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# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

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Concept Stage | Date Prepared/Updated: 19-Oct-2017 | Report No: PIDISDSC19875



**BASIC INFORMATION**

**A. Basic Project Data**

Country Cote d'Ivoire	Project ID P160418	Parent Project ID (if any)	Project Name Digital Solutions for Sustainable Development (P160418)
Region AFRICA	Estimated Appraisal Date Oct 02, 2017	Estimated Board Date Feb 12, 2018	Practice Area (Lead) Transport & ICT
Financing Instrument Investment Project Financing	Borrower(s) Republic of Cote d'Ivoire	Implementing Agency Ministry of Digital Economy and Post	

**Proposed Development Objective(s)**

To improve access to affordable broadband in rural communities and leverage electronic platforms to improve farm productivity and access to markets.

**Financing (in USD Million)**

Financing Source	Amount
International Development Association (IDA)	50.00
<b>Total Project Cost</b>	<b>50.00</b>

Environmental Assessment Category B-Partial Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
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**Note to Task Teams:** End of system generated content, document is editable from here.

Other Decision (as needed)



## B. Introduction and Context

### Country Context

- Côte d'Ivoire is a lower-middle-income economy with a widening urban/rural gap that hinders the achievement of shared prosperity and poverty elimination** – With a population of 22.7m, the Gross National Income per capita (Atlas method) was US\$ 1,420 in 2015, which is 13% lower than the Sub-Saharan Africa (SSA) regional average (US\$ 1,637). Around 54% of its population lives in urban areas, and the population and the economy are highly concentrated around the economic capital Abidjan. Rural population in Cote d'Ivoire has increasingly suffered from poverty during the last 25 years<sup>1</sup>. Rural poverty has significantly increased since the end of the 1980s, and the rural/urban gap has widened. 57% of the rural population is below the national poverty line, whereas this rate is 21 percentage points lower for the urban population (36%) and the Northern regions are the most afflicted. The widening gap between the North and South of the country help explain why Côte d'Ivoire still stands at the 172<sup>nd</sup> place in the world in the most recent global UNDP-HDI ranking (2016). The rural population suffered and still suffers from political crises, deterioration of governance and social services, and unstable revenues. At least three main challenges explain the increase in rural poverty over the past 25 years: (a) political crises; (b) deterioration of governance and social services; and (c) unstable revenues.
- The country suffered from a period of civil war from 2002-2004, and a post-election crisis and armed conflict from late 2010 to April 2011, that disrupted the economic, social and political cohesion of the country** – Côte d'Ivoire enjoyed decades of strong economic growth, but the country underwent a series of violent political and economic crises during 1999 to 2011 that led to a significant deterioration of living standards. The dismal Gross Domestic Product (GDP) growth rates during this period reflect the impact of the crises: on average -1.2% during 1999-2003 compared to 3.9% for SSA, 2.0% during 2003-2010 compared to 5.2% for SSA, and -4.4% for 2011. However, since mid-2011, the country has made significant progress in consolidating political stability and post-crisis economic recovery has proceeded at a rapid and sustained speed. Sound macroeconomic management combined with public and private investments have underpinned improved economic growth: GDP growth rate is on average 9.5% during 2011-2015 (4.3% for SSA).
- The rural population has suffered from deterioration of governance and cuts in expenditures in social services as well as poor infrastructure** – Since the political crises of the year 2000s, the rural population has suffered from a combined deterioration in: (i) the governance structure;<sup>2</sup> and (ii) cuts in health and education expenditure under structural adjustment programs that aimed at reestablishing macroeconomic stability.<sup>3</sup> The infrastructure gap between the more affluent urban areas and the poor rural areas is compelling: 33% of the urban population has access to improved sanitation facilities compared to 10% of the rural population; 88% of the urban population has access to electricity compared to 29% of the rural population.<sup>4</sup> For ICT, 16% of households in urban areas has access to the internet compared to only 2% in rural areas.<sup>5</sup>
- Unstable revenues and poor productivity of the rural economy, especially for agriculture, hinders poverty reduction** – The agriculture sector is an important driver of Côte d'Ivoire's economy, accounting for 22% of GDP and more than 75% of exports. Three out of four working adults living in rural areas are employed by the

<sup>1</sup> World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015 (pp.ix-x); IFAD, [Rural poverty in the Republic of Côte d'Ivoire](#).

<sup>2</sup> "Good governance encompasses, *inter alia*, concrete measures against corruption, an improved public administration, and – as emphasized by stakeholders – enhanced access to justice, and more transparent and predictable relations between government and the private sector." (World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015, p.xvii).

<sup>3</sup> World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015 (p.x).

<sup>4</sup> World Bank, World Development Indicators (most recent year is 2015 for sanitations facilities – cf. [Table 3.12](#) – and 2012 for electricity).

<sup>5</sup> Gallup Survey, 2015.



agriculture sector<sup>6</sup>. Despite its critical importance to the economy, the sector has had only a modest impact on income growth and poverty reduction in rural areas. The agriculture sector – and especially primary products – are highly sensitive to fluctuations in international prices which in turn have an adverse and volatile impact on revenues for rural households.

5. **To tackle these challenges, the country has implemented reforms that have significantly contributed to an overall improvement in governance and the business environment, making the country more attractive to private investment** – The country has been a relatively weak performer on the World Bank Ease of Doing Business Index DBI (global rank at 142<sup>nd</sup> out of 189 countries in 2016<sup>7</sup>). Nevertheless, the business environment has improved significantly during the last five years – from 177<sup>th</sup> in 2013 to 142<sup>nd</sup> in 2016 based on DBI – making Cote d’Ivoire one of the ten fastest reforming countries two years in a row (2014 and 2015). The World Economic Forum (WEF) Global Competitiveness Index also capture this improvement, whereby Côte d’Ivoire rose from 131<sup>st</sup> in 2012 to 91<sup>st</sup> in 2015. The authorities will remain focused on improving crucial infrastructure, particularly in the energy and transport sectors, but increasing attention will turn to investment in communications infrastructure, as well as the education and healthcare system. They will continue to look abroad to finance much of the sizeable infrastructure investment that is underway.

## Sectoral and Institutional Context

### B.1 Rural economy and rural agriculture sectoral

6. The rural economy is dominated by the agriculture sector, which is mostly made of: (i) export-oriented cash crops; and (ii) food crops and animal and fish production for domestic consumption – The cash crops subsector is made of cocoa, coffee, rubber, oil palm, cotton, and cashews. Cote d'Ivoire is the world's largest producer and exporter of cocoa beans and a significant producer and exporter of coffee and palm oil. Cash crops benefit from the bulk of agricultural investment and usually involve more sophisticated production techniques. Cash crops suffer from limited value chain integration among farmers, intermediaries and processors, which prevents the country from increasing downstream transformation of its food production. Cash crop agriculture is potentially lucrative, but it also entails considerable risk, as volatile international commodity markets determine export prices. The food crop subsector is made of plantains, yams, cassava, maize, rice, and livestock. It is characterized by traditional practices and receives little support from either the public or private sectors (except for rice and maize). The relatively strong performance of the food crop subsector is critical to food security in Côte d’Ivoire and has enabled the country to become self-sufficient in most key staple crops (except for wheat, rice and dairy). This subsector is often neglected in agricultural research and sector development strategies, and thus food production tends to be small-scale, traditional, and mostly informal. Nevertheless, prices of food crops are less impacted by international price volatility, and compared to cash crops often represent greater economic security but tend to offer more limited returns.
7. **The traditional food crops are mostly produced in the poorer Northern regions, whereas the cash crops are produced in the richer Southern regions** – Adding to the North/South social and economic disparities, the country falls into two distinct agricultural regions: the dry savannah in the North and the forest region in the South. Rural poverty has traditionally been significantly higher in the North – where the potential for agriculture has not yet been realized – whereas the South benefits from higher and more reliable rainfall and better soils and produces most of the export crops. However, both the North and South suffer from low

<sup>6</sup> World Bank, Côte d’Ivoire SCD – From Crisis to Sustained Growth, 2015 (p.xiii); at a national level (urban and rural population), half of the population is employed by the Agriculture sector.

<sup>7</sup> World Bank, [Ease of Doing Business in Côte d’Ivoire](#), 2016.



agricultural productivity, high cost of inputs, considerable post-harvest losses, inadequate use of modern farming techniques, lack of modernization and mechanization, all contributing to a decline in agricultural production.<sup>8</sup>

8. **Rural economy, and especially rural agriculture, suffers from five gaps crippling economic productivity and related to: (i) Enabling environment; (ii) Access to land; (iii) Access to finance; (iv) Skills and technology; (v) Physical capital** – Poor performance in agriculture undermines shared prosperity and poverty elimination, with five major gaps hindering the development of the rural agriculture sector:<sup>9</sup>

- a. **Gap #1: Lack of accurate data and enabling environment gap** – The agriculture sector lacks good and accurate data; for example, the latest available National Agricultural Census is now 16 years old (2001). The lack of accurate data hinders the elaboration and implementation of sound policies and strategies, and prevents the design and conduct of impact evaluation research.<sup>10</sup> The agriculture sector also suffers from an inadequate national and foreign investment framework, and the sector is still severely disadvantaged by a distortive policy framework (taxes on export commodities), coupled with a strong urban bias in development spending.
- b. **Gap #2: Access to land gap** – Lack of access to land is a major cause of rural poverty in SSA, and Cote d'Ivoire is no exception. Small-scale producers of food crops have access to about half the amount of land available to large-scale producers of export crops and they suffer from low productivity because of the small size of their lands.<sup>11</sup> The 1998 Law on Rural Land required farmers to register their land within ten years, but very few farmers had the knowledge, means, and skills to do so. A new Law in August 2013 extended the deadline by ten years, and as of 2014 only 0.09% of the total agriculture land is registered (i.e. 20k out of 23m hectares). Food insecurity risk is twice higher for farmers not owning property than for land owners<sup>12</sup> and lack of land certificates is worse for women farmers who face additional gender-related constraints, including legal or social norms that prevent them from inheriting or simply owning land.
- c. **Gap #3 – Access to finance gap** – Cote d'Ivoire is one of the least developed countries in the region for rural development finance, and there is a lack of financing services for the agriculture sector. Access to credit by small farmers is acutely limited due to the virtual absence of financing structures such as rural microfinance institutions and rural banks. Moreover, private banks are reluctant to provide loans to rural small-scale farmers as they see them as cumulating too many risks: low levels of capitalization, unstable revenue flows, lack of formal credit history, difficulty in evaluating small farmers' repayment capacity, lack of collateral such as titled land, the influence of exogenous factors such as weather conditions, and the limited legal avenues for enforcing contracts. Where credit is available, interest rates are often too high compared to the average rate of return of farmers' investments. This translates into a low bank account ownership rate and a low percentage of adults having the possibility to benefit from a mortgage. The financing obstacle faced

<sup>8</sup> World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015 (p.54).

<sup>9</sup> ECOWAS-UEMOA-CILSS, Alliance Globale pour l'Initiative Résilience AGIR, Rapport des Priorités Resilience Pays (PRP) Côte d'Ivoire, 2014 ; World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015 (p.55-66).

<sup>10</sup> Without much sector impact analysis, the sector has been subjected to ineffective policies including high indirect and direct taxes on export commodities which have prevented small farmers from earning more revenues: the 2015 World Bank SCD calculated that a 10 percent decrease in the export tax would boost net revenue by 22 percent, which in turn would improve the living conditions of roughly 4 million Ivoirians.

<sup>11</sup> IFAD, [Rural poverty in the Republic of Cote d'Ivoire](#), accessed in January 2016; World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015, (p.55): "Agriculture in Cote d'Ivoire is dominated by smallholder farmers, the majority of whom use traditional practices and rely on family labor. Data from the most recent Agricultural Census (2001) estimated that there are 8.3 million farmers nationwide, of whom 49 percent are women. The average cultivated area for each household is about 3.89 hectares, but 80 percent of households cultivate less than 2 hectares." ( ).

<sup>12</sup> ECOWAS-UEMOA-CILSS, Alliance Globale pour l'Initiative Résilience AGIR, Rapport des Priorités Resilience Pays (PRP) Côte d'Ivoire, 2014.



by the agriculture sector in Cote d'Ivoire is thus similar to the rest of SSA: only about 1% of commercial lending in SSA goes to agriculture, mostly to large-scale farmers.<sup>13</sup>

- d. **Gap #4 – Skills and technology gap** – In 2011, 62% of teenagers in the Northwest region were unschooled compared to the national average of 42%, and only 8% of young people aged 15-24 completed their secondary education compared to the national average of 27%.<sup>14</sup> The combination of low level of education and other gaps highlighted above (such as access to finance) leads to a low usage of technology and agriculture inputs – such as equipment and fertilizers. Several market failures characterize inputs markets, including: inconsistent rules and standards requirements, unrealistic standards, and lack of equipment and capacity at the rural level to ensure compliance. Moreover, the cost of technology and agriculture inputs for smallholders tend to be too high due to several factors<sup>15</sup>: (i) weak bargaining power of smallholders; (ii) poor transportation and energy infrastructure; (iii) lack of market information; (iv) lack of knowledge of farmers concerning the use of inputs; and (v) limited access to finance.
- e. **Gap #5 – Physical capital gap** – While several crops such as cashew (*anacarde*), maize and tomatoes are produced in the Northern regions, principal markets destinations are located in the Southern regions, including the port of Abidjan for exports and urban domestic markets which sometimes offer greater opportunities to smallholders than export markets<sup>16</sup>. This implies that an efficient transportation network must be available throughout the whole territory to link production areas to: (i) the port of Abidjan international output market; and (ii) the domestic consumption areas spread around the country. Hence, having reliable infrastructures – such as road networks, storage facilities, electricity, and telecommunications – is essential to the efficiency of the agriculture sector. However, Cote d'Ivoire's rural infrastructure needs additional investments to be rehabilitated and extended. Currently, as much as 90% of the paved network in Cote d'Ivoire is between 15 to 40 years old, while routes coatings are generally designed and built for a lifetime of 15 years<sup>17</sup>; as a consequence, about 40 percent of the road network is not or only partially useable.<sup>18</sup> In addition to the lack of reliable roads, the lack of efficient public transportation services also hinders the economic development of rural agriculture: smallholders often use public transportation such as passenger buses to take their products to distant markets, and this inadequate transportation mode leads to bruising and damage to the products, thus reducing its quality and market value. The electricity network is no better as all departments of the Northern half of the country had coverage rates below the national average in 2011. Among them, five departments had less than 15% of their localities connected to electricity<sup>19</sup>. The lack of reliable electricity is an impediment to well-functioning rural markets as limited access to storage facilities and unreliable electricity supply result in post-harvest losses. Most farmers often rely on open-air storage and need to sell quickly their products – sometimes at a significantly low price – before it rots.
9. **Several public and private institutions drive the agriculture sector, generating a fragmented knowledge and negatively affecting the efficiency of the government's action on the sector; the sector would thus strongly benefit from a stronger coordination for data and knowledge gathering, sharing, and dissemination** – The

<sup>13</sup> UNCTAD, Commodities & Development Report, 2015 (p.21).

<sup>14</sup> African Development Bank, Cote d'Ivoire Economic Outlook, 2015 (p.14).

<sup>15</sup> UNCTAD, Commodities & Development Report, 2015 (p.19).

<sup>16</sup> In Cote d'Ivoire transactions in local urban markets for staple foods represented about \$1.1 billion compared with revenue of \$0.63 billion from exports in 2009 (cf. UNCTAD, Commodities & Development Report, 2015, p.22).

<sup>17</sup> African Development Bank, Cote d'Ivoire Economic Outlook, 2015 (p.14).

<sup>18</sup> World Bank, Côte d'Ivoire SCD – From Crisis to Sustained Growth, 2015 (pp.58-59).

<sup>19</sup> African Development Bank, Cote d'Ivoire Economic Outlook, 2015 (p.14).



agriculture sector is jointly supervised by the *Ministère de l'Agriculture et du Développement Rural* (MINADER) and the *Ministère des Ressources Animales et Halieutiques* (MIRAH), with the strong implication of the *Ministère des Eaux et Forêts* (MINEFF) and the *Ministère de l'Environnement et du Développement Durable* (MINEDD). The MINADER and MIRAH both have their own internal statistics and planning department: the *Direction Générale de la Planification, du Contrôle des Projets et des Statistiques* (DGPPS, at MINADER) and the *Direction de la Planification, des Statistiques et des Programmes* (DPSP, at MIRAH). The MINADER and MIRAH also supervise – with other ministries – several public institutions in charge of agriculture and rural development, including the *Agence Nationale d'Appui au Développement Rural* (ANADER), the *Centre National de Recherche Agronomique* (CNRA), the *Fonds Interprofessionnel pour la Recherche et le Conseil Agricole* (FIRCA), the *Office National de Développement de la filière Riz* (ONDR), and the *Office d'Aide à la Commercialisation des Produits Vivriers* (OPCV). Several branches of agriculture also have their own organizations, including the *Chambres d'Agriculture de Côte d'Ivoire*, the *Association Nationale des Organisations Professionnelles Agricoles de Côte d'Ivoire* (ANOPACI), the *Conseil Café Cacao* (CCC), the *Association des Professionnels de Caoutchouc Naturel de Côte d'Ivoire* (APROMAC), etc. The sector would thus greatly benefit from a stronger coordination in data and knowledge gathering, sharing, and dissemination.

- 10. To address the main gaps to fast and sustainable development of the agricultural sector, the Government has developed several strategies, including the National Agricultural Investment Program (NAIP) and the e-Agriculture Strategy** – The NAIP is the agricultural pillar of the country's National Development Plan (NDP). The first NAIP (NAIP #1) was a US\$4 billion program over the 2010-2015 period, aimed at promoting a diversified mix of strategic cash and food crops for growth and food security. It was organized around six programs: (i) crops productivity and competitiveness; (ii) development of agricultural supply chains; (iii) sector governance; (iv) capacity building; (v) sustainable management of fisheries; and (vi) rehabilitation of forest and wood industry. The government launch the update of the PNIA in October 2016 (PNIA #2) and the final release is expected in May 2017. The Government has also developed a comprehensive national e-Agriculture strategy in 2012, and updated it in 2014. This strategy has the aim of modernizing the country's agricultural sector and enhancing its productivity with an increase in the country's export of cocoa, coffee and other produce, and a decrease in food imports. The strategy requires suitable access to information services and data centers as part of an ICT package aiming to make real-time market information systems available via mobile phones and tablets. Finally, other sectoral strategies include: (i) the *Loi d'orientation agricole* (Loi n° 2015-537 du 20 juillet 2015); the *Stratégie Nationale de Développement de la filière Riz 2012-2020* (SNDR); the *Plan Stratégique de Développement de l'Élevage, de la Pêche et de l'Aquaculture* (PSDEPA 2014-2020); the *Stratégie Nationale de Développement de la Mécanisation Agricole* (SNDMA); and the *Programme National de Sécurisation du Foncier Rural* (PNSFR).

## B.2 Digital economy sectoral and institutional context

- 11. The ICT institutions and the enabling environment have drastically improved during the last five years thanks to the creation and revamping of key institutions and the introduction of new legal and regulatory frameworks** – Overall, the ICT enabling environment has drastically improved during the last five years. Each year, the World Economic Forum (WEF) performs a global ranking of the ICT sector in each country by measuring the Network Readiness Index (NRI). One sub-index of the NRI is the 'ICT Environment sub-index' reflecting both the 'Political and regulatory environment' and the 'Business and innovation environment'. In 2012, Côte d'Ivoire ranked as one of the worst country in the world regarding the 'ICT Environment sub-index', being at the 130<sup>th</sup> place (out of 142 countries). In less than 5 years, Côte d'Ivoire has risen at the 72<sup>nd</sup> place (out of 139 countries) in 2016 for the 'ICT Environment sub-index' (on the overall Network Readiness Index, Côte



d'Ivoire has risen from 122<sup>nd</sup> to 106<sup>th</sup> during 2012-2016): no other country monitored by the WEF has enjoyed such a drastic rank increase during the 2012-2016 period for the 'ICT Environment sub-index'.

12. **The major improvement of the international ranking of the ICT sector in Côte d'Ivoire is partly explained by several reforms lead by the five main institutions that drive and supervise the ICT sector** – The *Ministère de l'Économie Numérique et de la Poste* (MENUP) is the Ministry in charge of the ICT and digital economy in Côte d'Ivoire, and the MENUP has revamped the telecom law in 2012.<sup>20</sup> The legislation is now aligned with regional recommendations and covers major areas such as convergence, universal service, license and authorizations, relevant markets and market power, and consumer protection.<sup>21</sup> The National Regulatory Authority (NRA) is the *Autorité de Régulation des Télécommunications de Côte d'Ivoire* (ARTCI),<sup>22</sup> a fully-equipped NRA dealing with licensing, consumer protection, wholesale market regulation, and telecom spectrum management. The three main additional institutions are: (i) the *Agence Nationale du Service Universel des Télécommunications* (ANSUT) that ensures the implementation of universal service programs on behalf of the state and manage investment operations funded by the state in the field of ICT; the *Agence Ivoirienne de Gestion des Fréquences radioélectriques* (AIGF) focused on radio frequency management; and (iii) the *Société Nationale de Développement Informatique* (SNDI), a state-owned company under the supervision of the Prime Minister, in charge of Information Technology and Information System projects for the Government.<sup>23</sup>
13. **Although the ICT sector, and especially the mobile sector, is performing well in Côte d'Ivoire, it has mostly benefited the affluent urban and educated population** – The ICT sector in Cote d'Ivoire has consistently expanded during the last few years; it generated a total revenue of 982.5 billion FCFA in 2013 (US\$ 1.6 billion), contributed to 8% of the country's GDP, and provided around 5,400 direct jobs and 100,000 indirect jobs.<sup>24</sup> The recent performance of mobile service (voice and SMS) in Côte d'Ivoire has been buoyant, driven by a healthy competition among the three main mobile operators (Orange, MTN, and Moov). The mobile connection penetration (number of total SIM divided by total population) reached 113% at the end of 2015, compared to 88% for West Africa region and 77% for Sub-Saharan Africa (Figure 1). Despite these robust mobile service performances an important share of the population is still offline. As of 2014, only 4% of interviewed individuals stated that they have an internet access at home compared to an average of 12% for SSA (Gallup survey). The World Bank indicator 'Internet users' (percentage of the population that have used the internet – from any location and with any type of device – during the last 12 months) show that only 21% of the population of Cote d'Ivoire has accessed internet at least once during the previous 12 months in 2015, compared to an average of 22% for SSA and 29% for lower-middle-income countries (Figure 2). Moreover, the use of internet – mostly through mobile broadband, as fixed broadband connectivity is marginal – is concentrated in the most affluent, educated and urban population centers. 15% of the Cote d'Ivoire urban population uses internet on a weekly basis, but this rate drops to only 3% for the rural Cote d'Ivoire population

<sup>20</sup> Until 2012 the main legislation covering the telecommunication sector was the Law No. 95-526 of 7 July 1995 (Code des Télécommunications); as this legislation was outdated, it was fully revamped by the Ordonnance n° 2012-293 of 21 march 2012.

<sup>21</sup> Moreover, the Government has introduced a tax break for the ICT sector in August 2015 with a VAT exoneration and reduced custom duties for ICT and electronic equipment, and this measure should last until the end of 2018 (cf. Abidjan.net, [Les prix des ordinateurs, tablettes, téléphones portables vont baisser en Côte d'Ivoire](#), November 2015).

<sup>22</sup> The ARTCI was created in 2013 by merging two institutions, the previous *Agence des Télécommunications de Cote d'Ivoire* (ATCI) – in charge inter alia of telecom spectrum management, licensing, and wholesale pricing – and the *Conseil des Télécommunications de Côte d'Ivoire* (CTCI) – in charge inter alia of monitoring the market competition dynamics, ensuring the compliance with the license obligations, and solving litigations.

<sup>23</sup> In 2011, the Government adopted the e-GOUV scheme, which consists of two major axes – e-Administration and e-Services. The SNDI is working to implement ICT solutions in all government activities, including finance, health care, and education, with the goal of providing, by the year 2020, all government services available online in developed countries (cf. IDAL, [ICT Ivory Coast market](#), 2015, p.6).

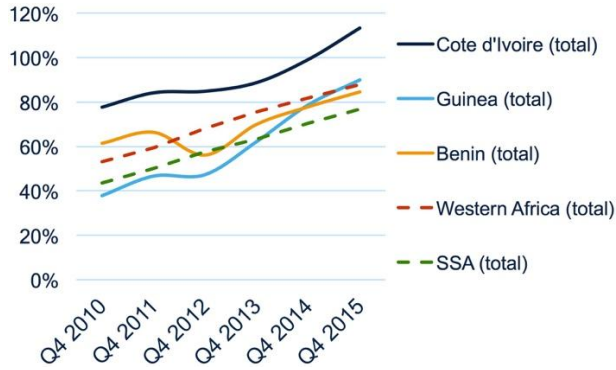
<sup>24</sup> Cf. Journal du Net, [Les TIC en Côte d'Ivoire](#), December 2014 ; BizTech Africa, [Ivory Coast moves to close digital divide](#), February 2015.





(Figure 3). In a similar fashion, only 1% of those having achieved at most primary education level use internet on a weekly basis compared to 19% for those having reached at least a secondary education level (Figure 4).

Figure 1: Evolution of mobile penetration (combined 2G and 3G, % population, 2010-2015)



Data Source: GSMA Intelligence, World Bank Development Indicators.

Figure 2: % of internet users (with averages for income grouping of countries, 2006-2015)

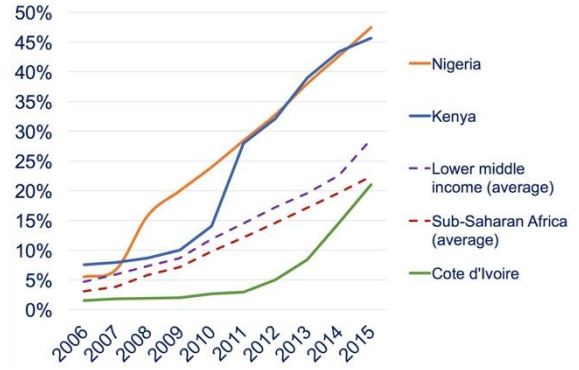
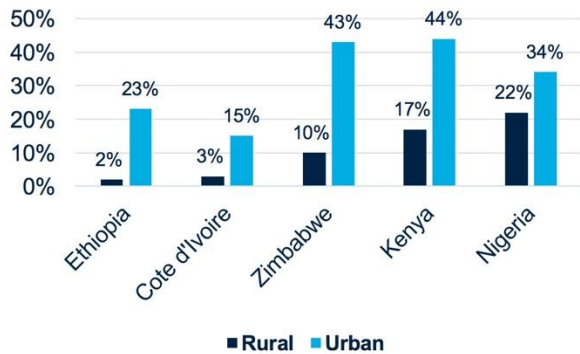
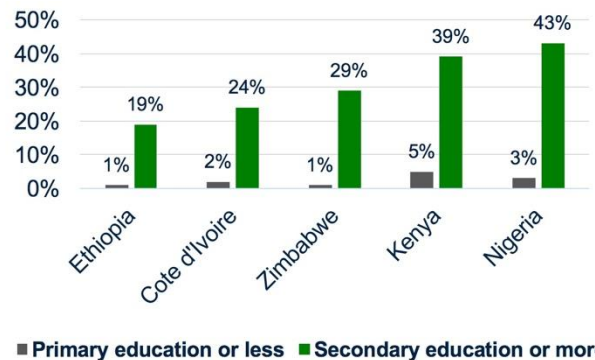


Figure 3: % of weekly internet use amongst rural vs. urban population (2014)



Data Source: Gallup, Africa Online – Media Use in Sub-Saharan Africa, 2015.

Figure 4: % of weekly internet use amongst different education level (2014)



14. **On the supply side, there are significant mobile coverage gaps for rural areas** – The regulator ARTCI has identified that 48% of the 8,518 localities (*localités*) in Côte d'Ivoire were not covered by any mobile service; the uncovered localities represent 23% of the total population. Mobile operators have confirmed that they reached their profitability frontier and that extending their coverage would not be sufficiently profitable at this stage due to: (i) the lower population density in rural areas which increases the Capital Expenditure (CAPEX) per subscriber; and (ii) the lower purchasing power of subscribers which drives down the Average Revenue Per User (ARPU). Mobile broadband coverage with 3G is even worse, with coverage maps showing vast swaths without any coverage (. To counter this market failure, the ANSUT is currently deploying a national 7,000 km long fibre backbone to cover rural areas, and ARTCI is elaborating a “white zone” program to increase rural coverage. However, this will be insufficient to achieve mobile broadband coverage for all as the number of mobile sites should be at least tripled: each operator has deployed between 1,600 and 2,000 mobile sites in Côte d'Ivoire, a relatively low number compared to European countries that achieved acceptable level of coverage and services (in Romania, a country that is 30% smaller in area and with a similar population size, the regulator calculated that 6,000 sites were required to cover 99% of the population).



Figure 5: 2G coverage by *département* (% pop., 2016)

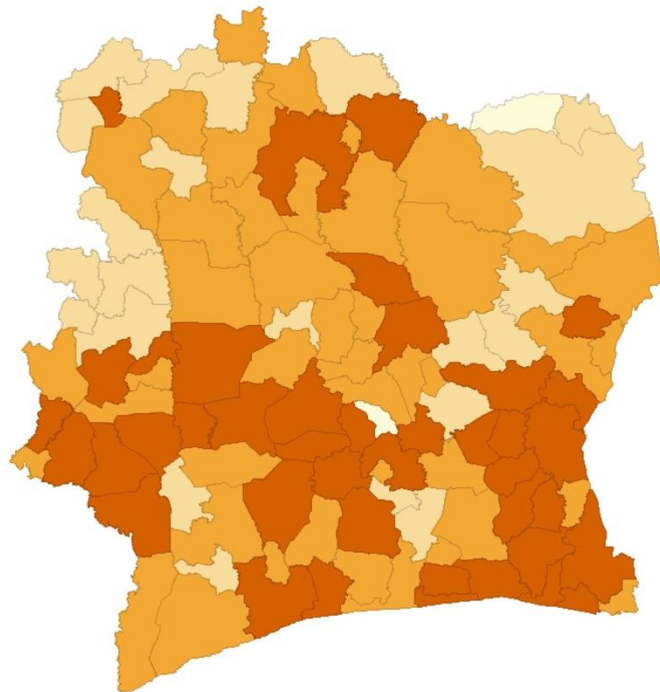
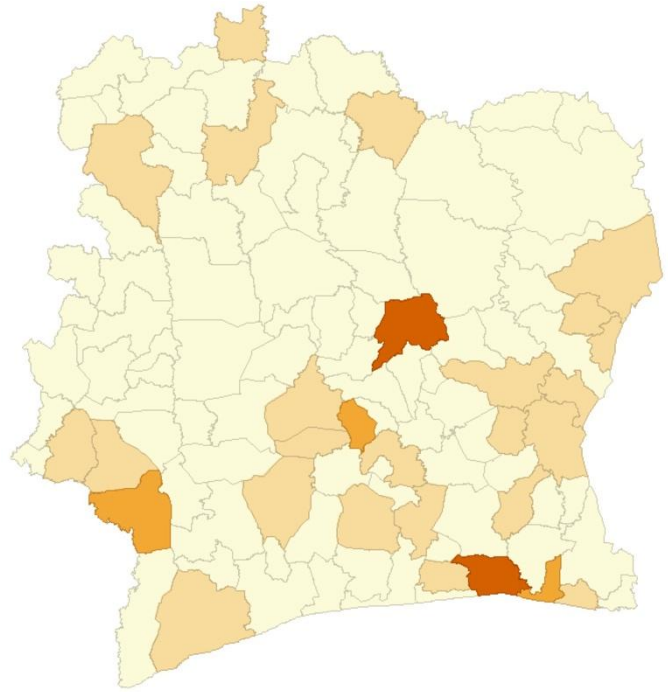


Figure 6: 3G coverage by *département* (% pop., 2016)



[0%;25%] [25%;50%] [50%;75%] [75%;100%]

Map source: ICT Unit, based on ARTCI data and base maps from [United Nations OHCA-CI and CNTIG](#).

#### Relationship to CPF

15. **The proposed project is designed to contribute to the World Bank Group’s twin goals** of ending extreme poverty and boosting shared prosperity – The project will help the country achieve the twin objectives through promoting agricultural growth which is inclusive of smallholder farmers. The proposed project is consistent with the Bank’s CPF (FY16-FY19), and especially with ‘*Focus Area One: Accelerating sustainable private sector-led growth*’ which comprises four objectives that the project will directly or indirectly support.
16. **The e-agriculture project will directly contribute to two objectives of the CPF regarding (i) agriculture and (ii) infrastructure** – (i) The project will contribute to ‘*Objective #1: Improve Productivity in Agriculture/Agribusiness Value Chains*’. Unpredictable weather patterns, unreliable pricing information and crop failure due to diseases are a few of the issues that digital services could tackle in Côte d’Ivoire. The project will directly support the objective of improving productivity by promoting digital solutions that will: (a) empower smallholder farmers to access information and markets, leading to increase in productivity and sales, and reduction in post-harvest loss; and (b) enable public institutions to collect and gather agricultural and rural statistics to drive public policy and strategy. (ii) The project will also contribute to ‘*Objective #2: Strengthen Economic Infrastructure*’. By extending ICT connectivity in rural areas, the project will directly enhance digital infrastructure and provide workarounds to inadequate logistics services. This will positively impact rural agriculture and economy by enabling easier access to consumer markets at competitive costs.



17. **The project will also indirectly contribute to two objectives of the CPF regarding (i) business environment and (ii) access to land – (i) ‘Objective #3: Improve Business Regulatory Framework and Access to Finance’** will be supported by extending the reach of ICT connectivity and facilitating the digitization of economic transactions. The spreading of ICT will support both: (a) the increase in mobile banking usage; and (b) the promotion of private sector growth with the ability for smallholders to get a credit with traditional banks thanks to a track record on which their financial performance can be assessed. **(ii) ‘Objective #4: Formalize and Enhance Regulatory Access to Land for Business and Agriculture’** will also be supported thanks to the development of ICT platforms providing cheap and reliable tools to register land and deliver land certificates. Enhancing the registering process of land is fundamental to improve land security and support informed land transactions for both smallholders and private investors, and are a prerequisite for shared growth.
18. **The proposed project will leverage ongoing Bank operations in Côte d’Ivoire** – The Bank has also been supporting the country’s agricultural strategy implementation through the sub-regional West Africa Agricultural Productivity Program (WAAPP), which is being implemented in 13 countries of the Economic Community of West African States (ECOWAS). The development objective of the Program is to generate and accelerate the adoption of improved technologies in the participating countries’ top agricultural commodity priority areas that are aligned with the sub-region’s top agricultural commodity priorities, as outlined in the Economic Community of West Africa Agriculture Program (ECOWAP). Other development partners such as the International Fund for Agriculture Development (IFAD), FAO, the African Development Bank (AfDB) and others have been implementing similar projects in support of the sector strategy.

### C. Proposed Development Objective(s)

**Note to Task Teams:** The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

To improve access to affordable broadband in rural communities and leverage electronic platforms to improve farm productivity and access to markets.

#### Key Results (From PCN)

19. The key results expected from the proposed project are:
- Coverage of ICT services is significantly increased in targeted areas, and ICT usage (voice, SMS, and internet access) is significantly increased in targeted areas for local public and administrative institutions, businesses, and population – including vulnerable population (women);
  - Digital solutions for rural development are made available, with electronic platforms being operational and used by: (i) public administrative services in charge of monitoring and informing rural development policies; and (ii) end users such as smallholders.
  - As a result of increased use of digital solutions, smallholders in targeted area benefit from an increase in: (i) yields of selected crops (volume of production per ha or per smallholder); (ii) volume of sales of selected crops; and (iii) the reduction in postharvest losses by selected producer organizations supported by the project.



20. The Project will assess the number of ‘beneficiaries’ with a breakdown between both individuals (disaggregated by gender) and establishments (disaggregated by central public administrations, local government and public administrations, and local businesses). The project will use the following PDO indicators:
- Number of beneficiaries accessing mobile communication services (voice and SMS);
  - Number of beneficiaries accessing the internet;
  - Share of production of target crops marketed by selected smallholders supported by the project;

#### D. Concept Description

21. To achieve the Project Development Objectives, the proposed project follows an integrated transformational solutions approach with three components:
- Component #1 ICT Infrastructure** – Extending the coverage of ICT services in rural areas, and thereby improving the number of individuals, public administrations, and businesses that will be able to access both mobile services (voice and SMS) and the internet to improve productivity;
  - Component #2 Digital services for rural development** – Stimulating the development of digital services for rural development (with an emphasis on e-Agriculture), improving public service delivery in rural areas, and encouraging development of local content, applications, and services, through the setting up of electronic platforms and the creation of business incubators;
  - Component #3 Project implementation** – Project management, coordination, monitoring, and evaluation.
22. **Component 1 ICT Infrastructure** – Component 1 will contribute to achieving the PDO by increasing coverage of ICT services. The coverage increase will be done through a subsidy to investment in connectivity. Depending on the targeted region and community, the PPP model will be adjusted. Among the public subsidy options, and based on ad hoc economic analysis, the project will subsidize: (i) the rollout of a Radio Access Network (RAN) mobile infrastructure focused on passive elements (i.e., towers and energy solutions). The towers will be sufficiently dimensioned to ensure that all mobile operators in Côte d’Ivoire can use the passive RAN to install their own active elements (i.e. base stations and transmitters) to improve coverage of their network and provide voice, SMS, and data services to the offline population; and (ii) the rollout of backhaul segments. The fiber optic links will be deployed either through OPGW when available, or buried along roads to points closer to the targeted communities. The private operators will then deploy the last mile (e.g. RAN). Because this component implies the subsidy of an ICT infrastructure, the identification of target areas (where the passive RAN will be deployed) and project design (how they will be deployed) will comply with a set of criteria in line with international best practices to maximize “value for money” and support the overarching twin goals of shared prosperity and poverty elimination (cf. below Section B).
23. **Regions identified as priority for Component 1 through the selection criteria** – Three districts have been identified by the client as priority for component 1: (i) District of Denguélé; (ii) District des Savanes; (iii) and the Bounkani Region (District of Bouna). These three district are particularly affected by low connectivity and productivity issues (see Figure 5 & Figure 6 above).
24. **Component 2 Digital services for rural development** – Component 2 will contribute to achieving the PDO with two sub-components:

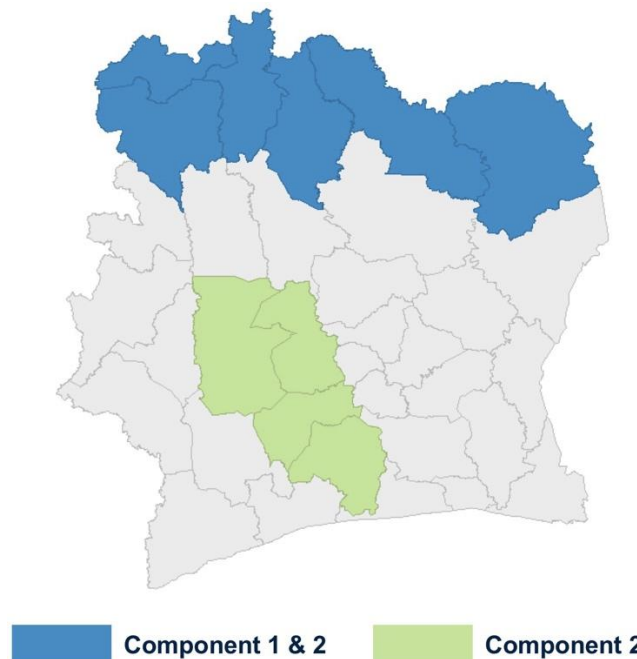


- a. **Sub-component 2.1** – Help improve the performance of the rural development public institutions in Côte d’Ivoire in gathering relevant, detailed, and recent data to monitor the rural economy and assist in shaping public policy;

**Sub-component 2.2** –Provide digital solutions to smallholders for selected crops that will increase crop yields, increase volumes of sales, reduce post-harvest loss, and improve market linkages. To that effect, a comprehensive program of activities will be implemented under this component that will be geared at: (i) improving the outreach and quality of crop extension and advisory services by strengthening the skills of public extension workers, promoting ICT in agricultural extension services, and supporting farmer-to-farmer extension; (ii) developing farmers’ skills to scale-up the dissemination of Good Agricultural Practices (GAPs); and (iii) fostering the emergence of a digital innovation ecosystem aimed at providing local content, applications, and services for rural development through the creation and leveraging of e-Government platforms. The project will specifically aim at incubators and local labs training young women in coding/programming, as well as entrepreneurship in general.

- 25. **Regions and value-chains identified as priority for Component 2 through the selection criteria** – Value-chains identified by the Ministry of Agriculture as priorities (with an emphasize on staple food) for this component are: (a) maize, manioc, rice; (b) plantain, yam (*igname*); and (c) poultry. Taking into account the regions where these value-chains are predominant, the component will target the following districts and regions: regions already included in Component 1 – District of Denguélé, District des Savanes, and the Bounkani Region (District of Bouna) – plus the District of Sassandra-Marahoué, and the District of Gôh-Djiboua. These crops fall to a large extent under the informal agriculture sector. Producers and farmers for these crops are predominantly women.

Figure 7: Regions identified as a priority for Component 1 & Component 2



Map source: ICT Unit, base maps from [United Nations OHCA-CI and CNTIG](#).

- 26. **Component #3 Project implementation** – This Component will support the setting up of a dedicated Project Implementation Unit (PIU) and will also cover training, office equipment, operating costs, audits and



communications as well as Monitoring & Evaluation (M&E), environmental and social studies, their implementation and/or the monitoring of their implementation.

**Note to Task Teams:** The following sections are system generated and can only be edited online in the Portal.

## SAFEGUARDS

### A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

In terms of infrastructure, the project will target exclusively the three Districts of the northern part of the country: District of Denguélé, District of Savanes, and District of Bouna. As part of component 1, the project will finance the construction of towers (passive infrastructure) and/or bury fiber optic links. In the case of fiber optic, the fiber will be buried along roads or railways, or installed on the ground cable of power lines. Therefore, the fiber optic infrastructure will be installed along existing infrastructure, with negligible impact on the environment and the population. Regarding the towers, some towers may be installed on private properties depending on the site and expected coverage. However, it is again expected that the installation of towers will have negligible impact on the environment, and minimal impact on the neighboring communities. Analysis will be carried out on a case by case basis. For the second component project will be implemented in the following areas: (i) District of Denguélé; (ii) District des Savanes; (iii) the Bounkani Region (District of Bouna); (iv) District of Sassandra-Marahoué; (v) and the District of Gôh-Djiboua

### B. Borrower’s Institutional Capacity for Safeguard Policies

There are considerable legal and institutional frameworks in the country to ensure compliance with World Bank safeguards policies triggered by the proposed project. In Cote d’Ivoire, the Ministry of Sanitation, Environment, and Sustainable Development (MINSEDD) is responsible for setting policy guidelines on environmental issues and ensuring compliance with national environmental standards. It has different departments among which the National Agency of Environment (ANDE, Agence Nationale de l’Environnement) in charge of safeguards compliance of all projects in the country. The unit is well staffed and its capacities are acceptable. Based on the preliminary borrower assessment, the Agency (ANDE) has sustained resources to carry out the oversight of the safeguards performance during implementation. With regard to the PIU, capacity building efforts to support project implementation will be done by implementing recommendations contained in the safeguards instruments prepared for the project. The project will also receive guidance from the Bank’s environmental and social specialists in the Project team.

### C. Environmental and Social Safeguards Specialists on the Team

Abdoul Wahabi Seini, Social Safeguards Specialist  
Fatoumata Diallo, Social Safeguards Specialist  
Abdoulaye Gadiere, Environmental Safeguards Specialist

### D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project will fund the construction of towers, ICT



		infrastructures and the deployment of fiber optic. These constructions may entail potential adverse impacts on the environmental components. However, as the exact locations of those activities are unknown to date, an Environmental and Social Management Framework (ESMF) will be developed, reviewed, consulted upon and disclosed both within Cote d'Ivoire and at the World Bank's Website prior to the Decision meeting.
Natural Habitats OP/BP 4.04	No	The project activities will not be implemented in areas hosting natural habitats.
Forests OP/BP 4.36	No	The project will not support activities related to forest exploitation or management or might have potential adverse impacts on forested areas.
Pest Management OP 4.09	No	The project does not involve pest management
Physical Cultural Resources OP/BP 4.11	Yes	Activities supported by the ongoing bank's funded operation such as the construction of towers, ICT infrastructures and the deployment of fiber optic will unquestionably involve excavations with possibilities to discover Physical cultural resources. However, the triggering of this policy does not entail the preparation of a specific safeguard instrument. Only a specific chapter will be included in the ESMF to provide guidance in case physical cultural resources will be discovered.
Indigenous Peoples OP/BP 4.10	No	The Project location does not cover Indigenous Peoples as defined by the World bank
Involuntary Resettlement OP/BP 4.12	Yes	These planned interventions are not expected to lead to significant land acquisition or significant restriction of access to sources of livelihood. However, the implementation of the pools or antenna may lead to lands acquisition. Therefore, a Resettlement Policy Framework (RPF) will be prepared for the activities triggered by the OP 4.12 as a due diligence given that the specific sites or impacts of envisioned physical investments are not known, The Resettlement Policy Framework (RPF) consistent with OP 4.12 will be prepared by the Borrower, reviewed and cleared by the team and disclosed in-country and at Bank InfoShop prior to appraisal. The RPF will be used as a guide to conduct specific Resettlement Action Plans (RAPs) as needed, as they relate to land acquisition and loss of economic activities issues, as well as compensation measures to minimize negative impacts on Project Affected People (PAPs).



Safety of Dams OP/BP 4.37	No	The project will not finance dams, not rely on dams.
Projects on International Waterways OP/BP 7.50	No	The project is not expected to affect international waterways
Projects in Disputed Areas OP/BP 7.60	No	The project will not be located in a disputed area.

**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Oct 02, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The following safeguard instruments are expected to be prepared during the preparation phase: i) an Environmental and Social Management Framework (ESMF) and, ii) a Resettlement Policy Framework (RPF). All these safeguard documents will be reviewed consulted upon and disclosed by the Government of the Republic of Cote d'Ivoire, and at the World Bank's Website prior to the Decision Meeting.

**CONTACT POINT**

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Republic of Cote d'Ivoire

**Implementing Agencies**

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**APPROVAL**

Task Team Leader(s):	Marc Jean Yves Lixi, Jean-Philippe Tre
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**Approved By**

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Practice Manager/Manager:	Boutheina Guermazi	15-Oct-2017
Country Director:	Pierre Frank Laporte	24-Oct-2017

**Note to Task Teams:** End of system generated content, document is editable from here.