansion of Sokodé

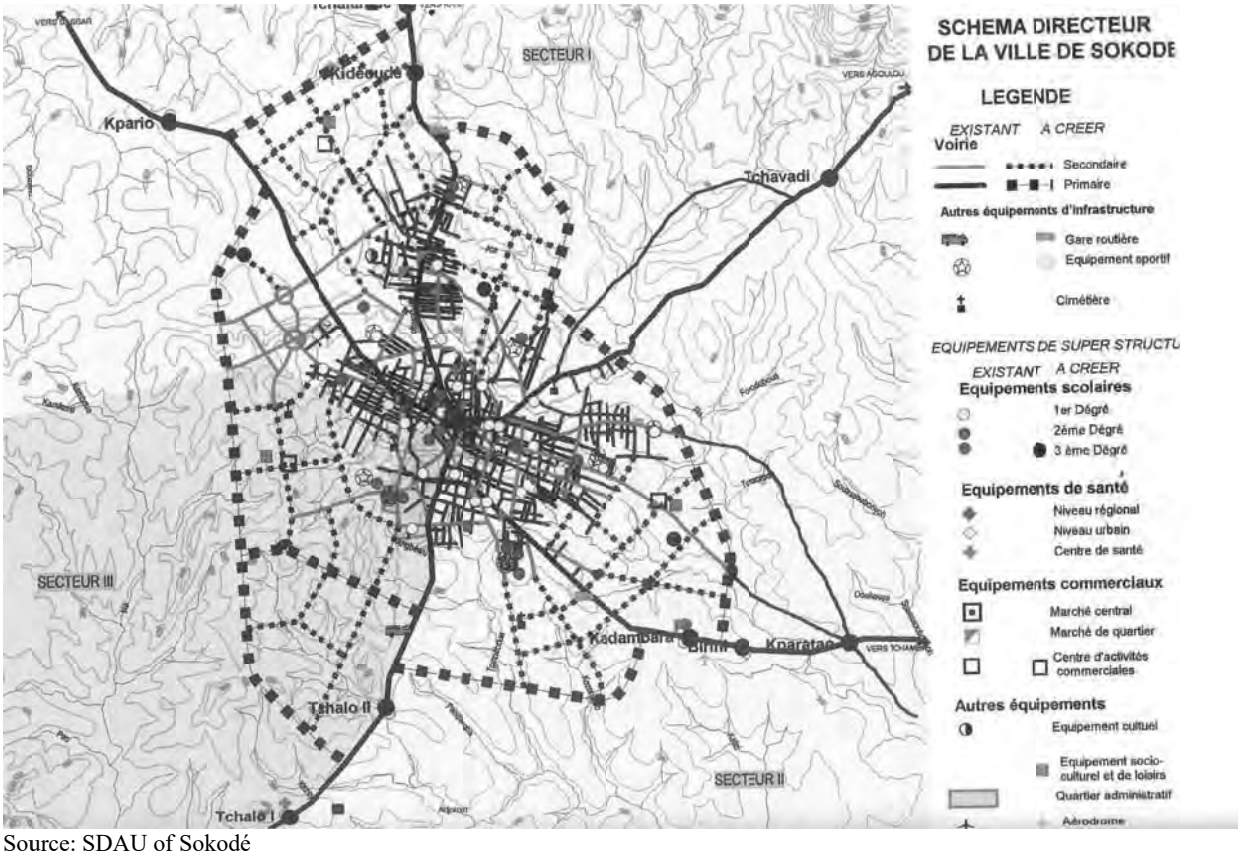
Sokodé is the third largest city in Togo and seat of the Tchaoudjo and Centrale Region in the centre of the country, 339 kilometres north of Lomé. Recently, the city has been experiencing an accelerated urban expansion with a marked urban sprawl sustained by a steady demographic growth.

(2) Demography of Sokodé

In 2015, the city's population was estimated at 101,900 inhabitants.

(3) Existing Urban Master Plan

The master plan of Sokodé proposes to develop the city in a concentric way around the main city centre by designating three major development sectors in which a network of outer ring roads is laid out defining the future growth limits. This network is further densified by a grid of secondary roads servicing the inner extension areas and equally providing the backbone for future development. In addition, the Master Plan identifies the necessity to build different public buildings and services including a bus station, sports facilities, a cemetery, schools, high schools in addition to a college, health facilities for the local and regional levels, public markets and commercial centres, and an administrative centre.



Source: SDAU of Sokodé

Figure 30.5.1 Proposed Master Plan of Sokodé (SDAU 2015)

30.5.2 Future Prospects for Sokodé

The city developed in precolonial times as a commercial crossroads on the Kola nut route between Ghana and Benin. Today Sokodé plays a major role as an administrative and commercial centre for the central region and specifically for the surrounding areas. Accordingly, and due to its strategic central location along the Lomé-Ouagadougou Corridor, and also due to its already established road and relational networks with the neighbouring countries of Benin and Ghana, Sokodé can be

prepared to play a major role at both the sub-regional and national levels as a major commercial and industrial hub.

30.5.3 Issues on Urban Development of Sokodé

- Accelerated low density urban sprawl
- Undersized urban centre
- Underdeveloped non-diversified economy relying mainly on trade of agriculture products

30.5.4 Objectives for Urban Development of Sokodé

The major objectives for urban development of Sokodé are listed below:

- To better connect the city to the neighbouring countries of Benin and Ghana
- To manage urban growth

30.5.5 Strategies for Urban Development of Sokodé

- To diversify the economic activities of Sokodé
- To restructure and uplift the city centre
- To weave the peripheral neighbourhoods into the main urban structure of the city

30.5.6 Programmes and Projects for Sokodé's Urban Development related to Corridor Development

The following is a list of priority projects that should be developed within Sokodé:

- Construction of outer ring road for Sokodé
- Updating of the SDAU for Sokodé, to help develop its inherent potentials as a major crossroad city
- Upgrading the drainage network of Sokodé
- Formulation of a master plan for solid waste collection and treatment for Sokodé

(1) Construction of the Outer Ring Road for Sokodé

1) Rationale

Sokodé is already congested with sprawling urban settlements towards the southeast where the geographical conditions are suitable for construction. The city is therefore expected to draw additional economic activities and a substantial volume of traffic demand. In anticipation it is important to construct an outer ring road that defines the city growth limits, and most importantly helps deviating through traffic along the Lomé-Ouagadougou International Corridor.

2) Objectives

- To avoid unnecessary through traffic leading to aggravated congestion
- To facilitate access to major sectors of the city and avoid traffic congestion
- To serve existing economic infrastructures.
- To define and expand the urban growth limits of the city
- To enable high-speed travelling of motor cars and trucks on the international corridor

3) Project Description and Phasing

The project description and phasing are provided below.

- To review existing right-of-ways of bypass roads and outer ring roads proposed in the outdted master plan of Sokodé, and propose the best connections to the Lomé-Ouagadougou Corridor
- To secure necessary land for the future implementation

- To reshape the spatial structure along the outer ring road

In an effort to reduce cost and at the same time achieve quick wins by serving the Lomé-Ouagadougou International Corridor passing through Sokodé, a specific part of the outer ring road should be designated as a priority. The eastern part of the city is easier to implement due to the existing geographic conditions. However, the national road which separates from RN 1 at the centre of Sokodé to the northwest can access to agriculture and mining potential areas of Togo. Therefore, the phasing of the outer ring road should be determined based on a more detail study. In both cases, the selected bypass road will help achieving the different strategic objectives stated above and should be scheduled for completion by the year 2025.

4) Expected Benefits

The following impacts and benefits are expected in this project:

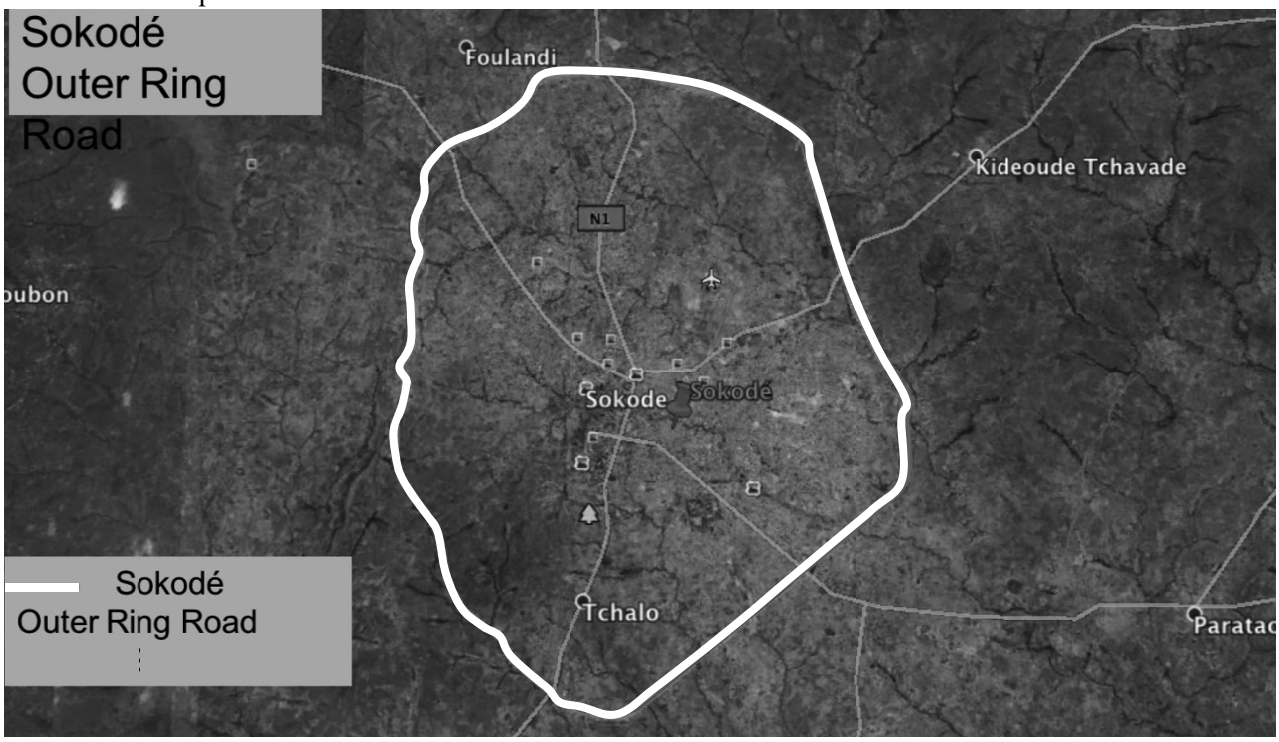
- Effective and efficient spatial development and deployment of economic sector activities along the bypass / outer ring road.
- Effective management of traffic flows along the Lomé-Ouagadougou Corridor and within Sokodé
- Facilitation of people and goods transportation
- Limiting urban sprawl by defining urban growth limits

5) Executing Agency and Related Institutions

- Ministry of Public Works and Transports
- Ministry of planning, housing and Quality of Life represented by AGETUR in cooperation with the regional and local administrations

6) Related Projects

- Project for Construction of 4-Lane High-Speed Way from Atakpamé to Kara
- Improvement of North-South Road between Sokodé and Bassar



Source: JICA Study Team based on existing conditions on the ground, and the proposed bypasses in SDAU of Sokodé

Figure 30.5.2 Proposed Location of Sokodé Outer Rings Road

30.6 Urban Development Strategies for Kara

30.6.1 Present Situation of Kara

(1) Urban Expansion of Kara

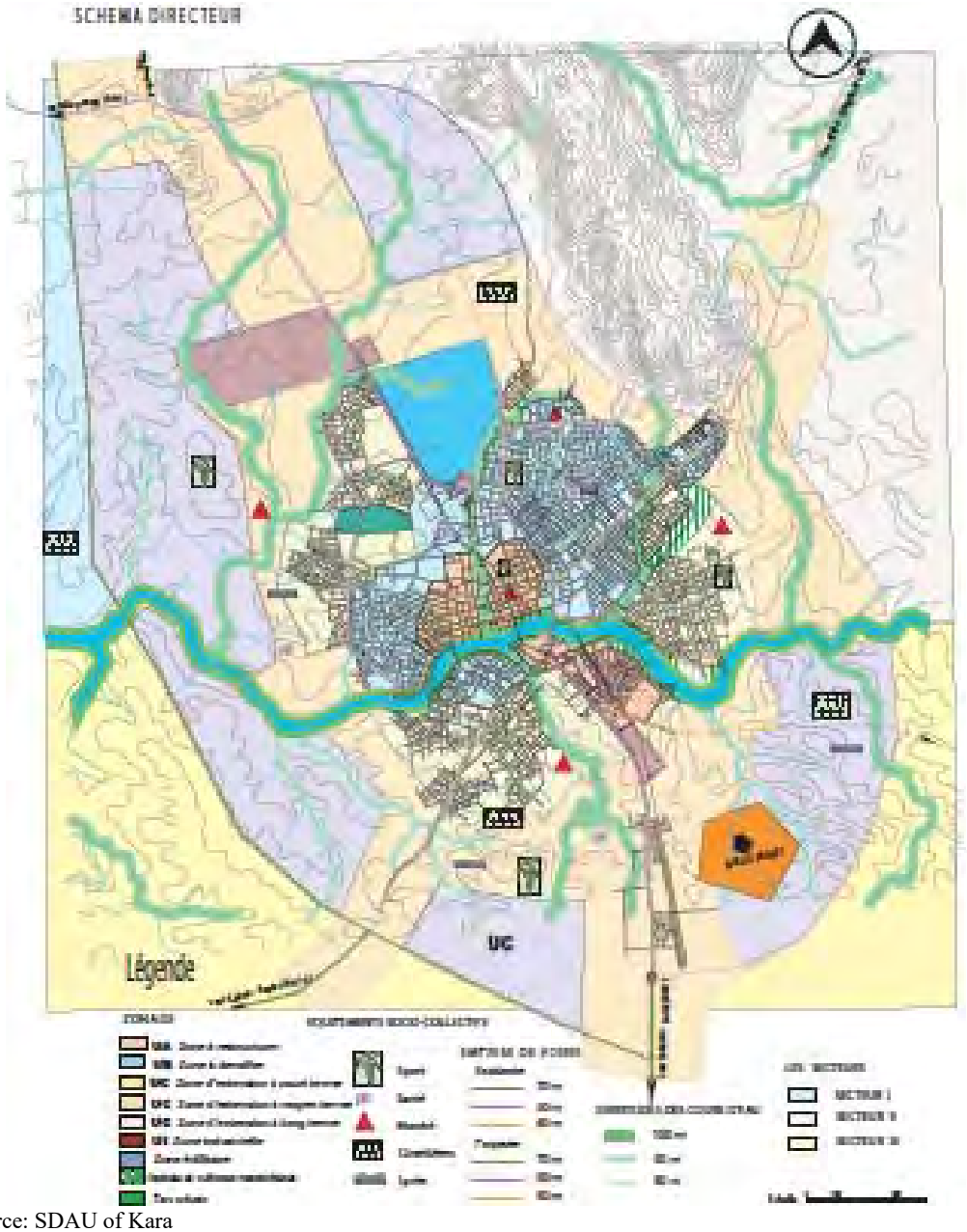
Kara is the capital of the Kara Region and the second administrative city of Togo situated 413 km north of the capital Lomé. Like most second tier cities in Togo, Kara has been experiencing and accelerated urban growth characterized by a low density sprawling development along major and secondary roads.

(2) Demography of Kara

In 2010, Kara had a population of 94,900 and has grown since to reach 104,400 inhabitants in 2015.

(3) Existing Urban Master Plan

The Master Plan of Kara has taken into account the geographical and physical features of the city and equally tried to compose with such natural elements proposing linear parks within the easements of the river and water streams.



Source: SDAU of Kara

Figure 30.6.1 Proposed Master Plan of Kara

Similarly, the master plan oriented the development of the city away from the mountain range. The urban extension is structured by an outer ring road of 70 meters wide bypassing the city from the West, mirrored by a 50-meter-wide eastern ring road which constitutes the urban growth limit of the city towards this direction. The road network is structured along the national road RN1, and completed by a series of semi- elliptic secondary roads passing along the edges of the current urban expansion and connected transversally in the East-West direction to the outer ring roads forming as such a large irregular grid that is supposed to guide the future urban extension of the city.

In term of land use, the master plan has provided for urban extension zones for the short, medium and long terms. It has also suggested the urban restructuring and the densification of the central core area, equally designating a large industrial area to the he north of the city in addition to two smaller industrial areas along RN1 from both sides of the river. In addition, the master plan has reserved a large zone for functional activities, and has also proposed sites for building public markets, sports terrains and facilities, an urban park, and a regional hospital.

30.6.2 Future Prospects for Kara

Kara is strategically located along the National Road RN1 connecting Lomé to Ouagadougou. Similarly, and in addition to its administrative role, the city has developed as a major commercial centre and has equally developed close ties with neighbouring Benin and Ghana weaving a dense trading network with the two countries. Moreover, the city is home to the second university of the country. All these factors have contributed to the development of the city and constitute today the stepping stone for projecting the future role of Kara at both the sub-regional and national levels. In that sense, it is imaginable that Kara could be developed on the medium and long terms as a second national capital and major regional metropolitan centre, and commercial hub in an effort to balance the national spatial structure and curb the overconcentration of activities and extreme polarization currently being witnessed in the Greater Lomé area.

30.6.3 Issues on Urban Development of Kara

The following issues are defined regarding the urban development of Kara:

- Kara has a series of water streams running from the north to the south within the city, and is geographically bounded to the North and to the Northeast by a chain of mountains, constraining somehow the urban extension towards these directions.
- Steady population growth causing low density urban sprawl
- Ill defined vision and role in relation to future development prospects.

30.6.4 Objectives for Urban Development of Kara

The following objectives need to be considered for the urban development of Kara:

- To envision a new role for Kara as second national capital and regional growth pole
- To make maximum use of the potential development of the Lomé –Ouagadougou transport corridor
- To build on the already established networks between Kara and the neighbouring countries of Benin and Ghana
- To manage urban growth and address the pressure of population increase and the loss of strategic land reserves around the city.

30.6.5 Strategies for Urban Development of Kara

The following are the strategies for urban development of Kara:

- To develop a regional growth pole for balancing spatial distribution and for accommodating

increasing population and economic activities by formulating a master plan for Kara

- To build an efficient fret and passengers railway line connecting Lomé to Kara.
- To upgrade the existing connections between Kara and Benin and Kara and Ghana.
- To construct an Outer Ring Road for managing urban and through traffic
- To implement necessary improvement and upgrading of public transportation for securing high urban mobility but also inter-city mobility for the poor and middle-income groups of people
- To provide necessary residential areas for the future population
- To prepare facilities, such as advanced medical facilities and laboratories, and sophisticated recreation and cultural facilities to attract business person and enterprise
- To prepare a master plan for drainage and solid waste treatment

30.6.6 Programmes and Projects for Kara's Urban Development related to Corridor Development

The following is an additional list of priority projects that should be developed within Kara in an effort to complement the development of the WAGRIC-CACAO project. Other priority projects have been highlighted and detailed at the beginning of this chapter and in different sections of this manuscript relating to specific sectors. In that sense, only the first project of the list will be treated in detail as it has not been specifically touched upon in terms of prioritizing the construction of specific sections at an earlier stage.

- Construction of Kara Bypass Road
- Updating of SDAUfor Kara, to help develop its inherent potentials as a major growth pole.
- Construction and management of industrial zones along the planned ring road or bypass road
- Upgrading the drainage network of Kara
- Formulation of a master plan for solid waste collection and treatment for Kara

(1) Construction of the Bypass Road for Kara

1) Rationale

As the second administrative capital of Togo with the second largest population, Kara has been prepared to play a major role in balancing the spatial structure at the national level. The city is therefore expected to draw additional economic activities and a substantial volume of traffic demand. In anticipation it is important to construct a bypass road that helps deviating through traffic along the Lomé-Ouagadougou international transport corridor which will reduce congestion within the city and at the same time facilitate high-speed travel of motor cars and trucks.

2) Objectives

- To avoid unnecessary through traffic leading to aggravated congestion
- To facilitate access to major sectors of the city and avoid traffic congestion
- To define and expand the urban growth limits of the city
- To enable high-speed travelling of motor cars and trucks on the international transport corridor

3) Project Description and Phasing

The project description and phasing are provided below.

- To review existing right-of-ways of bypass roads and outer ring roads proposed in the master plan of Kara, and propose the best connections to the Lomé-Ouagadougou Corridor
- To secure necessary land for the future implementation of such infrastructure projects
- To reshape the spatial structure along the outer ring road

In an effort to reduce cost and at the same time achieve quick wins by serving the Lomé-Ouagadougou International Corridor passing through Kara, bypass road has been designated as a priority to be constructed at the earliest stages. This specific section situated to the western part

of the city should therefore be given priority since it is easier to implement due its shorter length and most importantly to the relatively smoother geographic conditions.

4) Expected Benefits

The following impacts and benefits are expected in this project:

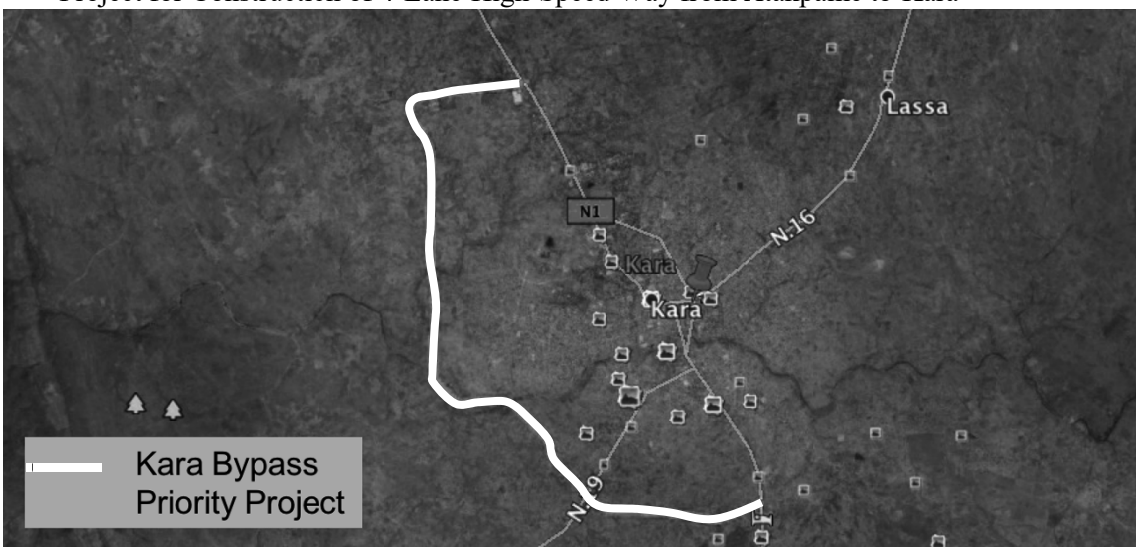
- Effective and efficient spatial development and deployment of economic sector activities along the bypass road.
- Effective management of traffic flows along the Lomé-Ouagadougou transport corridor and within Kara
- Facilitation of people and goods transportation
- Limiting urban sprawl by defining urban growth limits

5) Executing Agency and Related Institutions

- The Ministry of Public Works and Transports
- The Ministry of planning, housing and Quality of Life represented by Agetur in cooperation with the regional and local administrations.

6) Related Projects

- Updating of the existing Master Plan of Kara
- Project for Upgrading of East-West Road Connecting Kara with Kétao at East Side National Border and with West Side National Border
- Project for Construction of 4-Lane High-Speed Way from Atakpamé to Kara



Source: JICA Study Team based on existing conditions on the ground, and the proposed bypasses in SDAU of Kara

Figure 30.6.2 Proposed Location for Kara Bypass Road

30.7 Urban Development Strategies for Dapaong

30.7.1 Present Situation of Dapaong

(1) Urban Expansion of Dapaong

Dapaong is the regional capital of Savanes which includes four prefectures (Tone, Oti, Tandjoaré, and Kpendjal) in addition to the sub-prefecture of Cinkassé. The city is situated in the utmost north of the country close to the border with Burkina Faso, 638 km far from Lomé the capital and has an area of 91.59 km^2.

The city develops along the major roads that pass through it, and stretches 12 km long from south to north following the national road RN1, and 7,6 km from east to west. The morphological expansion

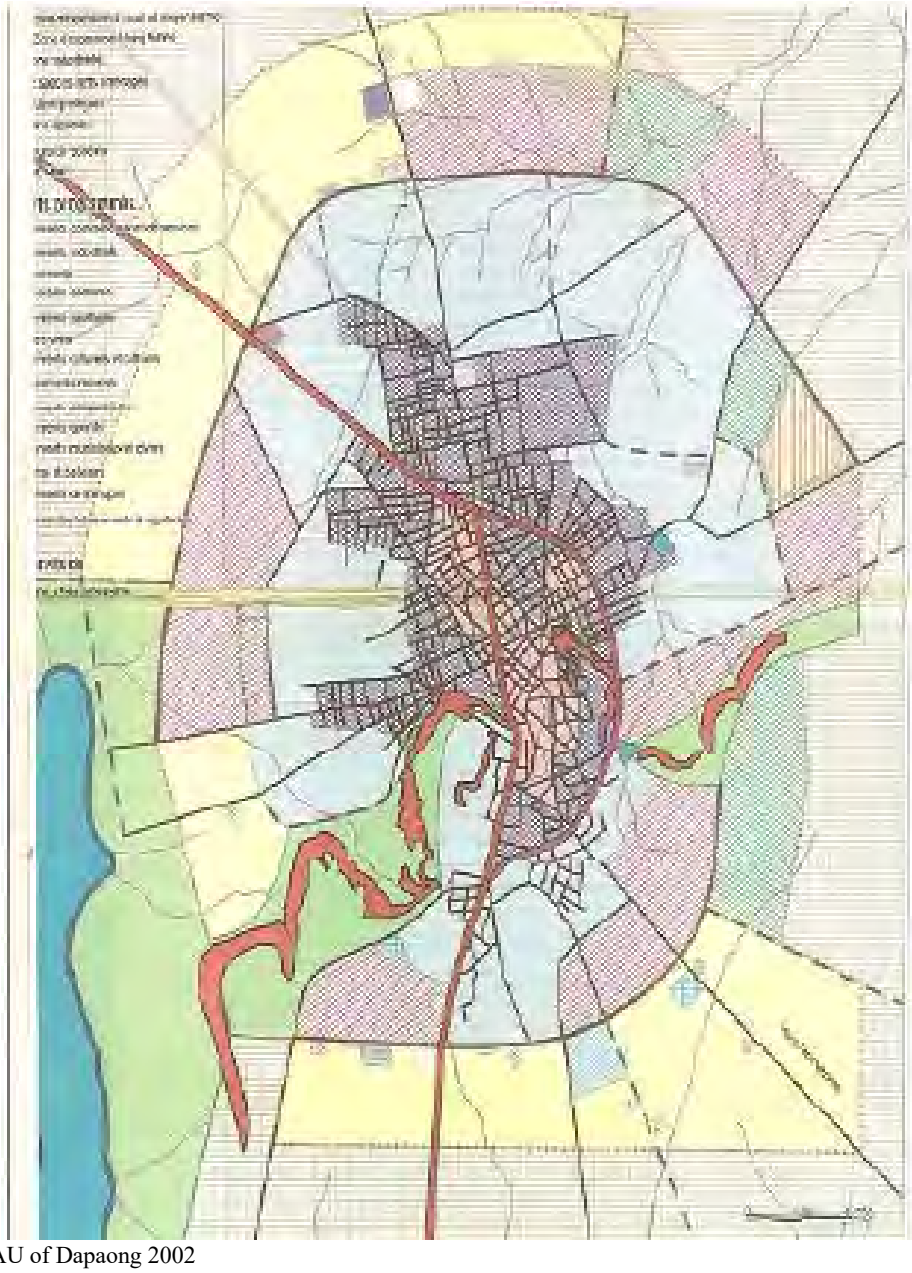
of the city has been irregular and sporadic since the year 1983 due to sustained demographic growth and the relatively marshy nature of the terrain, which creates certain difficulties in terms of development. Today the city has a footprint of approximately 2,000 ha.

(2) Demography of Dapaong

The city's population grew rapidly from 17,475 inhabitants in 1981 to reach 58,100 in 2010.

(3) Existing Urban Master Plan

The 1983 Master Plan of Dapaong has been revised in February 2002. The project was financed by the service of cooperation and cultural action of the French embassy in Togo as part of the project on urban integration and proximity cooperation (PIUCP).



Source: SDAU of Dapaong 2002

Figure 30.7.1 Proposed Master Plan of Dapaong (SDAU 2002)

In terms of road infrastructure, the master plan proposes a concept of outer ring road, that encircles the city which remains however sketchy and disconnected due to the many geographical obstacles of the terrain. The main idea is to define the future growth limits of the city and to facilitate its development by drawing a network of secondary roads taking into account the site specificities. The city is therefore divided into several different zones designated for short, medium and long term

urban expansion, industrial activities, in addition to green agricultural and protected areas, as well as mountains and water bodies protection areas. The master plan also provides for public and social facilities, commercial areas and public markets, administrative buildings, regional education and health facilities, sports and leisure, and municipal and transport facilities including a regional bus station.

30.7.2 Future Prospects for Dapaong

As a northern gateway city to Togo, the city's future needs to be carefully envisioned in an attempt to balance the spatial imbalance at the national level and at the same time to take full advantage of the strategic location of Dapaong along the prospective Lomé-Ouagadougou Corridor.

30.7.3 Issues on Urban Development of Dapaong

The following issues are defined regarding the urban development of Dapaong:

- Marshy terrain
- Steady population growth causing low density urban sprawl
- Ill defined vision and role in relation to future development prospects.

30.7.4 Objectives for Urban Development of Dapaong

The following objectives need to be considered for the urban development of Dapaong:

- To envision a new role for Dapaong as a gateway city to Togo
- To make maximum use of the potential development of the Lomé –Ouagadougou Corridor
- To build on the already established networks between Dapaong and neighbouring Burkina Faso
- To manage urban growth and address the pressure of population increase and the loss of strategic land reserves around the city.

30.7.5 Strategies for Urban Development of Dapaong

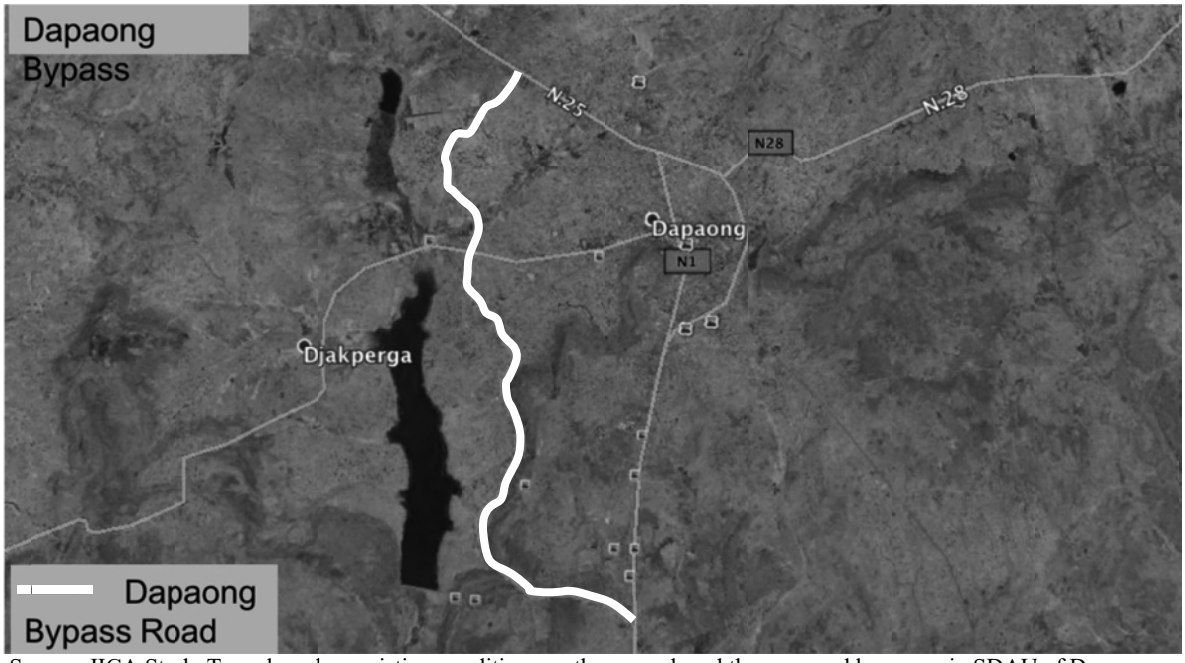
The following are the strategies for urban development of Dapaong:

- To develop the city as a northern gateway of Togo in an effort to balance spatial distribution by formulating a master plan for Dapaong
- To build an efficient dry port and industrial zone in Dapaong.
- To upgrade the existing connections between Dapaong and the international border with Burkina Faso and between Dapaong and Kara.
- To construct an Outer Ring Road for managing urban and through traffic
- To provide necessary residential areas for the future population
- To upgrade the provision of public services and infrastructures in Dapaong
- To prepare a master plan for drainage and solid waste treatment for Dapaong

30.7.6 Programmes and Projects for Dapaong's Urban Development related to Corridor Development

The following is an additional list of priority projects that should be developed within Dapaong:

- Construction of a Bypass Road for Dapaong
- Updating of the Spatial Development Framework and Structure Plan for Dapaong, to help develop its inherent potentials as a major growth pole
- Construction of a dry port and industrial zone
- Upgrading the drainage network of Daopong
- Formulation of a master plan for solid waste collection and treatment



Source: JICA Study Team based on existing conditions on the ground, and the proposed bypasses in SDAU of Dapaong

Figure 30.7.2 Proposed Location for Dapaong Bypass Road

Chapter 31 Social Development Strategies for Togo

31.1 Present Social Situation in Togo

31.1.1 Present Situation of Social Structure in Togo

(1) Ethnicity

There are more than 30 ethnic groups in Togo. The largest groups are the Adja-Ewe/Mina, the Kabiye/Tem, and the Gourma. The Ewe and the Mina people make up over 40% of the total population. They are based in the southern part of the country. Their primary occupation is farming for export. They are predominantly Christian. Ewe women are active in local commerce across the region.

The Kabiye-Tem make up approximately 25% of the population and are based in the northern part of the country. They are mostly subsistence farmers, predominantly Christian.

The Gourma make up approximately 15 % of the population and are based in the high north.

(2) Religion

According to the sample survey conducted for the Third Demographic and Health Survey (EDST-III: *Troisième Enquête Démographique et de Santé*) in 2013-14, Catholic has the greatest share regardless of sex (26% women against 27% for men) in Togo. Islam comes second (17% and 19%) followed by animists with 14% of women and 18% of men. Pentecostals also represent a large group with 17% of women against 15% of men.

Most Muslims live in the central and northern areas. Christians live mainly in the southern part of the country. The Muslim Union of Togo reports a large surge in immigrants from Muslim countries every year, but the government does not collect the statistics that would verify such reports.

(3) Rural Settlement

In 2010, approximately 50% of the population were living in urban areas, whereas the rest were in rural areas. Most of these rural populations are scattered in the small villages across the country.

(4) Social Structure and Traditional Communities / Leaders

The Ewe people are predominantly farmers and sea-fishing people who live along the coastal areas. They are living in under patrilineal lineage and hierarchy. The male elders are the chiefs and the leadership of the community.

The Kabye people are also predominantly farmers. There is a labour division based on gender. Men perform farming activities while women process the agro products and sell them at the market. The Kabye also live in a hierarchical society.

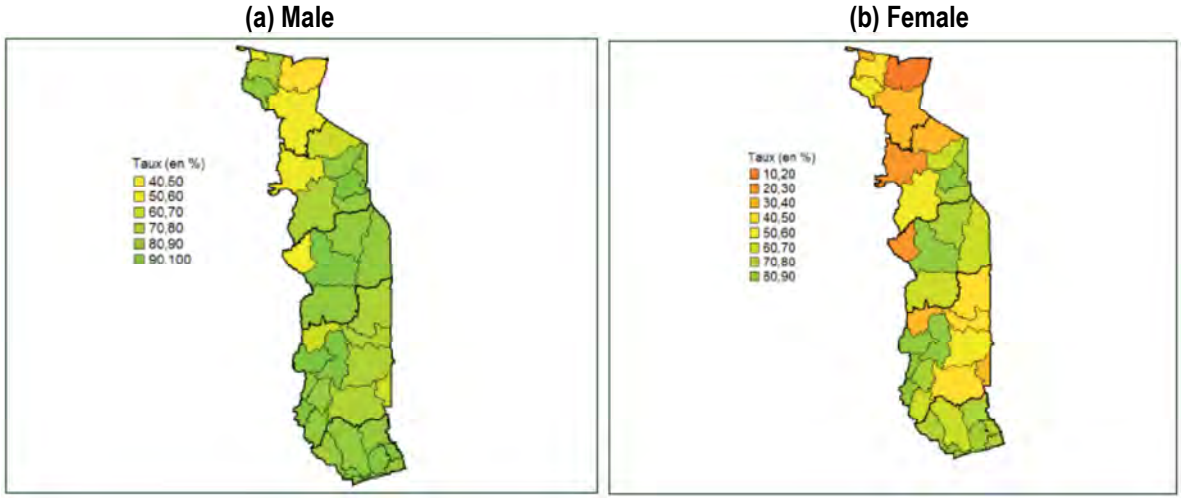
The Gourma people are also predominantly farmers. Weaving, dyeing, pottery, and basketry are also important crafts. The Gourma are patrilineal and have chieftaincy tradition. Most Gurma men, and many women, migrate to seek work in coastal areas.

31.1.2 Present Situation of Social System in Togo

(1) Education and Gender

According to Article 15 of the Togolese Constitution, education is compulsory for all children up to the age of 15. However, in 2010, 96.1 % of boys had completed primary school whereas only 71.6% of girls were able to complete it. The main factor of the low literacy rate for females in Togo is due to the time girls spend bringing water to their households.

The following figure also shows that the literacy rates are low in the Savanes Region for both males and females, and they are low for females west of Kara Region and east of the Plateau Region.



Source: Togo Cartographie de la Pauvretre 2011, UNDP

Figure 31.1.1 Literacy Rate by Gender and Prefecture (15-24 years old)

In addition to the above situation, according to the Strategy on Accelerated Growth and Employment Promotion (SCAPE: *Stratégie de Croissance Accélérée et de Promotion de l'Emploi*), there were on average only 33.1% of students with a usable manual for reading and 46.5% of students with a useable handbook.

(2) Health

The distribution of health workers in Togo is uneven with 82% of doctors working in the Maritime Region (77% are in Lomé) compared to 18% for the rest of the country. On the other hand, 48% of nurses are found in the Maritime Region (31% in Lomé) compared to 52% for the other regions. The share of the rural population with access to improved sanitation facilities has declined from 7.9% to 2.5% between 1990 and 2012, compared to 26.3% to 25.5% over the same period for the urban population, according to the World Bank.

31.1.3 Present Situation of Economic Activities and Land Use

(1) Economic Activities

Over 40% of the economically active population in Togo were engaged in primary and tertiary sectors each. While there are more males engaged in the primary sector, more females are engaged in the tertiary sector.

Table 31.1.1 Economically Active Population by Sector and Sex in Togo (2010)

		Primary Sector	Secondary Sector	Tertiary Sector	Total
Male	Number	520,470	215,005	405,282	1,140,757
	Share	45.6%	18.8%	35.5%	100.0%
Female	Number	487,868	170,143	573,021	1,231,032
	Share	39.6%	13.8%	46.5%	100.0%
Total	Number	1,008,338	385,148	978,303	2,371,789
	Share	42.5%	16.2%	41.2%	100.0%

Source: Bureau Central du Recensement, 2010, Quatrième Recensement Genreal de la Population et de l'Habitat, Publication des Résultats Définitifs Volume I: Résultats Prioritaires

The share of economically active population engaged in the tertiary sector in Lomé Commune is extremely high with over 75%, while that of Savanes Region, located next to Burkina Faso, is as low as only 19%. On the other hand, the share of economically active population engaged in the primary sector in Savanes Region is over 70%.

Table 31.1.2 Economically Active Population by Sector and Region in Togo (2010)

Region		Primary Sector	Secondary Sector	Tertiary Sector	Total
Lomé Commune	Number	4,223	86,188	275,803	366,214
	Share	1.2%	23.5%	75.3%	100.0%
Maritime	Number	218,877	148,421	339,917	707,215
	Share	30.9%	21.0%	48.1%	100.0%
Plateux	Number	323,966	66,119	137,922	528,007
	Share	61.4%	12.5%	26.1%	100.0%
Centrale	Number	101,131	28,106	79,824	209,061
	Share	48.4%	13.4%	38.2%	100.0%
Kara	Number	147,515	29,145	88,650	265,310
	Share	55.6%	11.0%	33.4%	100.0%
Savanes	Number	212,626	27,169	56,187	295,982
	Share	71.8%	9.2%	19.0%	100.0%

Source: Bureau Central du Recensement, 2010, Quatrième Recensement Genreal de la Population et de l'Habitat, Publication des Résultats Définitifs Volume I: Résultats Prioritaires

The poverty ratio of Togo in 2011 was 58.7% which decreased by 3% compared to 61.7% in 2006. However, while Lomé Commune, and Maritime and Kara Regions decreased their poverty rates Plateaux, Centrale and Savanes Regions increased their poverty rates.

Inequality at the national level, as well as in all regions, increased between 2006 and 2011. Accordingly, Plateau and Kara have the highest inequality coefficients (0.354), followed by Savanes (0.342), Lomé (0.337), Maritime (0.33) and Centrale (0.31). In terms of the rate of increase between 2006 and 2011, the ratio in the Maritime Region increased greatly by 0.041 points. Considering both the poverty ratio and Gini coefficient, the Savanes Region, which is located in the northernmost part of Togo is in a severe condition of poverty and has a large income gap with the national level.

(2) Land Use

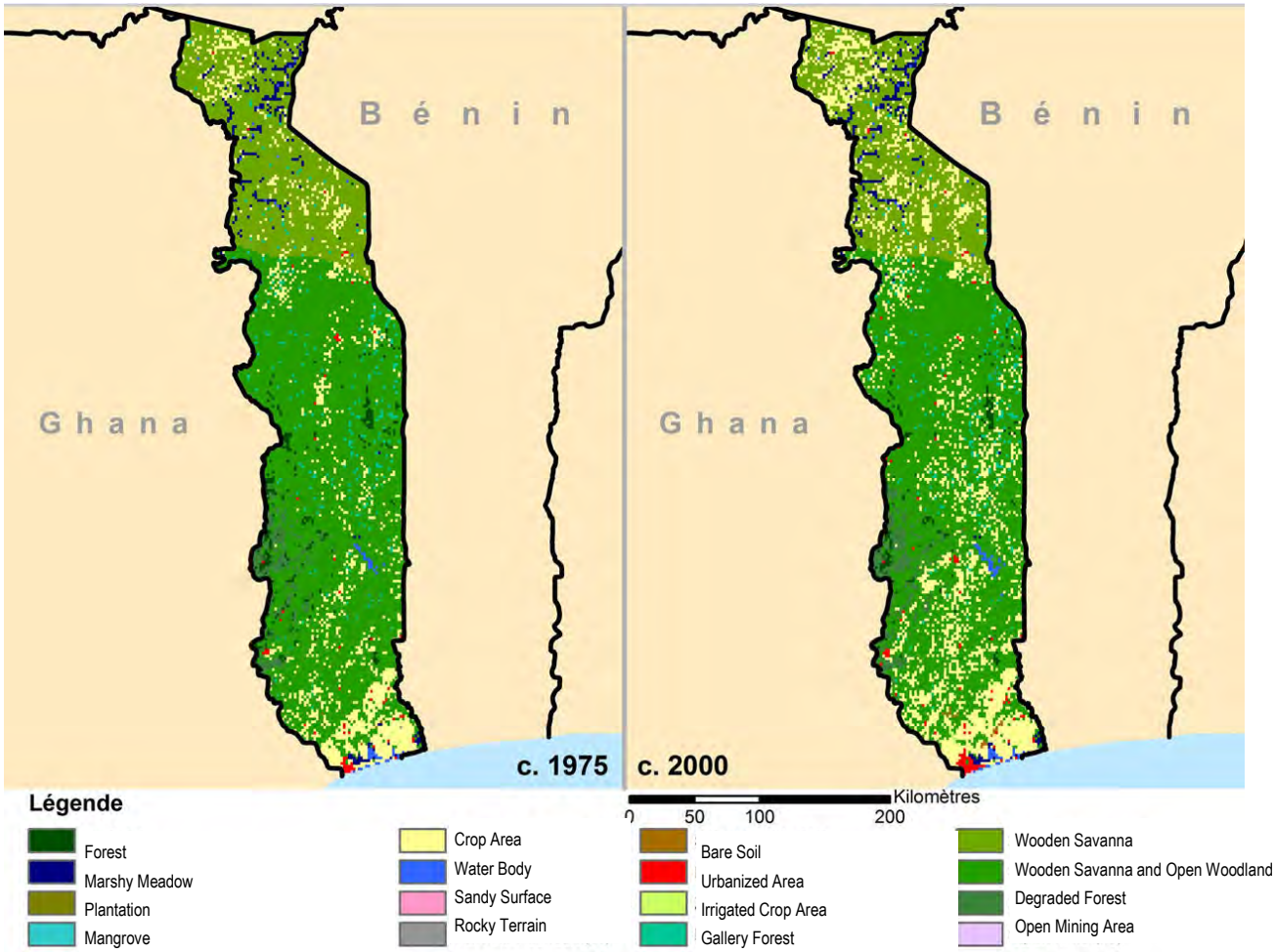
According to FAOSTAT 68% of the land area of the country is agricultural area, of which 67% was arable land in 2011. Permanent meadows and pastures were 27% of the agricultural area in Togo in 2011.

Figure 31.1.2 shows the change of land use in Togo between 1975 and 2000. The increase in agricultural land in all regions can be seen.

(3) Land Disputes

Land disputes in Togo are mainly caused by misunderstandings regarding verbal contracts over agricultural land. Bureaucratic procedures and expensive cost for land transaction are two of the reasons that local people do not follow the procedure for land registration. On the other hand, only Togolese and French citizens can directly own real estate in Togo without first requesting the permission of the Prime Minister.

Coastal erosion is also a significant concern related to land in Togo along the coast. Some fishing villages are losing their land for fishing activities due to the coastal erosion in the eastern part of Togo.



Source: USGS, West Africa Land Use and Land Cover Trends Project

Figure 31.1.2 Change of Land Use in Togo

31.2 Social Development Strategies for Togo

31.2.1 Issues on the Social Development in Togo

(1) Conflict over Land

As a result of an increase in the amount of farmed land, vacant lands continue to decrease. Since most rural lands are unregistered, conflicts over land might increase.

(2) Basic Education Inequity

There is gender inequality in the education sector because the value of education for girls is not well recognized, for they are often expected by their family members to stay home to assist in house work. In Togo, the literacy rate, especially for females in Savanes Region, is extremely low.

(3) Lack of Employability among the Youth

With the increase in foreign investments, job opportunities would increase. However, it is reported that the graduates from universities in Togo are not able to find employment in their chosen fields because they are not qualified for their operation.

Vocational schools which provide necessary skills to meet the requirements of the labour market such as construction or manufacturing are also necessary.

(4) Coastal Erosion and its Influence on Fishing Villages

People who earn their livelihoods by doing activities related to fishery are losing their jobs.

(5) Insufficient Health Facilities and Human Resources

In Togo, the number of doctors is more concentrated in Lomé and Maritime Region, where as the number of nurses is distributed more evenly. However, due to the increasing population, the number of health facilities in Lomé is insufficient.

In the rural areas, it is also important to improve the road access from rural villages to the health facilities.

31.2.2 Objectives for the Social Development in Togo

To tackle existing problems on social development in Togo, the following objectives are defined:

- To promote registration of rural lands for their agriculture and livestock by utilizing the land tenure law and monitoring the land ownership system
- To increase employability and create employment opportunities, as well as promote local industries
- To improve basic education and promote sufficient health care service

31.2.3 Strategies for the Social Development in Togo

The following strategies are formulated for social development in Togo:

- To raise the awareness and understanding of the communities and local people regarding their land rights and land values
- To develop the capacity of the institutions related to land possession
- To empower urban communities by supporting local people, especially the youth, in starting their own businesses, as well as getting jobs
- To create economic activities for fishermen along the coastal area who will be affected by coastal erosion and relocation
- To raise the awareness of parents and teachers for the importance of education, especially for girls, by promoting participatory community-based school management
- To improve employability of school graduates by promoting children's enrolment in secondary school education and vocational training

31.2.4 Programmes and Projects for the Social Development in Togo

The following projects and measures are proposed for social development in Togo.

- Project for Strengthening the Mechanism on Land Tenure Law Enforcement
- Project for Strengthening Capacity for Land Ownership Database
- Project for Health Infrastructure Development Planning
- Community-based School Management Projects
- Project for Strengthening Secondary Education and Vocational Education
- Project for livelihood creation for fishermen and women who are engage in fishing industry

PART VIII

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

Chapter 32 Strategic Environmental Assessment (SEA) for Burkina Faso

32.1 Legal Basis of SEA in Burkina Faso

In Burkina Faso, a Strategic Environmental Assessment (SEA) is carried out following the requirements described by the Environmental Code in Burkina Faso (Law No. 006-2013).

In this law, SEA is defined as the process of assessment and examination of impacts to be made by using policies, plans and programmes or any other initiatives (Article 4). All activities that might have considerable impacts on the environment are subject to prior opinion of the ministry in charge of the environment. The opinion should be drawn up on the basis of the Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA) or Environmental Impact Statement (EIS) (Article 25). Therefore, projects, plans, programs and policies likely to have significant effects on the environment are subjected to a strategic environmental assessment (Article 28).

In accordance with this law, guidelines for SEA are currently being developed.

32.2 Methodology for SEA for the WAGRIC Project

32.2.1 Objectives of the SEA Study for the WAGRIC Project

The objectives of the SEA Study for the WAGRIC Project are as follows:

- To incorporate environmental/sustainability issues in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan
- To improve the WAGRIC Master Plan by making it clearer and more internally consistent;
- To involve stakeholders including representatives of private sectors and civil society organizations in the decision-making process;
- To educate decision-makers about the environmental impacts of their decisions;
- To predict environmental impacts of the WAGRIC Master Plan; and
- To use those predictions in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan.

32.2.2 SEA Process

SEA is not simply a study, but also a process in parallel with plan formulation. For the project for formulating the WAGRIC Master Plan, the following steps were done for SEA:

1) Design of an overall process for SEA applied to the WAGRIC Project
2) Collection and analysis of baseline information and data on present social and environmental situations (land use, natural environment, social and economic situations)
3) Scoping (identification of possible impacts caused by the implementation of the WAGRIC Master Plan and identification of assessment tools) based on the understanding of concepts and approaches for formulating the Strategic Master Plan
4) Comparative Evaluation of alternative corridor development scenarios at the level of policies, plans, and programmes (PPPs)

5) Impact assessment of corridor development plans in accordance with a selected scenario at the level of PPP

6) Preparation of advisory notes for the WAGRIC Master Plan

This series of steps were conducted for the four countries. The JICA Study Team conducted SEA Studies in the four countries by subcontracting SEA steps (steps 2 through 6 mentioned above) to national consulting companies in each country of the Study Areas. Therefore, there are four SEA Studies and four SEA teams.

Stakeholder consultations were conducted for SEA's important steps including scoping, comparative assessment of scenario alternatives and the assessment of impact of corridor development plans. Stakeholders were selected including not only government officers of relevant fields, but also representatives of environmental non-governmental organisations and private business organisations.

The actual steps taken and stakeholder meetings held for Burkina Faso in the WAGRIC Project are described in Appendix F.

32.3 Social Considerations for Burkina Faso

Corridor development and regional integration might bring both benefits and negative impacts to Burkina Faso. Table 32.3.1 shows social effects by corridor development in Burkina Faso.

Table 32.3.1 Expected Social Effects of Corridor Development in Burkina Faso

	Social Benefits	Social Impacts
1) Establishment of OSBPs	• Faster process of customs and immigration at national borders shortening the time of travel and delivering of goods which would contribute to economic development	• Informal vendors and service providers might lose their jobs at the border since there might be less time to wait at the border posts • Service industry at the existing borders might decline since the existing borders might not be the main border once OSBPs are established
2) Increase of people and goods crossing the boarders	• If the demand for travelling within the sub-region increases, better flight connections might be established between the major urban centres as well as with the countries in the sub-region, which is a more favourable environment for business	• The risks of crime and prevalence of infectious diseases may increase in wide areas due to a large volume of migration.
3) Increase in competition among international transport corridors	• Cost of transport would decrease • Better services would be provided for the customers	• Increased competition might worsen working conditions for long-distance truck drivers in terms of wages and working hours
4) Rapid development of Abidjan-Lagos Corridor	• Demand for agro-products would increase due to larger middle class urban population, which farmers can benefit from •	• Loss of specialist personnel wishing to work in the coastal urban centres
5) Upgraded transport corridor network	• Small-scale farmers would have opportunities to expand their markets due to better access. • Business opportunities would expand due to the geographical expansion of development areas. • Not only large enterprises but also small & medium enterprises (SMEs) would be able to participate in development opportunities that would arise due to upgrading of transport corridors.	• Increase in the amount of traffic can increase the number of car accidents • Upgraded road will shorten the time of travel. Therefore, it will be possible to travel further with fewer rest stops to the destination. Under such situation, some urban centres along the corridor would be passed through in the future, which could cause decline in the economy • Construction of bypass road will shift the location of rest stops for the drivers which could be an impact for the traders
6) Large–scale infrastructure development and projects	• Job opportunities in the construction sector would increase	• Relocation of communities and compensation for farmers would occur • Non-permanent residents engaged in construction would increase, which might cause conflicts with existing residents

Source: JICA Study Team

32.4 Suggestions from the SEA Study for Burkina Faso for the WAGRIC Master Plan

(1) Suggestions from SEA Study in Burkina Faso: Northern Parts of Burkina Faso

The WAGRIC Master Plan emphasized the development potential of economic sectors, especially that of the agricultural sector in the southern part of Burkina Faso by improving road corridors towards Cote d'Ivoire, Ghana and Togo and irrigation facilities for agriculture. As a result, development efforts in the northern part of the country tend to be ignored or less emphasized.

Therefore, it was suggested by the SEA Study that attention should be paid to northern parts of Burkina Faso in corridor development. In response to this suggestion, the WAGRIC Master Plan included the following strategies and priority projects:

- To increasing the production and supply of live cattle and small ruminants to coastal markets
  - Project for basic service improvement for cattle and small ruminants and
  - Project for technical development for fodder crop production and feeding method
- To facilitate the transporting of live cattle and small ruminants to coastal areas
  - Projects for development of cattle loading and off-loading facilities and cattle waiting pens at railway stations (Suburban Ouagadougou, Kaya and Bobo-Dioulasso)

(2) Suggestions from SEA Study for Burkina Faso: Water Resources

In Burkina Faso, the promotion of economic sectors development through corridor development always requires development of reservoirs (water resources development). As a result, such corridor development would increase water consumption, which might make an impact on downstream (coastal countries) rivers or water resources.

Therefore, it was suggested by the SEA Study that integrated water resources management should be promoted covering Burkina Faso and its neighbouring coastal countries. In response to this suggestion, the WAGRIC Master Plan recommends a study on integrated water management covering the WAGRIC countries.

Chapter 33 Strategic Environmental Assessment (SEA) for Côte d'Ivoire

33.1 Legal Basis of SEA in Côte d'Ivoire

Considering the environmental legal frameworks for Côte d'Ivoire, the Environmental Code (Law No.96-766, 1996) is considered as the principal law next to the constitution. The Environmental Code comprises six parts: I) definitions of terms, purpose and scope, II) definitions of the environment, III) general principles, IV) the obligation of the state and local authorities, V) prohibited and criminal provisions and VI) final provisions/enforcement of the environmental code. Particularly, Part III states the equal right to secure a safe environment for all persons and gives the principal philosophy of the environmental protection. Then, the following Part IV gives the state and local authorities' obligations regarding the environmental protection and general guidelines, which defines the power of designated authorities to evaluate and control negative impact activities and minimum requirements of the environmental impact assessment. Under Article 74, the national environmental agency, l'Agence Nationale de l'Environnement (ANDE) was established and given power to enforce the Environmental Code.

Under the Environmental Code, the presidential decree No. 2013-41 of 30 January 2013 on "Strategic environmental assessment (SEA) for policies, plans, and programmes" was enforced in Côte d'Ivoire. Although the detailed requirements and guidelines for such activities shall be set in the future, the decree No.2013-41 principally sets the requirement of SEA for any policy, plan, or programme development by authorities except for some exceptions such as national security matters after the date of enforcement.

In this decree, SEA is defined as the analytical and participatory approach that aims to take environmental considerations into account in the development of policies, plans and programmes and to assess their interactions with economic and social considerations prior to their implementation (Article 1). The developer of policies, plans and programmes likely to have an impact on hazardous areas or ecologically sensitive areas should prepare and submit a SEA Report for examination to a National Commission and receive a signature of approval order by the Minister for the Environment (Article 3, 7, 8 and 10).

ANNEX of the Decree 2013-41 gives general guidelines for the SEA report.

- Presentation of the policy, plan or programme, its objectives and its links with other policies, plans and programmes as well as the National Development Programme
- Description of the owner or petitioner and SEA consultancy
- Institutional and regulatory environment affected by the policy, plan or programme
- Environmental characteristics of areas likely to be significantly affected or generic environmental parameters
- Major environmental issues identified from the likely significant effects on the environment, including issues such as biodiversity, population, human activities, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (archaeological heritage, landscape), and the interrelationship between these factors
- Summary report of the public consultation and the opinions issued by the attendees
- Recommendations and measures to prevent, reduce, or offset any negative impact of the implementation of the policy, plan or programme on the environment

- Summary statement of the reasons why other alternatives were selected, and a description of how the assessment was undertaken including any difficulties encountered, technical deficiencies or lack of know-how in collecting the required information
- Description of the environmental monitoring plan

33.2 Methodology for SEA for the WAGRIC Project

33.2.1 Objectives of the SEA Study for the WAGRIC Project

The objectives of the SEA Study for the WAGRIC Project are as follows:

- To incorporate environmental/sustainability issues in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan
- To improve the WAGRIC Master Plan by making it clearer and more internally consistent;
- To involve stakeholders including representatives of private sectors and civil society organizations in the decision-making process;
- To educate decision-makers about the environmental impacts of their decisions;
- To predict environmental impacts of the WAGRIC Master Plan; and
- To use those predictions in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan.

33.2.2 SEA Process

SEA is not simply a study, but also a process in parallel with plan formulation. For the project for formulating the WAGRIC Master Plan, the following steps were done for SEA:

1) Design of an overall process for SEA applied to the WAGRIC Project
2) Collection and analysis of baseline information and data on present social and environmental situations (land use, natural environment, social and economic situations)
3) Scoping (identification of possible impacts caused by the implementation of the WAGRIC Master Plan and identification of assessment tools) based on the understanding of concepts and approaches for formulating the Strategic Master Plan
4) Comparative Evaluation of alternative corridor development scenarios at the level of policies, plans, and programmes (PPPs)
5) Impact assessment of corridor development plans in accordance with a selected scenario at the level of PPP
6) Preparation of advisory notes for the WAGRIC Master Plan

This series of steps were conducted for the four countries. The JICA Study Team conducted SEA Studies in the four countries by subcontracting SEA steps (steps 2 through 6 mentioned above) to national consulting companies in each country of the Study Areas. Therefore, there are four SEA Studies and four SEA teams.

Stakeholder consultations were conducted for SEA's important steps including scoping, comparative assessment of scenario alternatives and the assessment of impact of corridor development plans. Stakeholders were selected including not only government officers of relevant fields, but also representatives of environmental non-governmental organisations and private business organisations.

The actual steps taken and stakeholder meetings held for Côte d'Ivoire in the WAGRIC Project are described in Appendix F.

33.3 Social Considerations for Côte d'Ivoire

Corridor development and sub-regional integration might bring both benefits and negative impacts to Côte d'Ivoire. Table 33.3.1 shows social effects that could be caused by corridor development in Côte d'Ivoire.

Table 33.3.1 Expected Social Effects of Corridor Development in Côte d'Ivoire

	Social Benefits	Social Impacts
1) Establishment of OSBPs	• Faster clearing process of customs and immigration at national borders, resulting in shortening the time of travel and delivering of goods, which would contribute to economic development.	• Informal vendors and service providers might lose their jobs at borders since less time is required when going through one-stop border posts.
2) Increase of people and goods crossing national boarders	• Better flight connections would be established between major urban centres as well as with the countries in the sub-region, which is a more favourable environment for business.	• Prevalence of crime risks and infectious diseases might increase in wide areas due to increased people's mobility due to expansion of the corridor networks.
3) Increase in competition among international transport corridors	• Cost of transport would decrease. • Better services would be provided for customers.	• Increased competition might worsen working conditions for long-distance truck drivers in terms of wages and working hours.
4) Rapid development of Abidjan-Lagos Corridor	• Widened national roads, multilane expressways, high-speed railways, international airports and international sea ports would be developed, which would improve the efficiency of the socio-economy. • Industrial development along the corridor would also accelerate modernization of commerce and services. • Heavy concentration of populations and economic activities in Abidjan can be reduced, and also in other cities, such as San-Pedro, • Demand for agro-products would increase due to larger middle-class urban population, which benefits farmers more.	• Informal settlements might increase due to rapid increase of urban population.
5) Upgraded transport corridor network	• Small-scale farmers would have opportunities to sell their products due to better access to market places. • Business opportunities would expand due to geographical expansion of development areas. • Not only large enterprises but also small & medium enterprises (SMEs) would be able to participate in development opportunities that would arise due to upgrading of the transport corridors.	• Increase in traffic volume might increase the number of car accidents.
6) Large–scale infrastructure development and projects	• Job opportunities in the construction sector would increase.	• Relocation of communities and compensation for farmers would occur. • Non-permanent residents engaged in construction would increase, which might cause conflicts with existing residents
7) Increase of private investments in urban areas	• Number of formal jobs would increase in major urban centres, such as Abidjan, Bouake, Korhogo and San-Pédro.	• Disparity within urban areas as well as that between urban and rural areas might increase.

Source: JICA Study Team

33.4 Suggestions from the SEA Study for Côte d'Ivoire for the WAGRIC Master Plan

(1) Suggestions from SEA Study in Côte d'Ivoire: Much Concentrated Development on the Central Corridor

In Côte d'Ivoire, the WAGRIC Master Plan recommends upgrading transportation and promoting economic sectors in its central corridor in the north-south direction (Abidjan-Ouagadougou Corridor) so that the central corridor would become more efficient and attractive so as to encourage more cargos, people and information to use the central corridor. The Abidjan-Ouagadougou Corridor would become a strong economic corridor

attracting investment to the economic sectors. As a result, the areas along the other north-south corridors would have fewer opportunities for developing economic sectors, but they are to be improved to be transport corridors.

Therefore, it was suggested by the SEA Study that development opportunities should be created for the other north-south corridors. In response to this suggestion, this point was included as a recommendation in the WAGRIC Master Plan.

(2) Suggestions from SEA Study in Côte d'Ivoire: Water Resources

The WAGRIC Master Plan points out the importance of the major regional cities along the central corridor (Yamoussoukro, Bouaké and Korhogo), as well as Greater Abidjan, for attracting investment to economic sectors, especially agro-processing industries targeting coastal markets. Development along the central corridor of Côte d'Ivoire would heavily depend on the water resources to be developed from one large watershed of the Bandama River. As a result, the concentrated development along the central corridor might have a negative impact on the water resources of the Bandama River basin.

Therefore, it was suggested by the SEA Study that coordination of water utilization of the Bandama River is necessary for sustainable development of the central corridor in Côte d'Ivoire. In response to this suggestion, the WAGRIC Master Plan recommends implementation of integrated water resources management for the Bandama River Basin of Côte d'Ivoire.

(3) Suggestions from SEA Study in Côte d'Ivoire: Coastal Areas

In the coastal areas of Côte d'Ivoire where many lagoons are located, a 6-lane Abidjan-Lagos Corridor Motorway is planned to be constructed, and various economic sectors including manufacturing industries, would be developed. While development activities in the areas along such lagoons are restricted in accordance with government regulations, the impact of the coastal economic corridor development (industrial and urban corridor development) proposed by the WAGRIC Master Plan would be significant.

Therefore, it is suggested by the SEA Study that coastal corridor development should be monitored paying attention to the environment of the lagoons in the coastal areas. In response to this suggestion, for conducting environmental monitoring of the lagoons, it is recommended to formulate a land use plan which would guide land use.

(4) Suggestion from SEA Study in Côte d'Ivoire: Coastal Metropolitan

In Côte d'Ivoire like other coastal countries of the WAGRIC Sub-Region, out-migration from inland areas and population influx into coastal areas, especially to urban areas, will continue endlessly unless some effective measures are taken. As a result, it is predicted that the population of the urban poor would increase excessively within the coastal metropolitan areas.

It was suggested by the SEA Study that strong measures should be taken for tackling this problem. In response to this suggestion, the WAGRIC Master Plan recommends an emphasis on promoting inland areas' economic sectors targeting sub-regional consumer markets based on their development potentials.

Chapter 34 Strategic Environmental Assessment (SEA) for Ghana

34.1 Legal Basis of SEA in Ghana

In Ghana, a Strategic Environmental Assessment (SEA) is being carried out based on the requirements of three acts, namely, National Development Planning Commission Act (1994, Act 479), National Development Planning (System) Act (1994, Act 480) and Environmental Protection Agency Act (1994, Act 490).

The National Development Planning Commission NDPC Act 479 empowers the Commission to make proposals for the protection of the natural and physical environment with a view to ensuring that development strategies and programmes are in conformity with sound environmental principles (Section 2.(2) c)). The NDP (System) Act 480 ensures that the decentralized national development planning system is regulated by legislative instruments and guidelines issued by the Commission (Section 1.(3)). The Environmental Protection Agency (EPA) Act 490 gives the power to the Agency to prescribe standards and guidelines relating to the pollution of air, water, land and any other forms of environmental pollution including discharge of waste and control of toxic substances which may be the result of an existing or new development (Section 2.(h)).

Also the Ghana Shared Growth and Development Agenda (GSGDA I) (2010-2013) indicated that one of the key objectives of the Environment and Natural Resource Sector for the future is SEA applied to inform decision-makers and mainstream the environmental consideration into all sectors, especially as regards the cost of environmental degradation. Furthermore, it is recommended to ensure that sustainable development principles are institutionalised and mainstreamed by demanding the mandatory use of SEA in the public policy processes. The GSGDA II (2014-2017) also ensures that SEA is mainstreamed into public policy processes.

In Ghana, it is considered by the NDPC and EPA that the mandatory implementation of SEA for public policies and development plans is stipulated by interpreting the above law, policy document and guidelines in a combined way.

34.2 Methodology for SEA for the WAGRIC Project

34.2.1 Objectives of the SEA Study for the WAGRIC Project

The objectives of the SEA Study for the WAGRIC Project are as follows:

- To incorporate environmental/sustainability issues in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan
- To improve the WAGRIC Master Plan by making it clearer and more internally consistent;
- To involve stakeholders including representatives of private sectors and civil society organizations in the decision-making process;
- To educate decision-makers about the environmental impacts of their decisions;
- To predict environmental impacts of the WAGRIC Master Plan; and
- To use those predictions in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan.

34.2.2 SEA Process

SEA is not simply a study, but also a process in parallel with plan formulation. For the project for formulating the WAGRIC Master Plan, the following steps were done for SEA:

1) 1) Design of an overall process for SEA applied to the WAGRIC Project

2) 2) Collection and analysis of baseline information and data on present social and environmental situations (land use, natural environment, social and economic situations)

3) 3) Scoping (identification of possible impacts caused by the implementation of the WAGRIC Master Plan and identification of assessment tools) based on the understanding of concepts and approaches for formulating the Strategic Master Plan

4) 4) Comparative Evaluation of alternative corridor development scenarios at the level of policies, plans, and programmes (PPPs)

5) 5) Impact assessment of corridor development plans in accordance with a selected scenario at the level of PPP

6) 6) Preparation of advisory notes for the WAGRIC Master Plan

This series of steps were conducted for the four countries. The JICA Study Team conducted SEA Studies in the four countries by subcontracting SEA steps (steps 2 through 6 mentioned above) to national consulting companies in each country of the Study Areas. Therefore, there are four SEA Studies and four SEA teams.

Stakeholder consultations were conducted for SEA's important steps including scoping, comparative assessment of scenario alternatives and the assessment of impact of corridor development plans. Stakeholders were selected including not only government officers of relevant fields, but also representatives of environmental non-governmental organisations and private business organisations.

The actual steps taken and stakeholder meetings held for Ghana in the WAGRIC Project are described in Appendix F.

34.3 Social Considerations for Ghana

Corridor development and sub-regional integration might bring both benefits and negative impacts to Ghana. Table 34.3.1 shows social effects by corridor development in Ghana.

Table 34.3.1 Expected Social Effects of Corridor Development in Ghana

	Social Benefits	Social Impacts
1) Establishment of OSBPs	• Faster process of customs and immigration at national borders shortening the time of travel and delivering of goods which would contribute to economic development	• Informal vendors and service providers might lose their jobs at the border since there might be less time to wait at the border posts
2) Increase of people and goods crossing the boarders	• Better flight connections would be established between the major urban centres as well as with the countries in the sub-region, which is a more favourable environment for business	• The risks of crime and prevalence of infectious diseases may increase in wide areas due to a large volume of migration.
3) Increase in competition among international transport corridors	• Cost of transport would decrease • Better services would be provided for the customers	• Increased competition might worsen working conditions for long-distance truck drivers in terms of wages and working hours
4) Rapid development of Abidjan-Lagos Corridor	• Widened national roads, multilane expressways, high-speed railways, international airports and international sea ports would be developed which would improve the efficiency of the society • Industrial development along the corridor would accelerate the modernization of commerce and services • Concentration in Greater Accra can be reduced along with other cities, such as Sekondi-Takoradi and Cape Coast, which are also developing rapidly • Demand for agro-products would increase due to larger middle class urban population, which farmers can benefit from	• Informal settlements may increase due to rapid increase of urban population • Insufficient social infrastructure (electricity, water supply and drainage) in Greater Accra, Sekondi-Takoradi and Cape Coast • Due to large-scale infrastructure development, the space where the street vendors can sell products would become limited along the corridor
5) Upgraded transport corridor network	• Small-scale farmers would have opportunities to expand their markets due to better access. • Business opportunities would expand due to the geographical expansion of development areas. • Not only large enterprises but also small & medium enterprises (SMEs) would be able to participate in development opportunities that would arise due to upgrading of transport corridors.	• Increase in the amount of traffic can increase the number of car accidents
6) Large–scale infrastructure development and projects	• Job opportunities in the construction sector would increase	• Relocation of communities and compensation for farmers would occur • Non-permanent residents engaged in construction would increase, which might cause conflicts with existing residents
7) Increase of private investments in urban areas	• Number of formal jobs would increase in the urban centres, such as Greater Accra, Greater Kumasi and Sekondi-Takoradi	• Disparity inside urban areas as well as between urban and rural areas might widen.

Source: JICA Study Team

34.4 Suggestions from the SEA Study for Ghana for the WAGRIC Master Plan

(1) Suggestions from SEA Study in Ghana: Much Concentrated Development on the Central Corridor

In Ghana, the WAGRIC Master Plan recommends upgrading transportation and promoting economic sectors in its central corridor in the north-south direction (Tema-Ouagadougou Corridor) so that the central corridor would become more efficient and attractive so as to encourage more cargos, people and information to use the central corridor. The Tema-Ouagadougou Corridor would become a strong economic corridor attracting investment to the economic sectors. As a result, the areas along the other north-south corridors would have fewer opportunities for developing economic sectors, but they are to be improved to be transport corridors.

Therefore, it was suggested by the SEA Study that development opportunities should be created for the other north-south corridors. In response to this suggestion, this point was included as a recommendation in the WAGRIC Master Plan.

(2) Suggestion from SEA Study in Ghana: Coastal Areas

In the coastal areas of Ghana where many lagoons are located, a 6-lane Abidjan-Lagos Corridor Motorway is planned to be constructed, and various economic sectors including manufacturing

industries would be developed. While development activities in the areas along such lagoons are restricted in accordance with government regulations, the impact of the coastal economic corridor development (industrial and urban corridor development) proposed by the WAGRIC Master Plan would be significant.

Therefore, it is suggested by the SEA Study that coastal corridor development should be monitored paying attention to the environment of the lagoons in the coastal areas. In response to this suggestion, for conducting environmental monitoring of the lagoons, it is recommended to formulate a land use plan which would guide land use.

(3) Suggestions from SEA Study in Ghana: Coastal Metropolitan

In Ghana like other coastal countries of WAGRIC Sub-Region, out-migration from inland areas and population influx into coastal areas, especially to urban areas, will continue endlessly, unless some effective measures are taken. As a result, it is predicted that the population of the urban poor would increase excessively within the coastal metropolitan areas.

It was suggested by the SEA Study that strong measures should be taken for tackling this problem. In response to this suggestion, the WAGRIC Master Plan recommends an emphasis on promoting inland areas' economic sectors targeting sub-regional consumer markets based on their development potentials.

Chapter 35 Strategic Environmental Assessment (SEA) for Togo

35.1 Legal Basis of SEA in Togo

Strategic Environmental Assessments (SEA) have not yet been frequently practiced in Togo. Togo's SEA is at its embryonic stage. Currently, Togo has not established any laws, regulations or guidelines for SEA. As a result, SEA in Togo should be carried out in line with Togo's Framework Law on the Environment (Law No. 2008-005) and the National Environmental Policy adopted on 23rd of December, 1998.

The Framework Law on the Environment is the basic law for environmental preservation and management in Togo. Article 1 of this law provides its objective and the following aims:

- To preserve and sustainably manage the environment;
- To guarantee an environmentally sound and balanced living environment for all citizens;
- To create conditions for the rational and sustainable management of natural resources for present and future generations;
- To establish the fundamental principles to manage and preserve the environment against all forms of degradation in order to exploit natural resources, to combat all kinds of pollution and nuisances;
- To sustainably improve the living conditions of the populations while respecting the balance with the surrounding environment.

In accordance with this law, guidelines for SEA are currently being developed by the government.

The National Environmental Policy states that the main guidelines of the government policy will focus on: i) Consideration of environmental concerns in the National Development Plan; ii) Removal and/or reduction of negative environmental impacts in public or private development projects and programs; iii) Strengthening of national capacities in environmental management and natural resources; iv) Improvement of the living conditions and the environment of the population, in order to promote good management of the environment and natural resources, stimulate the economy, and promote ecological and social sustainability of development activities.

35.2 Methodology for SEA for the WAGRIC Project

35.2.1 Objectives of the SEA Study for the WAGRIC Project

The objectives of the SEA Study for the WAGRIC Project are as follows:

- To incorporate environmental/sustainability issues in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan
- To improve the WAGRIC Master Plan by making it clearer and more internally consistent;
- To involve stakeholders including representatives of private sectors and civil society organizations in the decision-making process;
- To educate decision-makers about the environmental impacts of their decisions;
- To predict environmental impacts of the WAGRIC Master Plan; and

- To use those predictions in decision-making for formulating strategies and priority projects of the WAGRIC Master Plan.

35.2.2 SEA Process

SEA is not simply a study, but also a process in parallel with plan formulation. For the project for formulating the WAGRIC Master Plan, the following steps were done for SEA:

1) Design of an overall process for SEA applied to the WAGRIC Project

2) Collection and analysis of baseline information and data on present social and environmental situations (land use, natural environment, social and economic situations)

3) Scoping (identification of possible impacts caused by the implementation of the WAGRIC Master Plan and identification of assessment tools) based on the understanding of concepts and approaches for formulating the Strategic Master Plan

4) Comparative Evaluation of alternative corridor development scenarios at the level of policies, plans, and programmes (PPPs)

5) Impact assessment of corridor development plans in accordance with a selected scenario at the level of PPP

6) Preparation of advisory notes for the WAGRIC Master Plan

This series of steps were conducted for the four countries. The JICA Study Team conducted SEA Studies in the four countries by subcontracting SEA steps (steps 2 through 6 mentioned above) to national consulting companies in each country of the Study Areas. Therefore, there are four SEA Studies and four SEA teams.

Stakeholder consultations were conducted for SEA's important steps including scoping, comparative assessment of scenario alternatives and the assessment of impact of corridor development plans. Stakeholders were selected including not only government officers of relevant fields, but also representatives of environmental non-governmental organisations and private business organisations.

The actual steps taken and stakeholder meetings held for Togo in the WAGRIC Project are described in Appendix F.

35.3 Social Considerations for Corridor Development in Togo

Corridor development and sub-regional integration might bring both benefits and negative impacts to Togo. Table 35.3.1 shows social effects by corridor development in Togo.

Table 35.3.1 Expected Social Effects of Corridor Development in Togo

	Social Benefits	Social Impacts
1) Establishment of OSBPs	• Faster process of customs and immigration at national borders shortening the time of travel and delivering of goods could help to enlarge the catchment areas of Lomé Port which would contribute to economic development.	• Informal vendors and service providers might lose their jobs at the borders since less time is required when going through one-stop border posts.
2) Increase of people and goods crossing the boarders	• When land transport is developed for better mobility of people and goods, flight connections would be established between major urban centres as well as with countries in the sub-region	• Prevalence of crimes and infectious diseases might increase in wide areas due to increased mobility and goods, because of expansion of corridor networks.
3) Increase in competition among international transport corridors	• Cost of transport would decrease. • Better services would be provided for the customers.	• Increased competition might worsen working conditions for long-distance truck drivers in terms of wages and working hours.
4) Rapid development of Abidjan-Lagos Corridor	• Widened national roads, multilane motorways, high-speed railways, international airports and international sea ports would be developed which would improve the efficiency of the society • Industrial development along the corridor would accelerate the modernization of commerce and services. • Demand for agro-products would increase due to the larger middle-class urban population, which farmers can benefit from. • The economy of Togo will be able to grow rapidly, resulting in the increase in the number of formal jobs since Togo has the potential to become one of the attractive destinations for foreign investors who want to utilize the developed coastal corridor and it has a good location being close to both Lagos and Accra.	• Informal settlements may increase due to rapid increase of urban population • Insufficient social infrastructure (electricity, water supply and drainage) in Greater Lomé. • Concentration in Greater Lomé can be accelerated.
5) Upgraded transport corridor network	• Small-scale farmers would have opportunities to expand their markets due to better access and lower transport costs. • Business opportunities would expand due to the geographical expansion of development areas. • Not only large enterprises but also small & medium enterprises (SMEs) would be able to participate in development opportunities that would arise due to upgrading of transport corridors.	• Increase in traffic volume might increase the number of car accidents.
6) Large–scale infrastructure development projects	• Job opportunities in the construction sector would increase	• Relocation of communities and compensation for farmers would occur. • Migrant workers engaged in construction would increase, which might cause conflicts with existing residents.
7) Increase of private investments in urban areas	• Number of formal jobs would increase in Greater Lomé, Atakpamé, Sokodé and Kara.	• Disparity within urban areas, as well as between Greater Lomé and other areas might widen.

Source: JICA Study Team

35.4 Suggestions from the SEA Study for Togo for the WAGRIC Master Plan

(1) Suggestions from SEA Study in Togo: Coastal Areas

In the coastal areas of Togo where many lagoons are located, a 6-lane Abidjan-Lagos Corridor Motorway is planned to be constructed, and various economic sectors including manufacturing industries will be developed. While development activities in the areas along such lagoons are restricted in accordance with government regulations, the impact of the coastal economic corridor development (industrial and urban corridor development) proposed by the WAGRIC Master Plan would be significant.

Therefore, it is suggested by the SEA Study that coastal corridor development should be monitored paying attention to the environment of the lagoons in the coastal areas. In response to this suggestion,

for conducting environmental monitoring of the lagoons, it is recommended to formulate a land use plan which would guide land use.

(2) Suggestions from SEA Study in Togo: Coastal Metropolitan

In Togo like other coastal countries of the WAGRIC Sub-Region, out-migration from inland areas and population influx into coastal areas, especially to urban areas, will continue endlessly, unless some effective measures are taken. As a result, it is predicted that the population of the urban poor would increase excessively within the coastal metropolitan areas.

It was suggested by the SEA Study that strong measures should be taken for tackling this problem. In response to this suggestion, the WAGRIC Master Plan recommends an emphasis on promoting inland areas' economic sectors targeting sub-regional consumer markets based on their development potentials.