Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 10-Mar-2020 | Report No: PIDISDSA25752
### BASIC INFORMATION

#### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Project Name</th>
<th>Parent Project ID (if any)</th>
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<tbody>
<tr>
<td>Niger</td>
<td>P167543</td>
<td>Niger: Smart Villages for rural growth and digital inclusion</td>
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<td>Digital Development</td>
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<td>Investment Project Financing</td>
<td>Ministère du Plan</td>
<td>ANSI</td>
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**Proposed Development Objective(s)**

The project aims at increasing access to cellphone and broadband services in rural areas and bringing digital financial services in selected underserved areas.

**Components**

1. Enabling environment  
2. Rural connectivity  
3. Digital and financial inclusion  
4. Project management and stakeholder capacity-building  
5. Contingent Emergency Response Component

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

#### SUMMARY

<table>
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#### DETAILS

**World Bank Group Financing**

| International Development Association (IDA) | 100.00 |
B. Introduction and Context

Country Context

1. **Niger is a large, landlocked and poor country in the arid Sahel region of West Africa.** Most of the country’s territory is sparsely populated or uninhabitable desert with a low population density (18 inhabitants per sq. km) and a very low rate of urbanization (more than 81 percent of the population in Niger lives in rural areas¹). The country’s population is young and growing rapidly. Around 50 percent of Niger's estimated 20.7 million inhabitants are younger than 15 years old and 75 percent are under 25. The current population growth rate is over 4 percent with a particularly high rate of births to young mothers. This young population is predominantly under-employed with a literacy rate of only 29 percent (15 percent among young women). With a poverty rate of 44.1 percent and a per capita annual income of just $420, Niger is one of the world’s poorest nations.

2. **Low rural productivity, insufficient human capital, and weak governance hamper Niger’s development.** According to the June 2017 Systematic Country Diagnostic (SCD), Niger’s three principal challenges that inhibit the country’s economic growth and constrain poverty reduction are: (i) a low rural productivity, caused in part by irrigation problems, limited adoptions of new technologies, and lack of access to finance; (ii) insufficient human capital due, in particular, to inadequate skills and training and poor provision of public services; and (iii) weak governance in key sectors, such as agriculture and telecoms, caused by insecurity and lack of public service delivery which in turn leads to limited economic opportunities.

3. **Niger is a fragile environment, and the security situation has deteriorated in recent months.** It is expected that Niger will be added to the list of Fragile, Conflict and Violence-affected (FCV) countries, as of 1 July 2020, at the start of the new IDA-19 cycle. Niger has ranked near to last in the United Nations (UN) Human Development Index since 2010. Meanwhile, external pressures due to conflicts involving violent extremist groups in neighboring Mali, Burkina Faso and Nigeria, and the lack of a state presence in southern Libya, have dramatically increased internal risks to Niger, with the potential to fuel pre-existing inter-communal tensions. Responding to security and humanitarian needs is further stretching

¹ World Bank Development Indicators (2017).
already limited public resources. At the same time, weak governance and dissatisfaction over the management of public resources (including mining revenues) and the delivery of services is reinforcing grievances and encouraging alternative – especially religious - forms of mobilization.

4. **Niger expects to take full advantage of the digital transformation, which has the potential to impact all sectors of socio-economic life.** The government of Niger (GoN) has developed a “Niger 2.0” Strategy, which defines the key pillars (work streams) for sustainable development based on the anticipated dividends of the digital economy. Niger’s ambition is to use digital infrastructures and services to modernize its economy, strengthen its growth, reinforce security, improve its governance and support efforts in key sectors including: agriculture, access to financial services, health, education and youth entrepreneurship. The “Niger 2.0” Strategy – implemented under the leadership of the Agence Nationale de la Société de l’Information (ANSI) – is designed to bring significant change in just a few years, with a strong focus on rural areas (Smart Villages Program).

5. **Niger requested by a letter of 23 January 2018 the support of the World Bank for its Smart Villages Program.** As part of the Niger 2.0 Strategy, the *Smart Villages Program* is aiming at leveraging digital technologies with the objective of reducing poverty and increasing incomes, improving citizens’ living conditions and resiliency to shocks. In addition, the program intends to enhance social inclusion, to develop e-Government services such as e-Agriculture, e-Health and e-Education, to reduce the gap in the access and use of digital services between men and women and finally to support financial inclusion through access to mobile money accounts and services. It is important to differentiate between the *Smart Village Program* which aims to provide a full range of digitally transformative services to rural areas, and this *Smart Villages Project* which covers selected foundational components of the *Smart Villages Program*, namely extending cellphone and broadband access and usage of mobile money in rural areas.

**Sectoral and Institutional Context**

**Digital infrastructure and telecoms/ICT sectoral and institutional context**

6. **Niger has one of the least developed digital infrastructures in the world and ranks at the bottom of most international digital rankings.** The development of digital infrastructure is lagging in Niger and indeed the country was rated in last position (176th out of 176 economies) in the 2017 ICT Development Index (IDI) of the International Telecommunication Union (ITU). Despite competition between several mobile network operators, Niger is one of the worst performers among all Low-Income countries in Sub-Saharan Africa: the total number of mobile SIM cards represent only 43 percent of the population, the total number of broadband-enabled mobile SIM cards (i.e. 3G and 4G) represents less than 5 percent of the population compared to 20 percent for Mali (cf. Figure 1). Only 2 percent of the Niger population are

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3 Agriculture is also supported by the “3N” initiative (*Les Nigériens Nourrissent les Nigériens, Nigeriens Feed Nigerien*) with a dedicated High Commission Office (HC3N, [online link](https://example.com)).
4 The ICT Development Index (IDI) is published in the ITU’s annual “Measuring the Information Society” report. The IDI is a composite index of access to and use of ICTs, as well as a measure of digital skills. Niger was not even ranked in subsequent editions of the ITU ranking.
5 A SIM card is a Subscriber Identification Mobile. SIM cards thus equate to the number of subscribers. However, as some subscribers may have multiple SIM cards, it would be more accurate to count only “unique” mobile subscribers, though this can only be an estimate.
active social media users, compared to the average of 11 percent for Western Africa, and 15 percent for the African continent\(^6\).

7. **The market structure in telecommunications is reasonably competitive, with four players competing for the market.** These are Airtel Niger (90 per cent owned by Bharti Airtel of India), Orange Niger (previously owned by the French Orange Group and now Zamani Com), Moov Niger (owned by Maroc Telecoms, which is in turn 48 per cent owned by Etisalat, UAE) and Niger Telecoms (formerly Sonitel and SahelCom, which were merged in 2016; a 100 per cent state-owned enterprise that has been through a number of unsuccessful privatization attempts). As of late 2019, Airtel was the market leader with around 42 per cent of the market followed by Moov (26 per cent) and Orange (24 per cent), with Niger Telecom trailing with just 7 per cent. However, Niger Telecom benefits from an effective monopoly in backbone fiber as it has legal protection which prevents other operators from laying fiber on routes where it already has capacity available. Investor confidence in the market received a jolt with the decision of Orange (formerly France Telecom) to sell its entire share in Orange Niger to Zamani Com, which is owned by local business interests, effectively withdrawing from the market. The sale was completed in November 2019.

8. **At least 10 percent of the population has no mobile telephony coverage, and around half of the population is not covered by mobile broadband.** According to figures provided by the sector regulator (ARCEP), there are approximately 6,092 villages representing a total population of 1.93 million (representing around 320,000 households), that still have no cellular coverage, even for voice services (2G). In addition, there are still gaps in the extent and coverage of rural and urban municipalities as well as rural communes. For example, 12% of the population of rural communes is still not covered, and this figure rises to 46% in Agadez, 27% in Diffa and 20% in Zinder\(^7\). While many African countries are experiencing an explosive growth in internet penetration, driven primarily by 3G and 4G mobile services, the ownership of smartphones remains low in Niger, and mobile broadband (3G/4G) networks cover only half of the population compared to 70 percent for Africa according to the GSMA.

9. **Several factors help explain the dismal performance of the digital infrastructure:** notably a high share of the population living in rural areas (84 percent of the total population compared to 60 percent for SSA, cf. also Figure 2), limited access to electricity (only 11 percent of the rural population has access to electricity compared to 23 percent for SSA\(^8\)), and high mobile prices (a basket of mobile services represents 33 percent of monthly Gross National Income (GNI) per capita compared to 14 percent for Africa). The lack of affordability can be partly attributed to a high level of taxation, while inadequate mobile applications and services (that are not always available in local languages) and low international connectivity\(^9\) contribute to a relatively low level of usage by regional standards.

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\(^7\) Using, as a basis, the latest 2012 population census and assuming a homogeneous growth across the whole territory.

\(^8\) World Bank Development Indicators (2018).

The overall ICT sector strategy and development falls under the responsibility of the National Information Society Agency (ANSI) and the Ministry of Posts, Telecommunications, and Digital Economy (MPTEN). The main institutions in charge of overseeing the sector are:

A. **Agence Nationale de la Société de l’Information (ANSI)** – Presidential Decree 2017-621/PRN (20 July 2017) created the ANSI. Its mission is the operational implementation of strategies, programs and projects for the promotion and development of information and communication technologies (ICT), in accordance with the guidelines defined by the Government, in conjunction with the Ministry in charge of the sector and other relevant structures. The ANSI is also in charge of managing the Universal Service Fund. The ANSI is placed under the technical supervision of the Minister Director of Cabinet of the President of the Republic of Niger, and under the financial supervision of the Minister in charge of Finance.

B. **Ministère des Postes, des Télécommunications, et de l’Économie Numérique (MPTEN)** – On July 12, 2018, Law No. 2018-45 regulating electronic communications in Niger was adopted. Amongst other things, the new law puts the MPTEN in charge of defining and implementing the policy for the development of the electronic communications sector (including by being in charge of the licensing award process). The MPTEN is under the authority of the Prime Minister’s Office.

C. **Regulatory Authority for Electronic Communications and Posts (ARCEP)** – Law No. 2018-47 (July 12, 2018) established the ARCEP. The sector regulator is in charge of defining and enforcing the regulatory framework for the electronic communications sector.

D. **High Authority for the Protection of Personal Data (HAPD)** – On May 3, 2017, the Government adopted Law No. 2017-28 to protect personal data. The Law created the HAPD, an independent administrative agency, in charge of enforcing data protection. The HAPD has been officially launched in November 2019.
11. **Niger is one of the weakest performers in financial inclusion in Sub Saharan Africa and in the West Africa Economy Union (WAEMU) region.** According to the 2017 World Bank Financial Inclusion index (Findex), 84 percent of the adult population in Niger is not part of the financial system compared to an average of 58 percent in Sub Sahara Africa, 57 percent in Burkina Faso, and 65 percent in Mali. Only 2 percent of the adult population has access to credit, one of the lowest rates in the world. Limitations in financial access are particularly acute among women and people living in rural areas.

12. **While the constraints to financial inclusion resemble those of other countries in WAEMU, they are more accentuated in Niger.** Constraints to financial inclusion include low proximity of financial services providers, restrictive approach of banks, underperformance of the microfinance sector, limited financial literacy, and weak financial infrastructure. Low physical access to financial institutions is one of the biggest issues in Niger given the very low population density with 18 people per sq. km which makes unprofitable brick and mortars branches. According to the International Monetary Fund Financial Access Survey, there are only 0.13 commercial banks per 1,000 km² meaning that it takes several hours or even a whole day for a customer to visit a bank branch. In addition to the low proximity issues, the microfinance sector is facing a crisis with level of nonperforming loans at more than 17 percent and more than 70 percent of the microfinance institutions in bad shape. The third issue pertains to the high difficulties of populations to fulfill banks’ customer due diligence requirements (formal ID, proof of address and income) which contribute to restrain access to banking services. Indeed, it is estimated that less than 13 percent of the population has a formal identification form. There are no formal physical addresses in rural areas. The lack of information on rural populations is also a big constraint to access to credit.

13. **While digital financial services are considered the most effective ways to improve financial inclusion, they remain underdeveloped in Niger.** The ratio value of financial transactions through mobile to GDP is one of the lowest in the region, representing 5 percent compared to 30.2 per cent in Mali. Access and usage of digital financial services in Niger remains among the lowest in Sub-Saharan Africa. In 2017, according to Findex, the percentage of adult population with a mobile money account doubled from 3 percent in 2014 to 9 percent but was still low compared to the average of 37 percent in Sub-Saharan Africa. Access to first generation digital financial services (e.g. person to person -P2P transfers, bill payments through mobile) remains limited and second generation of digital financial services (e.g savings and microcredit) is barely available. Total number of mobile money accounts is estimated at 2.8 million, representing twice the number of banks and MFI accounts in Niger, but half the number of mobile money account in Mali, and one third of the number of Burkina Faso. Only 7 percent of the adult population in Niger had received or sent money through mobile phones compared to an average 21 percent in Sub-Saharan Africa. 3.1 percent of adult population has received payments for agriculture products.

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11 A high level of non-performing loans due to governance issues and lack of appropriate credit policies and weak staff capacities in small MFIs, weak management information systems, high fragmentation of the sector, inadequate supervision and limited access to resources are the biggest concerns. While multiple initiatives are underway to put in place necessary reforms to improve the supervision and to consolidate the sector, much more remains to be done to make the microfinance sector a true instrument for financial inclusion.
12 For example, while most financial intermediaries in Kenya, Tanzania, Pakistan, China Bangladesh, Philippines, are using unstructured data to inform lenders and extend credit to those who were excluded from the formal system, this is still not possible in Niger because of scarcity of information, limited awareness of financial institutions on these new solutions offered by new technologies to advance finance inclusion.
13 IMF FAS data
Gender focus

14. **Niger faces persistent and strong digital gender gaps.** With regards to the digital inclusion of women, there are strong socio-economic gender inequalities in Niger, and socio-economic gender inequality also permeates in the ICT sector: in 2017, some 62 percent of males owned a mobile phone as compared with 43 percent of females, which leads to a Gender Parity Index for mobile ownership of 0.69 (the ratio of females to males who own a mobile phone), the third highest gap among SSA Low Income countries (after Ethiopia and Chad). The gender gap in device ownership has a direct impact on women’s access to digital financial services: only 5 percent of women in Niger have a mobile money account against 12 percent of men. This implies a Gender Parity Index for mobile money accounts of 0.44, the second highest after Ethiopia.

15. **Greater digital inclusion for women can catalyze development by empowering them to pursue new professions, give them access to new markets and economic opportunities, to credit and savings, and to critical government and private services, as well as helping them become more informed citizens.** Women in Niger represent an important proportion of the labor force. ILO estimates that around 24 percent of women are employed in the agriculture sector.¹⁴ Most of them are involved in subsistence or low yield agriculture, due to lack of finance amongst other constraints. They are vulnerable to exploitative trading practices and have weak bargaining positions with buyers due to their limited access to markets, and lack of access to formal means of saving. This applies to all women as they are also vulnerable to security issues due to difficulty to store their financial resources and a lack of digital literacy. There is a particularly high incidence of gender-based violence (GBV) in Niger, as discussed in Annex 3 of the PAD.

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**C. Proposed Development Objective(s)**

Development Objective(s) (From PAD)

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The project aims at increasing access to cellphone and broadband services in rural areas and bringing digital financial services in selected underserved areas.

Key Results

16. The proposed PDO-level results indicators for the project would include:
   A. Mobile broadband (3G and above) penetration rates (SIM cards per 100 inhabitants), including the percentage of female users;
   B. Mobile broadband (3G and above) network coverage (% of population covered);
   C. Number of people newly-connected with mobile broadband services, as a result of the project;
   D. Number of adults with mobile money accounts (of which, women, and those living in rural areas);
   E. Average number of digital payment transactions per user per year (and average for female users and users living in rural areas).

D. Project Description

Component 1 – Enabling environment (estimated cost US$4 million)

17. This component will support preparation of studies and reforms grouped in two clusters: digital infrastructure / ICT sector and digital financial inclusion. The objective of these studies will be to assess sectoral bottlenecks that may be preventing the achievement of universal service and contributing to the relatively high retail prices and poor quality of digital services. The component will also provide a diagnostic of the situation and help address some regulatory and legal constraints to the development of digital financial services.

18. Activities on digital infrastructure / ICT sector, to be implemented in close collaboration with MPTEN, ANSI and ARCEP, include:

   A. **Activity 1.1. Technical assistance to perform a diagnostic of the legal bottlenecks and establish a strategy to increase private ICT investments, in collaboration with all key stakeholders** – Support, review and assess sectoral telecommunications policy and its implementation, including the licensing regime, the infrastructure sharing regime, and the opportunity to adopt regulations to support the installation of telecommunication infrastructures in targeted rural areas.

   B. **Activity 1.2. Technical assistance to increase the regulator’s capacity (ARCEP) in defining, monitoring and enforcing the coverage obligations of mobile operators** – the technical assistance will provide a diagnostic of the existing coverage obligations and of the capacities of ARCEP in monitoring and enforcing them, and will provide recommendations on how the definition, monitoring, and enforcement of coverage obligations could be enhanced to further increase the coverage of mobile networks in rural areas.

   C. **Activity 1.3. Technical assistance to increase the efficiency of the universal service fund (USF) and to develop a national digital equity strategy** – support a more comprehensive and sustainable approach to universal service, including measures of affordability, accessibility and

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15 As legal and policy matters related to financial services in Niger must pay close attention to the rules laid down by the West African regional community of which Niger is a member, the project will also work with the Regional Central Bank (BCEAO), the Ministry of Finance (MOF), and ANSI.
availability of service, and support to establish a National Digital Equality Strategy, providing a diagnostic of the digital gender gap and accessibility gaps for other vulnerable populations, such as the elderly and those living with disabilities, with actionable recommendations that will inform policymakers and support the subsequent implementation of project components.

D. **Activity 1.4. Capacity building for senior Government officials on the digital economy** - Support capacity building of senior government officials to design, implement and evaluate policies and regulations to support the development of the digital economy, including developing strategies to improve device affordability (as a prerequisite to reach the rural population), and to support for digital expansion and interconnection in the WAEMU/ECOWAS trading area.

19. Activities on digital financial inclusion, to be implemented in close collaboration with the Ministry of Finance and the Central Bank, include:

A. **Activity 1.5. Support for the creation of a conducive legal framework** - Support for the revision or introduction of laws related to e-signature, data protection, cybersecurity, consumer protection and digital financial services, in accordance with the Central Bank regional regulations and aligned with the international standards, to support the development of digital finance.

**Activity 1.6. Digital addressing** - Conducting a study to assess the possibility to use digital addressing systems for populations in rural areas (who do not have formal addresses) and piloting this new system with selected financial institutions

**Component 2 – Rural Connectivity (estimated cost US$63 million)**

20. This component aims to develop connectivity in rural areas, in particular for the approximately 6,092 villages, with a total population of 1.9 million, that lack any form of telecommunications coverage under a Mobilizing Finance for Development (MFD) approach. The lack of coverage is the primary binding constraint that explains why digital services are not more widely accessed and used in rural Niger. There are many other constraints, such as lack of electrification, unaffordability of services, lack of compelling local content and applications and appropriate digital skills / literacy programs. While providing coverage will not solve these other problems, it will at least open up possibilities for access and for community services, government services and entrepreneurship to develop. To tackle the lack of power supply, telecommunication networks bring their own power to offer the service and the project embeds an approach to moderately over-dimension the power supply installed to run the local digital connectivity infrastructure and to leverage on other operations fostering off-grid energy access.

21. Extending the coverage of mobile communications to these 1.9 million people currently unserved (almost ten per cent of the population) will bring direct benefits in terms of enhanced security as it will enable vulnerable populations to report in real-time what problems and threats they may be experiencing, as well as enabling them to receive alerts of impending threats (e.g., instructions not to travel in the wake of terrorist incidents). The combination of enhanced connectivity with the provision of digital financial services will also help build resilience and a buffer against social and economic shocks, for instance provided by incoming remittances to vulnerable areas. Because the location of “sweet-spot” villages corresponds so closely with areas with high rates of poverty, incidence of violence and climate stress, and areas under security risk, the provision of fresh investment and new services will also help in addressing internal geographical disparities in the country. Closing the access gap should, in theory, be the mandate of Niger’s Universal Access Fund (Fonds pour l’Accès Universel, or FAU), to which the operators contribute. However, to date it has made only limited progress.
22. In this first phase of the project, it will not be possible to serve all 6,092 villages. Thus, to benefit from economies of scale, and to optimize the available budget, it is proposed to select some 2,111 candidate “smart villages” for inclusion in this phase of the project (with scale up opportunities through other donors, from the FAU or through additional financing to this project). The selected villages would be among the 6'092 that are unserved by any type of digital cellular signal (i.e., not even 2G coverage) and the selection would be further refined based on objective criteria as follows:

A. **A population of between 250 to 2,500 inhabitants.** Table presents an estimated distribution of uncovered villages by size, and the distribution of the population of these villages is illustrated in Figures 8 and 9 in Annex 1. The candidate villages for inclusion in Component 2 of the project are the 2,111 unserved villages – “Sweet-spot” villages – with between 250 and 2,500 population. The larger unserved villages (2,500 population plus) would probably be servable by the private sector (telecommunications operators, specialized tower operators, etc.) without any subsidy for capital expenditure (CAPEX), if an appropriate enabling policy and regulatory environment were in place. The project will thus seek to address the bottlenecks that are preventing telecoms operators from investing in these villages. On the other hand, the smaller unserved villages (below 250 population) would most likely be uneconomic to serve using today’s technology without also providing a subsidy on Operational Expenses (OPEX), and, in any case, are home to fewer than a half a million people. Unless there are specific reasons not to do so (for instance, localized security concerns) all of these intermediate-sized, or “sweet spot” villages, of between 250 and 2,500 people, would be covered by the project. There are around 2,111 villages in this category, and they account for some 1.24 million inhabitants. For reference, some 24’000 villages in Niger are already covered by at least 2G technology.

B. The sweet-spot villages also correspond to areas that experience vulnerability. Indeed, among the reasons why these villages are not currently served with mobile coverage is because they are remote, in areas that are conflict-afflicted, and in which the populations are generally too sparse and too poor to serve economically. A higher percentage of the sweet-spot villages fall in the four regions of focus selected in the CPF, namely Tillaberi, Maradi, Zinder and Diffa.

Table 1: Summary of the 6,092 unserved villages (by ranking the villages by population range)

<table>
<thead>
<tr>
<th>Pop range</th>
<th>Population</th>
<th>Population</th>
<th>Population</th>
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<tr>
<td>50</td>
<td>0 - 50</td>
<td>792</td>
<td>25,768</td>
<td>33</td>
</tr>
<tr>
<td>100</td>
<td>50 - 100</td>
<td>1,093</td>
<td>81,713</td>
<td>75</td>
</tr>
<tr>
<td>150</td>
<td>100 - 150</td>
<td>932</td>
<td>116,466</td>
<td>125</td>
</tr>
<tr>
<td>250</td>
<td>150 - 250</td>
<td>1,114</td>
<td>217,493</td>
<td>195</td>
</tr>
<tr>
<td>400</td>
<td>250 - 400</td>
<td>877</td>
<td>279,100</td>
<td>318</td>
</tr>
<tr>
<td>500</td>
<td>400 - 500</td>
<td>327</td>
<td>147,054</td>
<td>450</td>
</tr>
<tr>
<td>1100</td>
<td>500 - 1100</td>
<td>706</td>
<td>499,908</td>
<td>708</td>
</tr>
<tr>
<td>2500</td>
<td>1100 - 2500</td>
<td>201</td>
<td>312,304</td>
<td>1,554</td>
</tr>
<tr>
<td>4000</td>
<td>2500 - 4000</td>
<td>27</td>
<td>78,090</td>
<td>2,892</td>
</tr>
<tr>
<td>+</td>
<td>4000 +</td>
<td>23</td>
<td>167,642</td>
<td>7,289</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6,092</td>
<td>1,925,538</td>
<td>316</td>
</tr>
<tr>
<td>Of which pop is 250-2500</td>
<td>2,111</td>
<td>1,238,366</td>
<td>587</td>
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Source: Data from ARCEP (2016), analysis from task team.

C. For the digital centers and other activities proposed in Component 3 of the project, a further criterion is that the villages should be suitable for investment, in the sense that there is already
a certain degree of momentum, for instance from existing economic activity, ongoing or planned programs undertaken by development partners, or having good experience with community mobilization. This would be complemented by efforts to raise awareness of the potential benefits of digital transformation and mobile money.

23. For the 2,111 or so “Sweet-spot” villages, an average investment of around $60,000 per village is planned (based on a $63 million budget for this component from IDA). Additional financing could come from the Universal Access Fund (FAU), from other donors and mainly from the operators themselves through parallel financing, based on their competitive bids in the reverse auction (see Box 1). Most of this would go into a CAPEX subsidy to attract investment from the private mobile operators and tower companies and should be sufficient to provide the “light” technical solution to cover a village. Villages could be grouped in batches according to their characteristics and / or degree of priority and / or geographical area. The lots would be tendered in a sequential manner to take advantage of preliminary lessons learned from the ongoing pilot studies, as well as limitations and difficulties of implementation. It will be important to study the economic sustainability of different models of intervention, both for the mobile operators, and for digital entrepreneurs. For that reason, it is proposed that in the initial phase, different solutions may be provided in four sample zones – each of around 50 villages – to cover an initial set of 200 villages. In this pilot phase, commercial bids from operators would be evaluated primarily through a “beauty contest” approach, based on the innovativeness of the business model and technology proposed. Then, based on an evaluation of progress, the solution that proves the most sustainable would be used in the remaining 1,900 or so villages, divided into four lots of approximately 475 each.

24. In addition to basic connectivity, the project will also seek to moderately over-dimension the power supply installed to run the local digital connectivity infrastructure, so that spare electric power could be used for some essential needs (i.e. lights or fans in schools, health centre fridges for the conservation of medicine and food, mobile and electronic equipment recharging stations, etc.). Indeed, as the connectivity infrastructure would most likely be the only powered equipment in many of the targeted villages, the project will ensure that the benefits of sharing the electricity provided for the connectivity infrastructure will spread to the rural communities where they are deployed. One option could be to install moderately over-dimensioned additional solar and battery capacity, allowing for the extra available energy to be purchased by citizen and local businesses. Another option could be to encourage subproject developers and investors in the Smart Villages to submit unsolicited proposals to the National Rural Electrification Promotion Agency (ANPER) for electrification. This will build on Component 2 of the Niger Solar Electricity Access Project (NESAP, P160170) which was designed to create the environment and promote private sector investments in rural electrification. The technology solution would be resolved on a case by case basis but is likely to include isolated solar photovoltaic (PV) systems, with diesel mini-grids as back-up.

25. The activities supported under Component 2 are detailed in Annex 1 and would include an initial mapping of the villages (2.1); technical assistance for the development of a strategy for supporting deployment of digital infrastructure in rural areas (2.2); the elaboration of an operations manual (2.3); the actual financing of the infrastructure through the reverse auction mechanism (2.4); and financing for power supply and storage facilities (2.5).

26. Change management and support for rural development will play an essential part in the success of the project. The project could use "community relays" or “champions” and establish EIG (Economic Interest
Groupings) which could serve as contact points. For example, for the operational and training component, it would be ideal to bring together a multi-disciplinary team from the field who could work with the beneficiaries on the use of the installed equipment, manage top up and electricity resale, or oversee mobile agents and any other related functions. They could also assist with local maintenance.

Component 3: Digital financial inclusion (US$28 million)

27. This component aims at improving access to digital financial services, while maximizing the spillover effect in other (economic and social) sectors in rural areas. The proposed project will focus on selected high-priority, high impact and sustainable initiatives that will: (a) foster the development and adoption of financial services; (b) complement current ongoing activities to support financial inclusion including the Financial Sector Reform and Strengthening Initiative (FIRST) in Niger, agriculture projects (the Niger Agro-Pastoral Export and Market Development Project (PIMELAN) and Climate Smart Agriculture (PASEC)); (c) allow inclusion of vulnerable populations and refugees receiving safety nets under existing World Bank programs; and (d) seek to catalyze ongoing efforts to develop economic and social inclusion in rural areas, in particular agriculture. More generally, the proposed activities under component 3 will have synergies and/or complementarities with several Bank projects in Niger (details are provided in Annex 1).

28. The design of the component into three subcomponents is grounded on the following considerations (a) the result of World Bank studies on financial inclusion under the FIRST project in Niger; b) successful experiences in the development of digital payments and their impact on financial inclusion in East Africa, particularly Kenya, but also in other WAEMU countries such as Côte d'Ivoire and Mali; and (c) the strong commitment of the Nigerien authorities to the development of the digital economy.

Sub-component 3.1: – Creating digital centers and improving the digital financial ecosystem

29. The project will support the enhancement of the digital financial ecosystem, improving digital financial literacy and improved acceptance of digital payments by merchants. These activities are an essential complement and support for the success of activities under sub-components 3.2 and 3.3 as they will help address some of the main constraints in rural areas including limited awareness for digital financial services and poor digital literacy especially for women, limited or no opportunities to use e-money, and the extremely limited number of mobile money agents, many of whom have liquidity constraints and limited working capital and therefore cannot do cash-out transactions.

30. This sub-component will support three main activities:

A. The creation of 150 digital centers which will be physical facilities for delivery of e-financial or digital services to rural populations. They will operate as multiple-services-one-stop-shops where remittances, cash-in cash-out and any other financial services, can be undertaken. This could include, for instance, assistance to rural populations in undertaking digital transactions on mobile phone and computer, financial and digital education programs, onboarding of merchants for digitization of their payments, power for mobile-charging, and digital ID registration of rural populations. While the project will not build and own these centers, it will partner with selected companies that have strong physical presence in rural areas to operate and manage the digital centers. These companies will receive sub-grants under the project (i) to acquire, upgrade, and maintain digital centers in the villages; (ii) cover their operational expenses; and (iii) develop business models that could allow the digital center to be sustainable even after the closing of this project. The companies will be selected through a competitive bidding process. Preference will
be given to public or private companies with existing premises in rural areas. Most of the services delivered in the centers will be free of charge for the rural populations except for power for mobile charging, and transaction fees for cash-out. To ensure affordability of these fees, the project will work with mobile finance providers to develop more attractive cost structure for cash-out transactions.

B. Digital financial and literacy campaign programs. The project will finance digital financial and literacy campaigns. The deployment of these campaigns will be conducted in local languages, will use a variety of multimedia (pictures, comics, local radio stations etc.), social media channels (WhatsApp messages, etc. ...), and will be combined with face to face interactions in the digital centers. Special attention will be given to the development of content relevant for women. The project will work with several existing World Bank projects including PRODEC, SWEDD, PACRC and safety nets programs to deliver the digital and financial literacy programs and accelerate access to digital financial services to beneficiaries of these projects (see Table 4 in Annex 1).

C. Increasing acceptance of digital payments. The project will provide vouchers to merchants, women groups (“tontines”) and micro-enterprises to cover up to 90 percent of the costs of the acquisition of payment devices in villages such as integrated contactless payment solutions. Preference will be given to merchants, women’s groups and micro-enterprises in the regions and communes around smart villages, without excluding other regions. Each recipient would be eligible to receive only one device. Basic eligibility criteria include: volume of transactions, estimated number of clients or members (for tontines), interest in opening an associated financial account, registration or recognition by peers or traditional authorities.

Subcomponent 3.2: Digitizing payments and development of new fintech products

31. This sub-component will comprise (i) digitizing payments made and received by farmers; and (ii) promoting new digital financial products for women and farmers.

32. To accelerate digitizing payments made and received by farmers, the project will support:

A. The digitization of payments received by the public agriculture input supplier, CAIMA or large input suppliers. This will be done by financing the upgrading the back-end processes (ERP system) and financing 75 percent of the costs of payment devices for wholesalers and their retailers to allow them to receive digital payments from farmers.

B. The digitization of payments received by farmers from their agriculture federations. This will be done by financing the creation of an ERP solution and other payment infrastructure to enable 5 agriculture federations to manage the constituency of co-operatives and for the co-operatives in turn to manage the farmers under them. Priority will be given to agriculture federations in the value chains with a high number of members in communes and regions around smart villages, and to value chains supported by other World Bank projects including the Agriculture and Transformation project PIMELAN (P164509) or other donors to ensure synergies.

C. To ease digital payments transactions, the project will finance the development of a user-friendly interface between the ERPs and MNOs, existing payment providers, and the digital data platform (cf. sub-component 3.3).

D. Technical assistance to CAIMA, agriculture federations, financial institutions, and other stakeholders to improve capacities for digital payments.
33. To promote new digital finance products for farmers and women, the project will offer sub-grants of up to a maximum amount of US$250,000\textsuperscript{16}, through a business competition plan to Fintech companies, and startups. The sub-grants will cover seed funding, operation costs, costs for piloting new digital financial and non-financial solutions for women and farmers for two years. Priority will be given to Fintech or startups which will develop business models around saving groups. Fintech and start-ups companies (local, regional or international) interested in entering or expanding their activities in Niger will be eligible to receive the sub-grants. Also, to be eligible to receive sub-grants for the piloting of new solutions, the Fintech and startups will have to demonstrate that there is not yet a clear business case (e.g. serving those populations that are unlikely to be profitable in the first two years). The grantee will be encouraged to partner with financial institutions or similar institutions in Niger to offer financial services.

\textbf{Subcomponent 3.3: Creating digital platforms to enable access for rural populations to formal accounts and to increase access to appropriate financial services}

34. To address the issue related to the scarcity of data and information on rural populations, and the high cost of due diligence and onboarding of rural populations, the project will support the creation of a digital data platform that will collect data on rural populations. The platform will serve for two main purposes: including credit scoring, understanding the financial needs of rural populations and KYC purposes. The digital platform will have two outlets: (i) data platform, and (ii) an e-KYC registry. The digital data platform, to be hosted at the BCEAO and managed by an independent private company, will be made accessible to financial institutions, existing credit bureau and other service providers, following an operation manual in accordance with the regional central Bank (BCEAO) regulations and legal provisions governing data protection in Niger. The manager of the data platform shall be selected together by ANSI and the BCEAO and shall be a private entity specialized in e-KYC or credit scoring that has no conflict of interest and is fully trusted by lenders to be predictive, independent and reliable given its responsibility to ensure the quality and consistency of data collected.

35. Activities to be financed under this sub-component will include:

\begin{itemize}
\item Data collection;
\item Creation of a digital data platform which will comprise a credit scoring system and a e-KYC registry;
\item Linking the data platform with digital agriculture payments platforms to be put in place under sub-component 2, so that all mobile money transactions and non-financial information could be captured by the data platform especially for credit assessment purpose;
\item Technical support for the implementation of the digital data platform. This will include (i) the design of algorithms for credit scoring, (ii) the training and on-boarding of the participating financial institutions, BCEAO, and other stakeholders; (iii) the design of business model to ensure the financial viability of the platform; (iv) support for the development and technical design of legal, and supervisory frameworks for the development of a data platform covering credit scoring and e-KYC registry.
\end{itemize}

\textsuperscript{16} Based on WB experience on launching new Fintech products in Sub Saharan Countries
Component 4: Project management and stakeholder capacity building (US$5 million)

36. This component will support essential project management functions. This will include support for an overall Project Implementation Unit (PIU) including: (a) all aspects of project preparation, management and audit, including fiduciary management and procurement, logistics and operational overhead; (b) communication, production and knowledge management and coordination among project partners; and (c) monitoring and evaluation (M&E) including geolocation of project intervention sites and "Interactive Beneficiary Monitoring" (IBM) schemes. The project will also leverage on the World Bank Geo-Enabling method for Monitoring and Supervision (GEMS) by recruiting a GEMS specialist. GEMS uses open source tools for in-field collection of structured digital data that automatically feeds into a centralized M&E system. Using GEMS systematically allows operations to enhance the transparency and accuracy of M&E, and the accountability of third-party monitoring.

37. The PIU will consist of a project coordinator, a financial management specialist, a procurement specialist, an assistant procurement specialist, and accounting specialist, a GEMS / M&E specialist, and a specialist in environmental and social safeguards. In addition, a number of positions will be recruited to reinforce ANSI as the implementing agency. These may include a digital technology specialist, a digital economy specialist, a financial inclusion specialist and a digital payment specialist. This component will also fund capacity building for sector stakeholders, and preparation of bidding documents and contracts. The project coordinator and other staff, including an FM specialist, a Procurement specialist, a safeguards specialist and an accountant, have already been recruited using the project preparation advance (PPA). The new staff are currently working with the PIU from an existing program (PCDS), which is serving as a transitory PIU. It will handover functions to ANSI once the new PIU is functional. ANSI will be the implementing agency, working in close cooperation with the Ministry of Posts, Telecommunications and Digital Economy (MPTEN).

Component 5: Contingent Emergency Response Component” (CERC) (US$0 million)

38. A fifth component for a “Contingent Emergency Response Component” (CERC) is added to the project structure. This will have an initial zero value but may be financed during the course of the project to allow for agile response to emerging events. Adding the component in from the beginning, albeit with zero funding, provides for flexibility to respond to crises as they arise. These could include, for instance, humanitarian crises which require the provision of emergency communications services to replace facilities that have been damaged, or to facilitate emergency humanitarian payments using mobile money.

E. Implementation

Institutional and Implementation Arrangements

A. Institutional and Implementation Arrangements

39. As several institutions are directly concerned by the activities to be carried out, the project would require an effective cross-agency coordination and implementation mechanism. The project will be implemented under the authority of the National Agency of Society Information (ANSI), attached to the Office of the President of the Republic of Niger. ANSI is also responsible for managing the Universal Access Fund (UAF). ANSI has the overall responsibility for the development of the digital economy in Niger, and is well positioned (and in many instances, is already engaged through its role in overseeing the implementation of the Smart Villages Program) to share information and coordinate with all stakeholders in the ecosystem. ANSI will chair the steering committee to be established by Government Decree, with the
MPTEN and Ministry of Finance as Vice-Chairs. Other members of the steering committee will include beneficiary Ministries such as the Ministry of Planning and Economic Development, the Ministry of Agriculture, the Ministry of Commerce, BCEAO, and CAIMA. In addition, a technical committee will be put in place for the implementation of the project. This technical committee includes representatives of mobile operators, regulator, sectoral ministries that participate in the steering committee plus the Ministry of Energy, electricity companies, and financial institutions. ANSI would implement component 2 in collaboration with MPTEN, which is the Ministry with responsibility for telecommunications policy and component 3 in close collaboration with the Ministry of Finance which is in charge of financial inclusion. A dedicated “Niger Villages Intelligent” (NVI) PIU has been created and is now functional. It will formally take over the responsibility of the transitional PIU (PCDS) at the time of Negotiations.

40. The scale-up of the Smart Villages Project will guide the institutional arrangements that would build on the successful implementation arrangements of the pilot phase project, by using the same PIU and involving the same implementing agencies. The project will need the buy-in of high-level decision makers, especially for sensitive policy changes. Thus, implementation arrangements will take a multi-tiered approach to ensure high level buy-in from the impacted ministries at the highest level, technical acceptance from the various government sectors expert, and on-the-ground buy-in from the village and administration chiefs.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Some 2,111 "sweetspot" villages of between 250 and 2'500 population where there is currently no cellular coverage will be the main locus of intervention. The villages are mapped in the PAD.

G. Environmental and Social Safeguards Specialists on the Team

Demba Balde, Social Specialist
Mamadou Diedhiou, Social Specialist
Hubert Maurice Waterinckx, Environmental Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>Will require construction of radio masts in rural areas, a few of which may also require additional road access, but delivery of equipment by helicopter is also likely. Chosen sites are typically around 30 m2, on high sites close to villages.</td>
</tr>
</tbody>
</table>
**Performance Standards for Private Sector Activities OP/BP 4.03**

No

Not required.

**Natural Habitats OP/BP 4.04**

No

Will require construction of radio masts in rural areas, a few of which may also require additional road access, but delivery of equipment by helicopter is also likely. Some limited removal of vegetation may be required.

**Forests OP/BP 4.36**

No

Rural Niger is characterized by desert rather than forest areas.

**Pest Management OP 4.09**

No

Not required.

**Physical Cultural Resources OP/BP 4.11**

Yes

Construction work to be carried out is almost exclusively above ground (cellular masts) and it is not considered likely that any physical cultural resources (chance finds) would be harmed.

**Indigenous Peoples OP/BP 4.10**

No

There are no known areas inhabited by indigenous peoples under the areas where activities are planned.

**Involuntary Resettlement OP/BP 4.12**

Yes

Construction of radio masts may require some minimal resettlement in areas of flat terrain where the cellular mast is in proximity to a village, but this is very unlikely as population density is so low. More likely is a requirement for temporary rehousing for periods of up to a week if construction work creates excessive dust or noise.

**Safety of Dams OP/BP 4.37**

No

Not required

**Projects on International Waterways OP/BP 7.50**

No

Not required

**Projects in Disputed Areas OP/BP 7.60**

No

Not triggered

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**KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT**

**A. Summary of Key Safeguard Issues**

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

   The main potential impact arises from the construction of additional cellular radio masts and solar panel arrays in rural areas, co-financed by IDA and the private sector. Although the footprint of the masts is quite small (around 30 square meters) and they can be constructed relatively quickly (around one week), and are somewhat removed from settlements (on high sites) the construction work may require some removal of vegetation and construction work may raise some dust and disruption.

   These interventions may result in (a) land acquisition; (b) impact on people and properties. In response to these risks, OP/BP 4.12 (Involuntary resettlement) is triggered.
2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
It is expected that the provision of cellular services and off-grid solar electricity in rural areas will lead to a net increase in economic activity over the long term.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
From a technical perspective, satellite or fiber optic communications could be considered as an alternative to cellular, and diesel powered generators could be considered as an alternative to solar panel arrays for powering base stations. However, all of these would have a more negative environmental impact and would be most costly than the proposed solution.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.
Borrower capacity to address safeguard issues is limited as this is the first WBG program undertaken by the implementing agency (ANSI). However, they have experience of working with other donors (notably AfDB) and there is plenty of experience from other WBG programs in Niger. It is planned to twin the PIU in ANSI with an existing, effective PIU. Environmental and Safeguards assessments will be commissioned using funds from an anticipated project preparation advance.

The likely environmental and social impacts require project owners to (a) scope and assess the social impacts associated with sub-projects; (b) undertake census, asset enumeration and valuation of affected properties; (c) determine workable arrangements/framework for compensation payment; (d) initiate and sustain meaningful consultation with local communities with the aim to creating awareness about the positive and negative impacts of the project; and (e) resolve and/or incorporate stakeholder concerns in project design and implementation; (f) ensure client has budget for compensation; (g) hire experienced and well-qualified safeguards personnel etc.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.
It is planned to develop an interactive beneficiary mechanism (IBM) to help manage citizen engagement with the program.

B. Disclosure Requirements

<table>
<thead>
<tr>
<th>Environmental Assessment/Audit/Management Plan/Other</th>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
<th>For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors</th>
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</thead>
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"In country" Disclosure
Niger
11-Dec-2019

Comments
### In country disclosure at country office and PIU

#### Resettlement Action Plan/Framework/Policy Process

<table>
<thead>
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<th>Date of submission for disclosure</th>
</tr>
</thead>
<tbody>
<tr>
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<td>04-Dec-2019</td>
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</table>

#### "In country" Disclosure

Niger

11-Dec-2019

Comments

In country disclosure at country office and PIU

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### C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

#### OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

No

#### OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

#### OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

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**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank for disclosure?
Yes
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?
Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?
Yes

Have costs related to safeguard policy measures been included in the project cost?
Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?
Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?
Yes

CONTACT POINT

**World Bank**

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Lead Digital Development Specialist

Axel Rifon Perez
Young Professional

Fatoumata Den Lamari Fadika
Financial Sector Specialist

**Borrower/Client/Recipient**

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Saâdou Bakoye
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**Implementing Agencies**