Côte d'Ivoire Abidjan

Abidjan is the economic capital of Côte d'Ivoire, while the administrative and political capital is Yamoussoukro. Abidjan is the most populous city in French-speaking West Africa. The agglomeration of Abidjan, also known as the Autonomous District of Abidjan, lies on the south-east coast of the country, on the Gulf of Guinea. The city is located on the Ébrié Lagoon. The Autonomous District of Abidjan covers an area of 2,119 square kilometres. Abidjan is composed of northern Abidjan and southern Abidjan, consisting of ten formal boroughs (or communes), and four sub-prefectures. According to the 2014 census, the Autonomous District of Abidjan is experiencing a strong growth and is characterised by a high level of industrialisation and urbanisation.*

The SWM services for household and similar solid waste of the Autonomous District of Abidjan are managed by the Ministry of Sanitation through the National Agency for Waste Management (Agence nationale de la gestion des déchets, ANAGED). Since 2017, Côte d'Ivoire has proceeded to a public service delegation for the cleanliness of the Autonomous District of Abidjan. For this delegation, an international call for tenders was organised, and the Autonomous District of Abidjan was subdivided into three lots. The call for tenders resulted in the selection of two qualified operators. These have started their activities in some communes, especially in Treichville, and were expected to cover all the communes of Abidjan by the end of 2018. The operators selected in Abidjan are building and will operate modern transfer centres according to the technical, environmental, and sanitary requirements. The main objective is to optimise waste collection, eventually reaching a rate of 95%, and to reduce transport costs. The Ministry in charge of sanitation has also appointed an operator to create a Technical Landfill Centre (CET). The CET should only receive residue from recycling stations or sorting centres. The CET was expected to be operational before the end of 2018. Data from the CET:

• The operator has an area of 150 hectares in the sub-prefecture of Songon in the Autonomous District of Abidjan, two kilometres from the village of Kossihouen.

- The cells will have in average an area of three hectares and a depth of about 16 metres.
- The operating life time of the CET is 47 years.
- Ancillary works will be made: roads, weighbridge, workshops and offices.
- The operator worked with technical and financial partners for the implementation of this project.
- The landfill of Abidjan, Akouédo, was almost full and was scheduled to be closed on 15 December 2018 according to the Ministry in charge of sanitation.
- Sources: * Wikipedia, Abidjan, accessed on 28 November 2018, https://en.wikipedia.org/wiki/Abidjan and https://en.wikipedia.org/wiki/Abidjan and <a href="https://en.wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.org/wikipedia.o

Information

Population*	4,707,000 (2014 census)	
Population growth (annual %)*	6	
Area (km²)*	2,119	
Climate*	Tropical wet and dry climate	
Main industries*	Construction and public works with the presence of major international groups	
Currency**	USD 1: XOF 577.81 (West African CFA franc) (February 2019)	
Other*	Abidjan has one of the biggest ports in the sub-region (West Africa) and the second-biggest in Africa (after Durban in South Africa). It is a container trans-shipment port.	

Sources: * Wikipedia, Abidjan, accessed on 28 November 2018, <https://fr.wikipedia.org/wiki/Abidjan> and <https://en.wikipedia.org/wiki/Abidjan> ** Oanda.com

Current SWM Situation

Item	Outline		
nstitutional System			
Legal system	 The laws and regulations related to SWM are as follows: Code of the Environment of the Republic of Côte d'Ivoire. There is no legislation specific to SWM. The national Code of Sanitation and the Cleanliness Charter are being finalised. 		
Policy/Plan	• There is no specific SWM policy or plan in the Autonomous District of Abidjan.		
Implementation system	 Ministry of Sanitation: in charge of the legislation and implementation of the sanitation policy. ANAGED, a structure under the supervision of the Ministry of Sanitation, is the entity in charge of the entire SWM sector. It has contracted companies with the collection, transport, and recovery of household waste. Ministry of the Environment: in charge of hazardous industrial waste. Ministry of Health: in charge of medical waste management. The private sector is responsible for its waste that it contracts to organisations approved by the competent Ministries (Environment, Sanitation and Health). 		
Technical System			
Waste generation amount & characteristics	 Waste generation amount: 5,000 tons/day (source: National Agency for Waste Management (ANASUR) 2016). Waste generation rate in residential area: 0.8 kg/person/day (source: ANASUR 2016). Waste collection amount: 3,000 tons/day (data obtained from the weighbridge at the Akouedo landfill site, Abidjan, ANASUR). Composition of the waste: food 49%, plastics 8%, paper 6%, textile 3%, metals 2%, glass 2%, sand 18%, others 12%. Study conducted by BURGEAP in 2010. 		

Item	Outline		
Storage and discharge/ Collection and transportation/ Road sweeping	 Modern transfer centres are under construction. The Technical Landfill and Recovery Centre (Centre de valorisation et d'enfouissement technique, CVET) of Kossihouen was expected to be in operation before the end of 2018. The main objective of the new system is to optimise waste collection, eventually reaching a rate of 95%, and to reduce transport costs. Operators are not only in charge of the collection but also pre-collection, sweeping, gutters cleaning, and the recovery and landfilling of end waste. No sorting at source. Number of collection vehicles: the Ministry received 150 vehicles in July 2018. 		
Intermediate treatment/ Recycling	 The new system is based on the construction of infrastructure, namely, transfer centres and a waste recovery and disposal centre, which were expected to be operational by the end of 2018. The operators will undertake waste recovery at the landfill centre through the production of electricity or compost. 		
Final disposal	 There is a landfill in the District of Abidjan: Landfill of Akouedo (53 ha), that was scheduled to be closed on 15 December 2018. The Technical Landfill and Recovery Centre (CVET) of Kossihouen was expected to be in operation before the end of 2018. Owner: Ministry of Sanitation. Location: 42 km west of the Hôtel du District Autonome d'Abidjan. Area: 150 hectares. Operation hours: 24 hours. Waste disposal amount: 4,900 tons/day. Data sources: ANASUR 2016. Facilities: ongoing. Operation plan: there is a plan. Operation: waste screening, production of electricity or compost. 		
Financial system	 Total revenue from waste services: Data not provided. Cost of waste management in Abidjan: XOF 16 billion, or approximately USD 28 million in 2016 (source ANASUR, replaced by ANAGED). Total expenditure for waste services: for the Autonomous District of Abidjan, the annual budget for the management of household and similar solid waste allocated by the State is about XOF 42.259 billion (USD 73 million). A new system is underway. ANAGED collects waste collection fees through electricity bills. The amount is 2.52 XOF/KWh and is only applied to subscribers of low voltage electricity by the Ivorian Electricity Company (CIE). The amount collected totals XOF 1.2 billion (USD 2 million). ANAGED receives state budget subsidies. 		
Environmental and social considerations	 There is no policy or law to support the informal sector through job creation or training opportunities. There are approximately 3,000 waste pickers and recyclers in the Autonomous District and at the Akouedo landfill site. Waste pickers will be denied access to the new CVET landfill. The community is informed about the waste disposal practices such as collection days and time. There is also a campaign to clean up the city, called "Big Cleaning Operation", set up by the government in February 2017 as a tool for mobilising and raising awareness of the population about behaviour change. This operation takes place on the first Saturday of every month. 		
Donor support	World Bank: financial assistance for SWM for the "Abidjan Clean City" operation in 2012.		
Areas for improvement (in order of priority)	 Legal issues: finalisation of the legal texts on SWM and empowerment of local authorities and citizens through specific decrees. Technical issues: capacity building of the Environment Department of the Autonomous District of Abidjan. Financial issues: financial resources for the acquisition of organic waste composting units and fuel production units from plastics. 		

Waste Amount at Each Stage of Waste Flow*

Waste flow	Amount ** (ton/day)	Remarks
Waste generation	5,000	Waste generated at houses, offices, shops, restaurants, etc.
② Discharge to collection	3,500	Waste discharged for collection services.
Self disposal	N/A	Disposal at generation sources, such as burning and burying.
4 Recycling at source	N/A	Reuse of materials, composting, sold to recyclers.
Collection and transport	3,500	Waste amount collected and transported.
Clandestine dumping	N/A	Waste illegally disposed of in unknown location.
Treatment	N/A	Material recycling, composting, incineration, etc.
8 Recycling/Reduction	N/A	Recycled and/or reduced waste amount by material recycling, composting, incineration, etc.
9 Residue	N/A	Residue from treatment facilities.
Final disposal site	3,500	Waste amount brought into disposal sites.
Recycling	N/A	Recycled at disposal sites.
Pinal disposal	3,500	Waste amount finally disposed of at disposal sites.

* Based on the waste flow chart on page. ** Figures include estimated value.