### BASIC INFORMATION

#### A. Basic Project Data

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<th>Country</th>
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<td>P168308</td>
<td>Urban Resilience and Solid Waste Management Project</td>
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#### Proposed Development Objective(s)

The development objective of the project is to (a) reduce vulnerability to flooding in selected urban areas; and (b) improve solid waste management in targeted municipalities.

#### Components

- Component 1: Flood risk mitigation infrastructure and services
- Component 2: Improvement of solid waste management infrastructure and services
- Component 3: Project management support
- Component 4: Contingent Emergency Response

### PROJECT FINANCING DATA (US$, Millions)

#### SUMMARY

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#### DETAILS

World Bank Group Financing

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Page 2 of 17
B. Introduction and Context

Country Context

1. Economic growth remains strong. With GDP growth estimated at 7.4 percent in 2018 (4.8 percent in per capita terms) and estimated at 7 percent in 2019, Côte d’Ivoire continues to be one of the fastest growing economies in sub-Saharan Africa (which is growing at 2.3 percent in 2018). The services and industry sectors supported the country’s strong economic performance. The services sector recorded a strong performance due to the growth of telecommunication, trade and transport services. Public investments (Fourth Bridge and Metro in Abidjan) and private investments (in the housing sector) supported the construction sector while agro-processing boosted manufacturing activities. In the primary sector, strong cocoa, coffee and cotton crops offset the lower production registered in the cashew sector.

2. Economic growth has been associated with a moderate decline in poverty and inequality but the gap between poor and rich remains significantly high. At the national level, poverty has slightly decreased from 29.1 percent in 2008 to 25.2 percent in 2018 (international poverty line US$1.90 purchasing power parity). In urban areas, however, poverty has increased, partly as a result of the migration process from rural to urban areas. The decline in poverty observed at the national level is driven by a reduction in poverty in rural areas where the proportion of people living below the poverty line decreased from 62.5 percent in 2008 to 56.8 percent in 2015. Though universal enrollment and gender parity have nearly been achieved in primary education, gaps remain in secondary education, with the lowest participation rates in rural and poor communities. Employment remains predominantly informal and the country continues to face major challenges in terms of job quality and urban mobility.

3. The medium-term outlook remains favorable. Growth is projected to reach at least 7 percent over the medium term, spurred by increased productivity in the agricultural and industrial sectors, and a dynamic services sector. The use of improved seeds is expected to increase agricultural productivity and the expansion of cocoa and cashew processing will support the manufacturing sector. Greater agricultural productivity and processing will lead to an increase of exports. The construction sector will continue to grow as new industrial zones as well as public infrastructure are developed both in Abidjan and in the
secondary cities. All of these sectors should both benefit and contribute from the country's rapid urbanization and economic progress. As a result of reforms improving the business climate, private investment is expected to further accelerate in the agribusiness and service sectors. Inflation is expected to gradually increase, reaching 2.0 percent in 2022 (well below the WAEMU target) as the output gap remains positive.

4. **While the short- and medium-term outlook remains favorable, risks are tilted to the downside.** Vulnerability to external shocks remains one of the main challenges to achieving sustainable growth. Rising concerns over cocoa related deforestation and child labor in Cote d’Ivoire might lead to reduced access to markets in Europe and the US (which account for about 85 percent of Cote d’Ivoire cocoa exports). The policy measures supported by this operation are expected to mitigate this risk. A stronger-than-expected decline in cocoa prices could adversely impact fiscal revenues, economic growth, and the significant share of the population whose livelihoods depend directly on cocoa. A tightening of monetary policy in international and regional markets would increase the cost of borrowing and affect debt sustainability. As for domestic risks, 2020 presidential elections could lead to an increase in spending (social spending but also public investments). This could affect the Government’s capacity to comply with the regional convergence criterion for the fiscal deficit (3 percent of GDP). This risk is mitigated by the fact that the Government requested a one-year extension of the IMF Program. This is expected to help to maintain fiscal discipline during the electoral period. Greater political uncertainty, as well as the resurgence of socio-political tensions, may also have a negative impact on investor confidence in Côte d’Ivoire and affect economic growth. Finally, adverse climatic conditions may negatively affect agricultural output and exports.

**Sectoral and Institutional Context**

*Rapid and Uncontrolled urbanization*

5. **The urban sector in Côte d’Ivoire is characterized by unprecedented population growth.** More than 54 percent of the Ivorian population lives in cities, with an urbanization rate of around 5 percent per year. The district of Abidjan includes the highest human and economic concentration in the country: a population estimated today between 5 and 6 million inhabitants or 20 percent of the total population and nearly 45 percent of urban dwellers. The district of Abidjan alone accounts for more than 60 percent of the country’s economic activities. In 2025, one Ivorian out of four will live in the Abidjan metropolitan area. Eleven other cities with more than 100,000 inhabitants are considered as secondary cities; the largest five are Bouaké, Daloa, Korhogo, San Pedro, and Yamoussoukro. Between 1998 and 2014, the population grew by 53 percent in Abidjan, 43 percent in San Pedro, and 17 percent in Bouake, which was severely affected by the civil unrest.

6. **Basic sanitation, solid waste management and storm water infrastructure facilities in the urban sector have not kept up with rapid urban growth.** The country’s economic development coupled with lack of land planning and infrastructures maintenance has deepen Côte d’Ivoire’s urban issues and led to both environmental degradation and increase of population vulnerability to natural hazards. Major factors exacerbating this vulnerability are the following: i) occupation of “non-aedificandi” – or not constructible-areas, construction of dwellings in risk areas such as storm basins; ii) a deficit in alternative housing
exacerbated by a growing exodus of rural populations to urban areas; iii) a lack of funding and investment in the implementation of master plans for sanitation and drainage; iv) an inadequate solid waste management system, causing unsanitary conditions and spreading disease; v) insufficient involvement of local authorities in development management.

An incomplete (or unachieved) decentralization process

7. The government’s 2003 decentralization policy transfer and distribution of responsibilities of the state to local authorities specifies 16 areas of expertise for transfer. The institutional framework governing decentralization and the law changed in 2012, reducing the former five levels of decentralized entities into two: namely regions (31) and municipalities (197). In addition, two autonomous districts were created for Abidjan and Yamoussoukro. Nevertheless, devolution has not been accompanied by a full transfer of financial and human resources and local authorities lack autonomy and capacity to manage urban expansion and provision of infrastructure and services.

8. The Abidjan Autonomous District is a special type of local authority with legal and financial autonomy. Its main sources of funding come from the taxes collected and transferred by the State, including land-built taxes, patents, casino gaming licenses, and State subsidies, among others. The district comprises thirteen municipalities and ninety-six villages. The district’s authority was set into law in 2014\(^1\) and includes: (i) environmental protection; (ii) land use planning; (iii) mitigating the adverse effects of urbanization (iv) promotion and implementation of social and cultural economic development; (v) public safety (vi) protection and promotion of cultural traditions.

Disaster risk profile and climate change

9. Côte d’Ivoire is prone to natural disaster risks like flooding and landslides, exacerbated by the effects of rapid urbanization and climate change. The country is located in the transition zone between a humid equatorial climate in the south and the drier tropical climate in the north. In the north, the rainy season is from June to October, while in the southern region May to June brings heavy rains, averaging 2000mm annually along the coast, and shorter rains occur during August and September. High rainfall in the south supports an abundance of agriculture, namely cocoa, cashews, and coffee.

10. Floods are a perennial hazard in Côte d’Ivoire, especially in the southern part of the country with the highest rainfall. An estimated average of 60,000 people are affected by floods and nearly 0.7 percent of the country’s GDP is lost every year. Furthermore, Abidjan like other coastal cities, such as Grand Bassam, are particularly vulnerable to natural disasters associated with sea-level rise.

11. Climate trends are characterized by rising temperatures and increasing extreme events. An analysis of climate data from 1970 to 2015 shows an average rise of a little more than 1°C But future change in precipitation is not easily predictable, and different climate modeling scenarios present a large variability over the very long term. However, by 2050, the country could face an estimated 9% decrease.

\(^1\) No. 2014-453 of 5 August 2014
of precipitation in May coupled with an increase of 9% in October and 30 cm of sea level rise. Rising
temperatures and increased variability will also increase the frequency and magnitude of extreme events.
These will further exacerbate the risk of flooding due to increased extreme precipitation and lack of
capacity to discharge stormwater by the existing drainage systems, also due to sea level rise in coastal
cities. In the absence of a comprehensive study on the impact of climate change on the Ivorian economy,
estimates can be made based on extrapolations of data from African continent-wide studies. According
to the Intergovernmental Panel on Climate Change (IPCC), climate change could reduce Africa's GDP by 2
to 4 percent by 2040 and between 10 and 25 percent in 2100. For Côte d'Ivoire, this would correspond
to an equivalent loss of 380 to 770 billion FCFA. More concerning is the possibility that climate change
could push 2% to 6% of additional households into extreme poverty by 2030. For Côte d'Ivoire, this would
correspond to nearly 1 million additional people in a situation of extreme poverty (people living on less
than US$1.90 a day) in addition to the existing 6 million.

12. The District of Abidjan is particularly prone to disaster risks like flooding and landslides.
According to the available statistics, more than 26 percent of the district's area is at risk of floods and
landslides. Over the past decade, Abidjan has experienced recurrent floods resulting in significant human
and economic losses. The immediate causes include: (i) inadequate drainage infrastructure and
associated investments to adapt the system to current and future urban/climate conditions; (ii) operating
deficit and sanitation and drainage networks; (iii) human occupation of the right of way of sanitation and
drainage and sites unsuitable for construction; (iv) dumping of household and other waste into sewage
and drainage networks; (v) uncontrolled extraction of land, deforestation, and disordered land clearing;
and (vi) obstruction of gutters and drains.

Storm water management

13. In the city of Abidjan, the poor conditions of the storm drainage network contribute to
increasing flood risk. The recent post flood assessment proved that this was one of the most aggravating
factors contributing to recurrent flooding. Except for a few investments, such as the Abidjan East-West
Watershed (IDA-funded under the PRICl project), and the Mahou neighborhood discharge system, the
rainwater drainage system in the District of Abidjan has received little investment since the 1990s. In some
neighborhoods, such as Abobo in the north, only an estimated 11 percent of the land mass is serviced
with rainwater drainage. In addition to the recurring damage to public and private assets, the lack of
functioning drainage systems has a knock-on effect on urban mobility, as unchecked rainwater increases
the speed with which road networks deteriorate.

14. In Côte D'Ivoire, sanitary and storm water systems are overseen by the National Office of
Sanitation and Drainage (Office National de l'Assainissement et du Drainage - ONAD), which serves as
the management entity for projects within this sector. Two ministries are mainly responsible, the
Ministry of Sanitation (Ministère de l'Assainissement et de la Salubrité - MINASS) and the Ministry of
Construction, Housing, and Urbanization (Ministère de la Construction, du Logement, et de l'Urbanisme -
MCLAU). Within MINASS, the Directorate of Sanitation and Salubrity, (Direction Générale de
l'Assainissement et de la Salubrité - DGAS), is tasked with oversight roles. The Autonomous District of
Abidjan (District Autonome d'Abidjan - DAA) has also assumed an important role in the same sector, albeit
limited to the greater Abidjan area. The 13 communes that make up the District of Abidjan also play a role on the local “neighborhood” level.

15. **To tackle flood risk and poor sanitation in Abidjan, the government of the Côte d’Ivoire commissioned the preparation of a Sanitation and Drainage Master Plan** which was finalized in 2018 (*Schema Directeur d’Assainissement et de Drainage du District d’Abidjan - SDAD*). The Plan, financed by AFD, provided an estimate of the financial needs for drainage and sanitation for Abidjan by 2030, and a vision for sewer infrastructure development in Abidjan through 2030. The Master Plan was set up in eight phases, with US$2,100 million for sanitation infrastructure and US$505 million for storm water infrastructure. The cost of phase one is around US$280 million for storm water, with a first tranche of around US$220 million.

16. **In addition to the District of Abidjan, secondary cities within Côte d’Ivoire are also in dire need of investment in drainage infrastructure.** Some of these cities have already undertaken drainage improvement projects, and others are in the initial feasibility and planning. These include: Soubré, Séguela, San Pedro, Daloa, Man, Grand-Bassam, Bouaké, Dimbokro, Abengourou, Yamoussoukro, Gagnoa, and Korhogo. The total estimated investment for studies and design of drainage infrastructure in secondary cities is estimated at US$3.3 million, and the construction cost for the infrastructure in these cities is estimated at US$310 million.

*Solid waste management*

17. **Ivorian cities urgently need to tackle solid waste, including overflowing collection centers and proliferating open dump sites.** Along with storm water management issues, Abidjan’s post flood assessment clearly identified solid waste as one of the most aggravating factors contributing to recurrent flooding and therefore a key sector for addressing urban flooding. During the past decade, cities have increased their daily solid waste production, but collection rates have not kept pace, worsening public health and safety hazards.

18. **In 2018, Côte d’Ivoire produced over 4 million tons of solid waste of which 2.5 million tons were uncollected.** Because of low formal collection rates, open dumping and burning are commonly used to eliminate remaining household waste. Even formally collected waste is disposed of at unsanitary dumpsites without processing. Access to waste collection and treatment is uneven across regions. Existing collection services are irregular and unreliable (especially in secondary and peripheral municipalities) and with no sanitary landfill, open dumping and burning are prevalent. In 2018, the collection rate in Abidjan was estimated at only 48 per cent. After launch of new private concessions at the end of 2018, this rate has increased sharply to about 85% after one year of operations. However, in secondary municipalities the current collection rate remains at 40 percent and waste management is rudimentary and sporadic.

19. **At the institutional level,** solid waste management in Côte d’Ivoire is overseen by the National Waste Management Agency (ANAGED) which is a public industrial and commercial establishment (EPIC) created on October 25, 2017. ANAGED oversees the management of all types of solid waste, including disposal of hazardous waste and medical waste. ANAGED is placed under: the technical and administrative
supervision of the Ministry of Sanitation (MINASS) and the financial supervision of the Ministry of the Economy and Finance. Thus, from an institutional stance, the Government has given a strong message about the public service vocation in the solid waste management.

20. To deal with the hazardous situation in the District of Abidjan, the National Government has worked with the private sector to modernize and improve solid waste management. In 2018, the Ministry of Sanitation (MINASS) launched international tenders to contract private international operators for provision of solid waste management services in thirteen (13) municipalities of the District of Abidjan (villages and peripheral municipalities are not included). Currently, two international operators (with a 7-year contract) are in charge of collecting and transporting solid waste of three sectors, covering (geographically) most of the urban agglomeration of Abidjan, to a single landfill. A third 7-year concession was awarded to a private operator for the construction and operation of a landfill in Kossihouen (north west of Abidjan) for the treatment of 1,250,000 ton/year. The entire investment for this contract is provided by the private sector against the repayment (both CAPEX and OPEX), by the Government, of a fixed portion relating to the investment (monthly fixed payment) and a remuneration per ton received at the landfill. Revenues for the sector are provided by the national budget through a portion of a set of taxes (IPF, IRF, TVHA, TEOM, TSCP, TSPE, among others) which covers operating costs for collecting, transporting and operating the consolidation points and the transfer centers, as well as cleaning costs. Current concessions include a three-month renewable guarantee on operating costs and guarantees the investment of the landfill.

21. Additional Public-Private Partnerships should further unleash the potential of private sector financing, and demand-responsive SWM services, including solid waste valorization. The Government’s ambition for integrated and sustainable SWM cannot be financed and supported by the public sector alone. Global experience shows that private sector participation in solid waste infrastructure and service provision, if done properly, can leverage investment by orders of magnitude and greatly improve service provision – as is already evident by the successful first efforts described above. The Government will need to take even bolder steps to level the playing field and unlock the potential of the private sector for further improvements in the SWM sector’s performance, sustainability and geographically coverage, while managing public perception. The Government, through the proposed Project, will seek to attract further private investment in the solid waste sector by: (i) engaging the service of an international firm as a PPP transaction advisor; (ii) ensuring more balanced allocation of responsibilities and risks in the tender documents; and (iii) considering de-risking measures, such as guarantees, necessary to incentivize strong private sector participation in SWM. Moreover, the Project will support waste valorization initiatives, including reuse, recycling, composting, etc., which will reduce the huge amount of waste going to landfill (currently only small-scale waste valorization activities are in place). Amongst other initiatives, the Project will support the SWM system in the Abidjan District by completing the envisioned system with transfer centers and a second disposal and recovery facility, to supply the areas not covered by the current concessions and reduce the massive amount of waste currently transferred to the existing landfill in Kossihouen.
Institutional capacity and digital technologies

22. Although the deficits in drainage and solid waste management infrastructure are a main cause of flooding, the situation is worsened by the fact that even current infrastructure is not performing at the expected level with issues of poor maintenance, purposeful clogging with waste, occupation of rights of way, and natural factors (landslide, silting). Simply adding more infrastructure will not resolve the flooding issue alone, it also requires regular maintenance of current infrastructure, enforcement of zoning, and development of future infrastructure, all using an evidence-based approach, coordinated across all relevant institutions.

23. Currently the lack of use of information systems, and institutional coordination for planning and operations, are preventing an effective and efficient use of resources. This is particularly important for an environment as complex as Abidjan with multiple and intricate interactions between sectors, people, and the urban space. The baseline can be described along the lines of four main pillars: institutional arrangements; standards; data; system integration; which can be described as follows: (i) no institutional framework for foundational and sectoral data management; (ii) no regulation of mandates or responsibilities, making data access, data sharing, and usage difficult for governmental agencies or other stakeholders; (iii) data is not exploited in sectoral operational structure; (iv) systems are being developed or planned with limited integration and for specific sectors, such as drainage or urban planning, or part of them only. However, none of the systems are operational or embedded in institutional business processes. These systems will need to be implemented while incorporating technological and institutional mechanisms to ensure data can be exchanged smoothly and dynamically and in an integrated fashion across sectors.

24. Other examples such as the “Eco-quartier” (Eco-neighborhood), a large District-led land valorization initiative, or the support to local startups by the Ministry of ICT demonstrate that Abidjan and Côte d’Ivoire are in a position to leverage digital development opportunities to increase the impact of urban development interventions overall.

Addressing flood risk by enhancing urban resilience – climate adaptation and mitigation

25. The proposed project aims to address current and future flood risk in the city of Abidjan and selected secondary cities, by: (i) improving storm water management capacity through construction/rehabilitation of primary and secondary drainage systems; (ii) improving and scaling-up the collection, transfer, disposal and valorization of solid waste management, which is a direct cause of flooding; (iii) enhancing digital technologies and building institutional capacity for improved urban services and planning, including early warning systems. These actions will enhance urban resilience to climate change and disaster risk, by providing better planning, reducing impacts of extreme events and facilitating faster recovery from these events. The Project will provide significant climate adaptation (to increased weather and climate variability and sea level rise) and mitigation (better management of waste – which is often burned - and reduced traffic congestions due to reduced high frequency flood events and road upgrading) with a particular focus on gender issues, empowering women and youth.
C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

26. The development objective of the project is to (a) reduce vulnerability to flooding in selected urban areas; and (b) improve solid waste management in targeted municipalities.

Key Results

27. The progress towards achieving the PDO would be assessed by the following proposed results indicators:
   • Number of residents protected against flooding (number, gender disaggregated);
   • Number of people provided with access to improved solid waste services (number, gender disaggregated)

D. Project Description

Component 1: Flood risk mitigation infrastructure and services (US$181 million)

28. This component focuses on mitigating the negative impacts of recurrent flooding through a hybrid approach that combines green and grey infrastructures, including urban drainage and associated roadworks, and nature-based solutions for erosion control and water retention. It also includes “soft” measures like flood early warning systems (EWS) and urban planning. The component is implemented through four sub-components.

Sub-component 1.1 - urban drainage and associated roadworks

29. The recently completed District of Abidjan Sanitation and Storm Water Master Plan (Schema Directeur d’Assainissement et de Drainage du District d’Abidjan) identified infrastructure gaps for stormwater and waste water management in the District. The Master Plan is organized in phases of implementation based on priority criteria. The Bank, through this component of the project, will contribute to the implementation of Phase 1 of the Master Plan, with a specific focus on reducing flood risk in vulnerable communities of the District of Abidjan. Moreover, it will provide interventions in other secondary cities vulnerable to flooding, such as Grand Bassam, Bouake and others. Specifically, activities under this subcomponent include:
   a) Construction/rehabilitation of primary and secondary drainage in selected vulnerable neighborhoods of the District of Abidjan, and in targeted areas of Grand Bassam, Bouake and other selected secondary cities;
   b) Construction/rehabilitation of roadworks associated with drainage works where feasible and needed;
   c) Development of selected water retention areas to reduce floods during rainfall period.

30. Moreover, the component will support the establishment of sustainable O&M mechanisms for drainage infrastructure including using digital technology to monitor and manage the maintenance of the storm water management systems and the development of new Sanitation and Storm Water Master Plans.

2 The District of Abidjan Sanitation and Storm Water Master Plan was completed and approved in May 2018.
for 5 district capital cities and associated detailed technical studies for priority investments. The project will support the implementation of a mechanism adapted to the needs of the sector's institutions and set up with the target populations. To achieve this output, stakeholder consultations will be undertaken throughout project implementation to ensure greater ownership of the mechanism. Specifically, the project will support studies, goods and services to cope with the current environment and its needs and to implement an efficient and sustainable system.

Sub-component 1.2 - nature-based solutions for erosion and landslide control

31. Nature based solutions are effective in reducing flood risk while providing environmental and socio-economic benefits. They can improve environmental quality by restoring green spaces in cities, providing recreational opportunities for citizens, lowering temperatures and pollution in urban areas, and finally optimizing the cost of infrastructure investment. Within the District of Abidjan, many green spaces originally dedicated to urban water management are now degraded. For example, canal banks are often abandoned, polluted or occupied. This amplifies erosion processes which cause sedimentation of sand in adjacent canals. Moreover, it favors the accumulation of garbage which is washed away during precipitation events, exacerbating flood risks in already vulnerable area. This sub-component will introduce the concept of nature-based solutions for flood risk management in selected project areas in the District of Abidjan, Grand Bassam and Bouaké and other selected secondary cities, and include:
   a) Revegetation and valorization of canal banks;
   b) Erosion control works for selected thalwegs prone to landslides and erosion, including revegetation works;
   c) Revegetation and double use of water retention areas with green spaces and leisure areas;
   d) Construction/rehabilitation of micro water retention areas following nature-based approaches in available selected areas such as parks, parking lots, sidewalks, and playing fields.

Sub-component 1.3 – emergency preparedness and early warning system

32. To complement the structural investments, and have a comprehensive flood management approach, this sub-component will reinforce the capacity of the institutions and population to prepare for and to manage flood emergency to avoid losses in the events where structural approach are not sufficient. It is one of the most effective way to reduce loss and damage from disaster (reaching benefit-cost ratios between 4 and 36\(^3\)). Specific activities will include:
   a) deployment of a flood risk early warning system (EWS) and emergency preparedness measure in selected cities (around 3) to collect and communicate hydro-meteorological information, warning and alert, and support real-time intervention management. This includes emergency measures (e.g. contingency plans at municipal level) and strengthening response capacity.
   b) capacity building targeted toward most vulnerable groups (e.g. disabled) to reinforce awareness of disaster risk, knowledge for behavior change, and ability to cope with emergencies.

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\(^3\) A Cost-Effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-Meteorological Services, Early Warning, and Evacuation, Stéphane Hallegatte, Policy Research Working Papers. May 2012
activities respond to needs identified during the 2018 PDNA particularly on: (i) raising public awareness through information campaigns, plans and trainings on DRM issues such as flooding and landslides (ii) setting up local networks of female leaders for DRR and waste management; (iii) organizing trainings on early warning systems share risk information in real time.

**Sub-component 1.4 – resilient urban planning**

33. The objective of this sub-component is to prevent the creation of new risks as the cities develop and the pressure from rapid urbanization further intensifies and drive development in unsafe areas by enabling resilient planning, and integration of risks in all sectors, particularly, in land management to avoid the encroachment of non-constructible areas and the public domain of the State. It will focus on integrating resilience in urban planning by developing studies, and skills in resilient urban planning. These activities will be underpinned by investment in digital technology and data that will provide the foundation for better urban planning.

Specific activities to be supported by this sub-component include:

a) Studies and plans including i) preparatory studies and community engagement for preventive resettlement, and slum upgrading for communities at risk ii) detailed urban plans integrating flood risk management for 5 municipalities of the District of Abidjan iii) studies to plan integrated resilient urban development in specific neighborhoods of Abidjan and secondary cities with a lens on potential private capital mobilization to build flood mitigation measures.

b) Foundational digital data, systems, and skills to support data driven resilient spatial planning through activities such as: i) a strategy for geospatial data management in Abidjan and two secondary cities; ii) urban digital platforms with a common municipal data repository to facilitate data sharing between stakeholders, including in two secondary cities, the acquisition of digital elevation model and aerial imagery, and the digitization of parcels and ownership data, with the attribution of parcel unique ID (this work is already financed for Abidjan); iii) the associated capacity building programs.

**Component 2: Improvement of solid waste management infrastructure and services (US$124 million)**

34. Trash accumulating along waterways prevents the flow of rainwater and is a major cause of flooding. As long as trash collection remains spotty, flooding will continue affecting people living in poor neighborhoods disproportionately. The component aims to help further improve the solid waste management system in the District of Abidjan, expand the model to other secondary cities, and optimize the systems through better governance, reducing waste quantities buried, and use of digital technology. The Component is divided into three Sub-Components, the first focused on the delivery of key facilities and equipment, the second on capacity building and institutional strengthening, the third on improving the system performance.

**Sub-component 2.1 - strengthening solid waste management capacities in the District of Abidjan and two selected inter-communal groups of secondary cities.**
35. To improve solid waste services for citizens in selected municipalities, this sub-component will finance solid waste management facilities and equipment needed to establish or improve (where it already exists) the delivery of solid waste management services in the District of Abidjan and two inter-communal groups of secondary cities.

Sub-component 2.2 - Strengthening sector governance, institutional capacity

36. This subcomponent aims to strengthen the institutional framework governing the sector to ensure the effectiveness of investments under subcomponent 2.1, by creating a favorable environment for private sector investments in the solid waste sector. It will also support the strengthening of instructional capacity to plan and manage the solid waste system and contribute to citizen engagement and awareness.

37. Activities of this subcomponent will comprise:

   a) Operationalization of the existing laws and regulations governing solid waste management, through ensuring: (i) effective municipal and intercommunal planning for SWM; (ii) the availability of financial resources for secondary cities waste collection; and (iii) an increase in local solid waste taxation to strengthen the sector’s self-financing capacities and sustainability.

   b) Technical assistance seeking to: (i) strengthen the institutional framework through a range of activities from legal support to capacity building; (ii) promote a sustainable financing mechanism for the sector, including support for carrying out surveys and tax databases for solid waste fees/taxes; (iii) reinforce the PPP framework, with the standardization of key bidding documents and contracts; and (iv) enhance solid waste service delivery by (a) promoting private sector participation in SWM and optimizing the upstream value chain of waste collection and transportation in view of overall services improvement and their effective linkage with the newly established downstream infrastructure; and (b) tailoring capacity building activities to participating municipalities to support them in managing the newly established SWM system, including preventing marine litter in the District of Abidjan.

Sub-component 2.3 – Improving solid waste management through citizen engagement, recycling, reuse, composting and digital technology

38. Activities of this subcomponent will comprise:

   a) An outreach program to sensitize and improve public behavior on solid waste and litter management, which will, among other results, reduce solid waste in the drainage network. The activity will adopt a participatory and inclusive approach with citizens, communities and NGOs (with a particular focus on women’s organizations), who will be engaged throughout the project for implementation and monitoring of results.

   b) A strategy to develop and operationalize best practices in waste reduction, recycling, and circular economy including the identification of 3-4 value chains with high potential for recycling
and circular economy opportunities within the context of Côte d’Ivoire.

c) A gender-focused training program to develop the skills of small and medium enterprises on relevant recycling tools and techniques as well as on entrepreneurship skills focusing on the most profitable and relevant value chains.

d) Technological tools to be used by national agencies, municipalities and citizens to allow better monitoring and control of solid waste management services. It will involve the use of technologies such as geolocation, web applications and smartphones to collect operational information; measure and monitor performance of service providers; plan and communicate on service quality.

**Component 3 - Project Management Support (US$10M)**

39. Activities of this component will comprise: (i) technical assistance, equipment, training and operating costs for the Project Coordination Unit (PCU) and Specialized Implementation Agencies (SIAs), including establishing and implementing a comprehensive monitoring and evaluation (M&E) system including geospatial data, training of the implementing agencies in environmental and social management, grievance redressal, procurement and financial management.

**Component 4: Contingent Emergency Response Component (CERC) (US$0 million)**

40. This Contingent Emergency Response Component (CERC) is included under the project in accordance with Bank Policy Investment Project Financing, paragraphs 12 and 13, for situations of urgent need of assistance, as a project-specific CERC. Given the increasing climate risks in Côte d’Ivoire, particularly the risks of flooding and drought, the Government may request the World Bank to reallocate project funds to support mitigation, response, recovery, and reconstruction. Therefore, it is advisable to have a contingent component to prepare for quick responses to emergencies. This will allow for rapid reallocation of project funds in the event of a natural or artificial crisis during the implementation of the project.

<table>
<thead>
<tr>
<th>Legal Operational Policies</th>
<th>Triggered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects on International Waterways OP 7.50</td>
<td>No</td>
</tr>
<tr>
<td>Projects in Disputed Areas OP 7.60</td>
<td>No</td>
</tr>
</tbody>
</table>

Summary of Assessment of Environmental and Social Risks and Impacts

41. Environmental and Social Risk Classification (ESRC) conducted at the Concept Stage under the new Environmental and Social Framework (ESF) rated the project overall risk as HIGH and environmental and social standards which are relevant for the project are: Assessment and Management of Environmental
and Social Risks and Impacts (ESS 1), Stakeholder Engagement and Information Disclosure (ESS 10), Labor and Working Conditions (ESS 2), Resource Efficiency and Pollution Prevention and Management (ESS 3), Community Health and Safety (ESS 4), Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS 5), Biodiversity Conservation and Sustainable Management of Living Natural Resources (ESS 6) and Cultural Heritage (ESS 8).

42. The social risk assessment on the project shows that there will be potential negative social impacts relating to the loss of assets (land, infrastructure, trees, etc.) and/or the reduction of means of production, the loss or restriction on sources of income, etc. The legal and legislative framework for expropriation, land acquisition, resettlement and stakeholder consultation has been defined in accordance with national laws and the Bank’s environmental and social framework guidelines. Thus, for all of sites that will receive the investments, social assessments will be carried out to identify potential social impacts and risks. Whenever necessary, Resettlement Action Plans will be prepared and implemented before the start of works.

43. The environmental assessment of civil works has shown that the project will deal with three main challenges. These are the land issue, the anarchic occupation of urban space by the populations after the displacement of the populations from the easements of the canals to construct, and the maintenance of sanitation structures once they have been completed.

E. Implementation

Institutional and Implementation Arrangements

44. In line with the Bank’s policy to host sectoral projects in the relevant sectoral ministries and thus strengthen their capacities, the Ministry of Sanitation will be the main implementing agency. Therefore, the institutional arrangement of the project will be composed of: (i) a Steering Committee; (ii) a light Project Coordination Unit (PCU) located in the MINASS and hosted by the DGAS, to ensure the coordination of the implementation and day-to-day management of the project; and (iii) a set of specialized implementing agencies.

45. The Steering Committee will be chaired by the Minister of Sanitation (MINASS) or his representative and will include, among others, the following ministers or their representatives: the Minister of Economy and Finance; the Secretary of State to the Prime Minister in charge of Budget and State Portfolio; the Minister of Construction, Housing, and Urban Planning; the Minister of Digital Economy, the Minister of Cities, the Minister of Territorial Administration and Decentralization, the Governor of the District of Abidjan; the Head of UVICOCI (Union des Villes et Collectivités de Côte d’Ivoire) and the mayors or representatives of involving municipalities. The Steering Committee will provide overall supervision of the project, ensure coherence of activities with the sector strategy, and convene inter-sectoral coordination for the subcomponents of other ministerial departments. The committee also validates annual budgeted work plans (ABWPs).
46. **A Project Coordinating Unit (PCU)**, hosted by the DGAS will be created within the Ministry of Sanitation (MINASS). The PCU will manage the project at the central level, coordinating overall project implementation in various locations, ensuring the timely availability of fund transfer, maintaining project accounts and producing financial reports, monitoring and evaluating program implementation and impacts, and reporting results to various stakeholders. It will be headed by a competitively-recruited Project Coordinator who will be in charge of the day-to-day project management, communicating with IDA, Government and all stakeholders of the project, and overseeing project monitoring and evaluation (M&E). In addition, the PCU will include, among others (i) a Procurement Specialist (with extensive experience in engineering works and contract management); (ii) a Communications Officer; (iii) a Drainage Engineer; (iv) a Solid Waste Management Specialist; (v) a Digital Technology specialist; (vi) a Financial Management Specialist; (vii) an Accountant; (viii) an Environmental Safeguards Specialist; (ix) a Social Safeguards Specialist; and (x) a Monitoring and Evaluation expert. The PCU will have specific performance criteria to ensure knowledge transfer from the PCU to the staff in the Ministry of Sanitation. The PCU will have to rely for the implementation of the project on Specialized Implementation Agencies (SIAs).

47. **Specialized implementation Agencies (SIAs)**. The technical management of each component will be coordinated by the main beneficiary structure of the activity, called a Specialized Implementation Agency (SIA) in its mandate. Delegated management contracts will therefore be signed between the Project Coordination Unit and these agencies.

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07-Apr-2020