

**SECOND QUARTER 2023**



*Second Niger Bridge Photo source - Julius Berger*

**LEVERAGING PPPs TO BRIDGE INFRASTRUCTURE GAPS IN NIGERIA**

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## EDITOR – IN – CHIEF’S DESK

Dear Reader,

The ICRC Bulletin Editorial Team is pleased to present the Second quarter edition for the year 2023. The theme for this edition is “Leveraging PPPs to Bridge Infrastructure Gaps in Nigeria”.

Our feature story, which has same title as the theme of the Bulletin was written by Mr. Ifeanyi Nwoko of the Media & Publicity Unit of ICRC.

In the article, he notes that while economic experts in the global infrastructure space agree that adopting PPP model for government’s large scale infrastructure project financing is the best way to tackle huge infrastructure deficit, it is even more imperative across developing countries where it remains the bane of development.

He gave an example of Nigeria’s PPP space where between year 2010 to May 2023, 103 projects valued at N10.8 trillion were approved by the Federal Executive Council (FEC) under the regulatory guidance of the Infrastructure Concession Regulatory Commission (ICRC).

Our knowledge management story is titled “Yes, it is Possible to Finance Critical Infrastructure in a Tight Economy”; written by Imad N. Fakhouryfatomoua Toure Ibrahima. In the write-up, Imad pointed that no sooner was economic growth beginning to recover after the COVID-19 pandemic, than the Russian invasion of Ukraine dealt another blow to global prospects, with 2023 growth slowing from what was expected six months earlier.

He stated that the cumulative impact of these global crises has led to a significant deterioration in the financing environment for large development projects, noting however that governments can turn to the private sector to finance certain types of projects capable of offering attractive commercial returns—such as renewable energy, port expansions, or major highways. He said “from the year 2000 up until the global pandemic, the private sector had on average supported about \$90 billion in real terms (in 2022 dollars)-worth of infrastructure projects in emerging markets each year”.

In our health and wellness section, we share on Congenital disorders which are also known as congenital abnormalities, congenital malformations or birth defects. The article gives an overview of congenital disorders, key facts about them, causes, risk factors, prevention, screening, treatment, and care.

**Manji Yarling**



## DG's STATEMENT

The second quarter of 2023 was very eventful for the Public Private Partnership (PPP) space in Nigeria: First it marked the end of an administration that paid great attention to PPPs, secondly it witnessed to the approval of the highest number of projects in one quarter, and thirdly it saw the transition to a new administration led by a President whose antecedents demonstrate a focus on infrastructure development.

A delve into activities and events that shaped the quarter under review shows that between April and May 2023, prior to the hand over to a new administration, the Federal Executive Council (FEC) approved a total of 22 PPP projects across various sectors. These projects which will inject billions of dollars in private sector investment will contribute greatly to bridging the nation's infrastructure deficit.

Notable among these projects are: National Fire Detection and Alarm System, a N3.5 bn PPP which is a cloud-based system designed and deployed to address the shortcomings in information sharing between fire alarm detection notification and control systems, system administrator, and fire service; E-Ticketing Concession for Lagos-Ibadan Rail and Warri-Itakpe Rail, to Design, Develop, Deploy and Manage a Secure Automated Fare Collection for the rail projects; Operations and Maintenance of the 40MW Kashimbilla Hydro Power Plant N7.6 billion project and the \$1.1 billion greenfield project for the Operation, Maintenance and Transfer of the 360MW Gurara II Hydro Power Plant.

Others are: Electronic Civil Registration and Vital Statistics System (eCRVS) to capture real-time, quality, reliable and verifiable statistics on births, deaths, marriages, and divorces; Ondo Multipurpose Deep-Sea Port which will be the largest solid minerals terminal.

These approvals in the second quarter of 2023, brought to 103 the total number of PPP projects that have been approved by FEC since the inception of the Commission. The PPP projects will see to the investment of N10.8 trillion (\$23 Billion) in private sector funds to develop infrastructure in Nigeria. These investments also translate to a revenue expectation of N185.2 billion to the Federal Government of Nigeria in 2023 alone.

While it is gratifying to note that as exemplified above, PPPs can serve as a vehicle to complement government effort to bridge the infrastructure gap, it is worthy of note that this can only be attained with sustained effort, and the Commission is poised and capacitated to provide the needed regulatory guidance.

As part of its guidance, the Commission has published on its website a pipeline of 53 eligible projects across various Ministries which have been verified to be bankable and viable. In addition to this, there is also a publication of projects that have been granted Outline Business Case (OBC) certificates of compliance and Full Business Case (FBC) certificates of compliance on the website, uploaded on a monthly basis.



These publications will assist the new administration as well as would-be investors to lock on to projects of interest – picking out the low-hanging fruits while actualizing others that require a longer time to materialize.

The Commission has opened talks with some partners and potential investors who are looking to take on needed infrastructure projects as well as collaborate with Nigeria on specific areas of PPP.

For instance, on June 22, 2023, the Commission hosted the South African High Commissioner to Nigeria, H.E Tharmi Mseleku who came to seek collaboration with the ICRC on PPPs. During this visit, he disclosed that the government of South Africa was willing to partner with the government of Nigeria towards building the infrastructure of both nations, pointing out that South Africa had the financial and technical capacity to support Nigeria in its quest to bridge infrastructure gaps.

Also, within the period, the Vice Chancellor and management staff of David Umahi University of Health Sciences visited the Commission in a quest to grow their DNA laboratory, among other projects using PPPs.

As the new administration settles in, we are hopeful as a Commission, that infrastructure development through PPPs will continue to receive the required government support.

Our hope is borne not only out of how well the PPP sector fared in the last administration but owing more to the hope of continuity and the knowledge of the antecedents of the current President.

To ICRC staff members and all our PPP stakeholders - I thank you for your sustained efforts and encourage us to do even more as we take PPPs to the next level in this new dispensation.

**J. A. Michael Ohiani**  
Director General

## LEVERAGING PPPs TO BRIDGE INFRASTRUCTURE GAPS IN NIGERIA

By Ifeanyi Nwoko



*Badagry Deep Sea Port - Photo Source Construction Review online*

The world over, Public-Private Partnerships (PPPs) play significant roles in meeting infrastructure needs. National and sub-national governments have come to the conviction that private participation in infrastructure development is no longer optional but a necessity.

While economic experts in the global infrastructure space agree that adopting PPP model for government's large scale infrastructure projects financing is the best way to tackle huge infrastructure deficit, it is even more imperative across developing countries where it remains the bane of development.

They posited that the core objective of the PPP project delivery model is to use less public money and raise private capital through a mutually rewarding and risk-sharing agreement with a private entity or a consortium of private sector entities as well as ensure the inflow of private investment, technology, expertise, and better quality.

Africa particularly faces significant challenges in terms of inadequate infrastructure across various sectors, including transportation, energy, water and sanitation, telecommunications, healthcare, among others. There is a disparity between the existing infrastructure in the continent and the infrastructure needed to support economic growth, social development, and improve the quality of life for its people.

To the President, African Development Bank Group, Akinwumi Adesina, Africa faces an infrastructure gap of between \$68 billion to \$108 billion annually. While noting that investments in inter-state roads, rails, bridges, energy, broadband, and other regional infrastructure will boost trade and make Africa an investor's dreamland, Adesina revealed

that the bank had committed over \$44bn to infrastructure across the continent in the last seven years.

Speaking when the United States hosted G-7 Ministers, and heads of multilateral development banks to discuss the scaling up of infrastructure financing, he said, “the AfDB, the premier financier of infrastructure in Africa, has committed more than \$44 billion to infrastructure across the continent in such critical areas as transport, energy, and water and sanitation. Despite collective efforts, Africa still faces an infrastructure financing gap of \$68 to \$108 billion annually.... There is no institution in the world that is investing more in African infrastructure than the AfDB. Infrastructure is our forte”.

In another interview, he assured that the Bank would work assiduously to raise more funds to promote regional trade even as he expressed the desire for the regional multilateral development finance institution to play an expanded role in supporting PPP development in the continent. "We are going to do more on infrastructure in a way that does not put most of the cost on the government budget because of the debt distress that quite a number of countries are in. So, infrastructure financing for us, going forward, should have to be a public-private partnership, with increased participation of the private sector. How do we raise more money for it? Take a look at the sovereign wealth funds and the pension funds in Africa, all that together is roughly \$2 trillion", he added.



*Rail project managed by PPP - Photo source - NRC*

Like many Sub-Saharan African countries, the infrastructure gaps in Nigeria manifest in a lack of good roads and railway networks; poor power generation, transmission, and distribution systems; poor water, health, housing, and education facilities, among others. Several reports have shown that Africa’s most populous nation has a huge infrastructure gap, according to the Reviewed National Integrated Infrastructure Master Plan, Nigeria needs an investment of \$2.3 trillion over the next 30 years to close its public infrastructure deficit.

In the same token, assessing Nigeria's capacity to build the kind of infrastructure the country is currently seeking funding for, the World Bank disclosed that the country's physical infrastructure gap would likely reach \$3tn in the next 30 years.

The Bank's public finance review report on Nigeria pointed out that at the current rate of investment, it would take the country about 300 years to close its infrastructure gap. "The level and quality of Nigeria's infrastructure quality is low, with the country ranked 132 out of 137 countries for infrastructure in the 2018 Global Competitive Index.

Industry watchers have also attributed Nigeria's low ranking in the 2019 World Economic Forum' (WEF) Global Competitiveness Index to the poor state of the country's infrastructure which they said had limited its growth potential and competitive abilities globally. Out of 141 countries assessed, Nigeria ranked 116 places in the WEF's Competitiveness Index.

According to the AfDB, five African countries accounted for more than 50 percent of all successful PPP activities from 2008 to 2018. At a 2020 workshop to discuss how the Bank can strengthen support for Public Private Partnerships and channel greater investments toward economic and social infrastructure, it listed the countries to include: South Africa, Morocco, Nigeria, Egypt and Ghana.

In South Africa for instance, PPPs have played a significant role in addressing infrastructure development challenges and improving public service delivery. One notable example is the \$3 billion Gautrain project - a rapid rail link that connects Johannesburg, Pretoria, and the OR Tambo International Airport. The project involved a concession agreement between the Gauteng Provincial Government and the Bombela Concession Company. The company, which includes several private sector entities, designed, built, financed, and operates the Gautrain system under a long-term concession.

Other significant PPP initiatives in South Africa are the Renewable Energy Independent Power Producer Procurement Program (REIPPPP) as well as the Lesedi Private-Public Partnership Hospital in the Free State Province. While the former involved the successful implementation of numerous renewable energy projects, including wind farms and solar power plants, the latter is a collaboration between the government and the Netcare Group aimed at providing quality healthcare services to the local community through a combination of public funding and private sector expertise.

In another jurisdiction Morocco, a noteworthy example of a PPP is the Tangier-Med Port. This project involved the collaboration between the Moroccan government and several private companies to develop a world-class port facility near the city of Tangier. The partnership resulted in the construction and operation of the port, which has become a major logistics hub and a significant driver of economic activity in the region. Other significant PPP initiatives include Noor Solar Power Complex, the high-speed rail line (TGV) connecting Casablanca and Tangier, the Greater Casablanca Water Supply Project and a host of others.

Also in Nigeria, Public-Private Partnerships (PPPs) play an important role in infrastructure development and economic growth. PPPs are primarily regulated by the Infrastructure Concession Regulatory Commission (ICRC) under the ICRC Act, 2005 and have been implemented in sectors such as transportation, energy, water supply, aviation, healthcare, housing among others. Specifically, in the last thirteen years, the government through the regulatory agency has been actively promoting PPPs across various sectors by leveraging private sector expertise and resources to support the country's development goals.



A glance at some of the concessions approved by the Federal Executive Council (FEC) between 2010 to 2023 revealed that 103 projects valued at N10.8 trillion have been approved under the regulatory guidance of ICRC. Some of the projects include the Lekki Deep Sea Port (N504billion), construction of 614km gas pipeline from Ajaokuta to Kano (AKK) (N1.02 trillion), ECOWAS Biometric ID Cards System (N14.7bn), E-Ticketing Solution, Abuja - Kaduna Rail corridor (N900m), Port Harcourt Railway Industrial Park (\$291m), Bonny Deep Sea Port (\$550m), Concession of Shiroro Hydro Electric Power Plant to improve national power generation (N48billion), Development of Phase 4B Port Facilities at Onne Oil and Gas Free-Zone (N1.02 trillion), Presidential Initiative to modernize and digitalize the operations of Nigeria Customs Service (\$3.1 billion), and Ibom Deep Sea Port Project (\$2 billion).

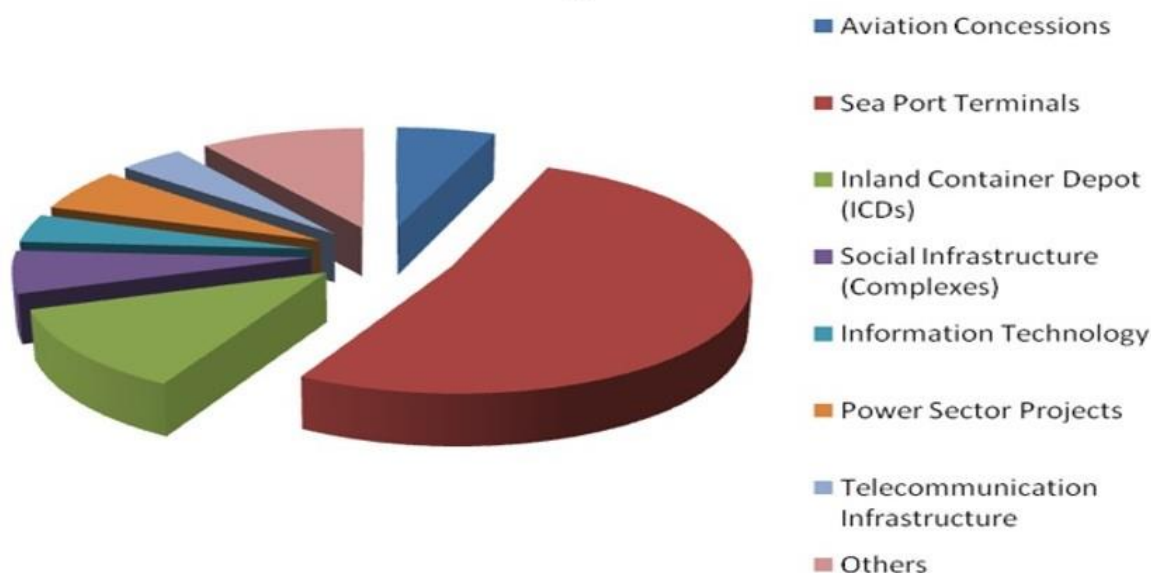


*Lekki Deep Sea Port - Photo source: Punch newspapers*

Others are development of Hydroelectric power across the country namely: Bakolori Dam (Zamfara State), Ikere Gorge Dam (Oyo state), Omi – Kampe Dam (Kogi State) and Zobe Dam and Jibiya Dams (Katsina State), worth over N1.5 billion. Also included are the Operation and Management Concession of the 700 MW Zungeru Hydroelectric Power Plant (N552 billion); the 360 MW Gurara 2 Multipurpose Dam Project (N516.6 billion) and 40 MW Kashimbila HydroPower Dam at (HPP) Project (N7.68 billion).

In the Transportation sector, the following were approved within the period under review: Abuja-Baro-Itakpe-Ajaokuta-Warri Railway Line (269.12km) with branch and extension lines to Jakura-Lokoja (41km) and Agbarho-Warri (5km) at N3.2 billion; Design, Development, Deployment and Management of a Secure Automated Fare Collection (AFC) Solution for the Nigerian Railway Corporation (NRC) Rail Network at N900 Million; Development of Port Harcourt Railway Industrial Park, Rivers State equipped with rolling stock assembly, Oil and Gas materials supply Industrial Park, Textile Industrial Park as well as Light Industry Park for Fast Moving Commodities and Goods (N133 billion); Development of Bonny Deep Sea Port (N253 billion); Ibom Deep Sea Port Project in Akwa Ibom State

(N927.5 billion); Onitsha River Port project (N3.9 billion). In Aviation, Development of a Maintenance, Repairs and Overhaul (MRO) Facility (N690 Million), Abuja and Kano International Airport Terminal (N47.6 billion). Similarly, the Development of Deep-Sea Port in Badagry, Lagos (N1.28 trillion); Construction and Maintenance of 12 corridors under a highway development and management initiative (HDMI) at a total cost of N1.57 trillion), covering 1,374km roads with concession periods of between 25 and 27 years.



Sector distribution of PPP projects

Analysts say to avert the World Bank's prediction that it would take 300 years to close the country's current infrastructure gap, there is an urgent need for the new administration of President Bola Tinubu to upscale the national infrastructure stock and bridge the wide gap in the midst of dwindling government revenue and sustain the tempo of ICRC's intervention.

Fortunately, President Tinubu's policy document and inaugural address recognised infrastructure investment as a crucial driver of economic growth. It would be recalled that the former Lagos State Governor had conceptualised the Lekki Free Trade Zone which now showcases the Lekki Deep Sea Port, Dangote Refinery, and many other world-class infrastructure facilities. In both his manifesto and first address to Nigerians, he not only acknowledged the giant strides of his predecessor, former president Muhammadu Buhari in providing key infrastructure in several sectors of the Nigerian economy but also expressed his commitment in enlarging and completing ongoing projects. In his May 29 address to the nation, he said: "We shall continue the efforts of the Buhari administration on infrastructure. Progress toward national networks of roads, rail and ports shall get priority attention".

In conclusion, addressing the infrastructure gap in Africa requires significant investments in both physical infrastructure and institutional capacity. Efforts to bridge this gap involve a combination of public and private sector involvement, foreign direct investment, partnerships with international organizations, and regional integration initiatives. Nigeria has started taking giant strides towards closing the nation's infrastructure gap and ICRC is

playing a major role through its regulatory guidance to ensure PPP projects play a major role in this regard.

## REFERENCES

Infrastructure Concession Regulatory Commission (ICRC)  
<https://www.icrc.gov.ng/>

AfDB puts Africa's infrastructure deficit at \$108bn (<https://punchng.com/afdb-puts-africas-infrastructure-deficit-at-108bn/>)

It would take Nigeria 300 years to build world class infrastructures according to the World Bank (<https://africa.businessinsider.com/local/markets/it-would-take-nigeria-300-years-to-build-world-class-infrastructures-according-to-the/8dv41dp>)

All eyes on Tinubu to close Nigeria's \$2.3 trillion infrastructure gap (<https://www.dataphyte.com/latest-reports/all-eyes-on-tinubu-to-close-nigerias-2-3-trillion-infrastructure-gap/>)

Supporting Public Private Partnerships in Africa: African Development Bank ready to scale up (<https://www.afdb.org/en/news-and-events/press-releases/supporting-public-private-partnerships-africa-african-development-bank-ready-scale-37804>)

## KNOWLEDGE MANAGEMENT

YES, IT IS POSSIBLE TO FINANCE CRITICAL INFRASTRUCTURE IN A TIGHT ECONOMY

IMAD N. FAKHOURYFATOUMA TOURE IBRAHIMA

FEBRUARY 01, 2023



An infrastructure project in Nigeria - Source: The Guardian Newspaper

The world economy is traversing difficult times. No sooner was economic growth beginning to recover after the COVID-19 pandemic, than the Russian invasion of Ukraine dealt another blow to global prospects, with 2023 growth to slow to 1.7% from 3% expected six months ago.

The cumulative impact of these global crises has led to a significant deterioration in the financing environment for large development projects. This comes at a time when there is a pressing urgency to invest in inclusive and climate-smart quality infrastructure to support the transition to net-zero carbon economies, protect societies from mounting climate-related risks, and achieve universal access to basic services for millions of households who remain excluded.

Governments, who have traditionally funded major infrastructure projects, are experiencing unprecedented fiscal stress. Public debt was already on an unsustainable trajectory for many low- and middle-income countries prior to the conflict in Ukraine, and fiscal sustainability is likely to be further eroded by weaker growth prospects and higher borrowing costs. Debt indicators in developing countries continue to worsen: at the end of 2021, the external debt of these economies totaled \$9 trillion, more than double the amount a decade ago, with 60% of the poorest countries at high risk of debt distress or already in distress. Meanwhile, depreciating exchange rates and tightening monetary policy are making external debt increasingly costly to service.

Given the tight fiscal space, governments can turn to the private sector to finance certain types of projects capable of offering attractive commercial returns—such as renewable energy, port expansions, or major highways. In fact, from the year 2000 up until the global pandemic, the private sector has on average supported about \$90 billion in real terms (in 2022 dollars)-worth of infrastructure projects in emerging markets each year. As much as 50% of the new power generation capacity constructed in low- and middle-income countries between 2000 and 2020 was financed by the private sector. Renewable energy averaged more than half of newly added capacity between 2011 and 2019.

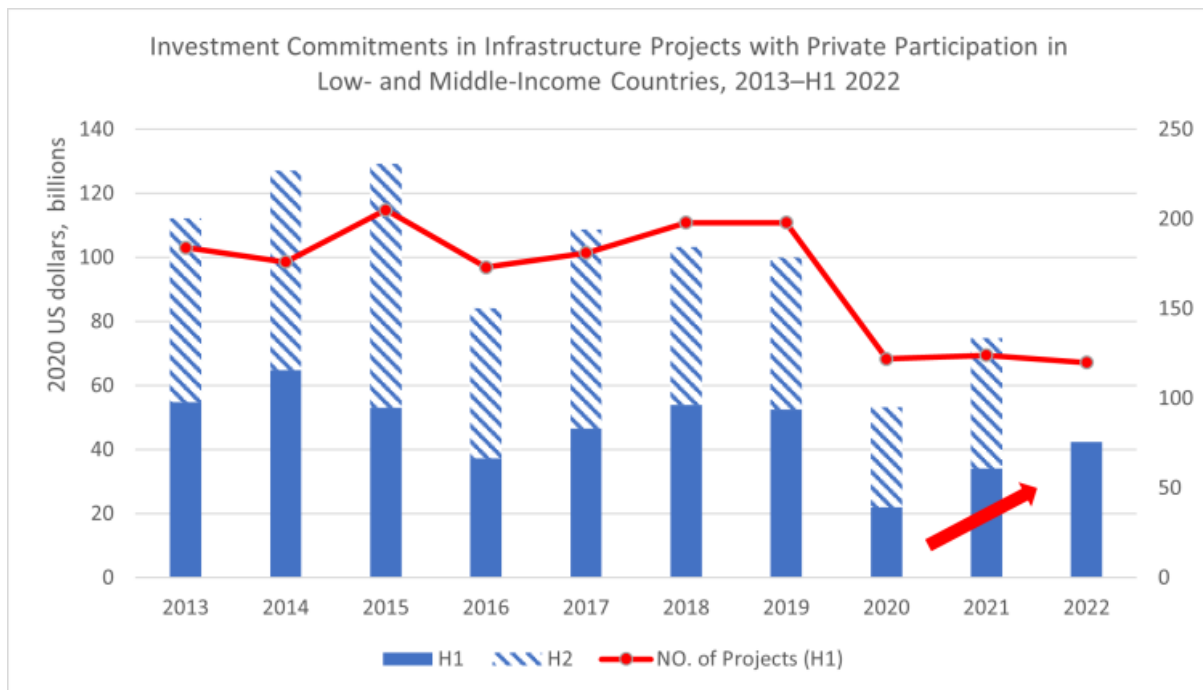
However, the current global macroeconomic context is also reducing private sector appetite and ability to finance infrastructure projects in emerging markets. Global financial conditions have tightened considerably, reflecting increases in monetary policy rates, greater volatility, and waning risk appetite. At the same time, heightened risk perceptions are also increasing the cost of new borrowing, with some 30 emerging economies experiencing multiple downgrades in sovereign risk premiums during 2020 alone. This has prejudiced foreign direct investment flows to emerging economies, which fell by 14% in 2020 to reach their lowest levels for a decade.

Percent change in PPI from 1991 to 2021

Just about every major global crisis has led to a significant downturn in private capital flows to infrastructure projects in low- and middle-income countries. Whether it was the Asian financial crisis of 1998, the SARS outbreak of 2003, or the European debt crisis of 2012, such periods of crisis have prompted an immediate downturn in private finance of between 20–60%. Although some rebound is to be expected in the immediate aftermath of the crisis, the overall dampening effect can persist for several years. For example, after the Asian financial crisis of 1998, private capital flows took as long as a decade to return to pre-crisis levels.

As the world enters the third year of the COVID-19 crisis, we see that aggregate output in low- and middle-income countries rebounded in 2021 after a sharp decline in 2020. The recovery continued through the first half of 2022, but the data provides a mixed picture. Private investments in infrastructure in the first half of 2022 stood at \$42.3 billion across 120 projects, marking an increase of 24% from the first half of 2021. While East Asia and Pacific and South Asia regions have shown strong recoveries in infrastructure investments, this was not the case in Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, or Sub-Saharan Africa. The transport sector again outpaced the other sectors in terms of private capital flows to infrastructure, posting \$28.4 billion across 41 projects. In addition, since most travel restrictions have been lifted, private investment commitments in airports are also seeing continuous growth.

Investment in the energy sector in the first half of 2022 dropped by 12% from the first half-year of 2021 levels, recording the lowest levels in the last 10 years. On a positive note, almost 90% of 55 new electricity-generation projects used renewable-energy sources. In terms of investment volume, almost 44% of new electricity-generation investments were in renewables.



Action is urgently needed to bolster lagging private capital flows and support to the financing of resilient infrastructure, which not only improves people’s lives today, but also prepares their economies for the future. Turning around the current situation calls for concerted efforts by governments and international financial institutions across several key areas.

Every dollar of investment, whether public or private, must support high-quality, sustainable infrastructure that maximizes its value to a country’s economy, citizens, and environments. The fact is that the world needs more—and better—infrastructure investment.

As economic stimulus continues to slow, credit conditions continue to tighten, and uncertainty from overlapping crises intensify even more, there will be even greater need for reforms and for increasing private investment in infrastructure. While guarantees de-risk projects and enhance credit risk, ultimate de-risking is achieved through cross-cutting and sector structural reforms, such as legal, regulatory, and institutional reforms, transparent accounting for contingent liabilities, and others, that will contribute to achieving the financial sustainability to systematically attract the private sector.

This will require working collectively to enable private sector solutions and putting in place stronger foundations for a post-crises recovery. The risk calculus for the private sector may remain challenging, but with high risk potentially comes high reward. The World Bank Group, alongside other bilateral and multilateral development partners, stands ready to support our client countries to enable and mobilize private capital for infrastructure investment as part of a green, resilient, and inclusive recovery.

<https://blogs.worldbank.org/ppps/yes-it-possible-finance-critinfrastructure-tight-economy>

# MEETINGS – WORKSHOPS - TRAININGS - CONFERENCES – SUMMITS



*ICRC Team meets with Delegation from Ajaokuta Steel Company PPP Stakeholders – April 19, 2023*

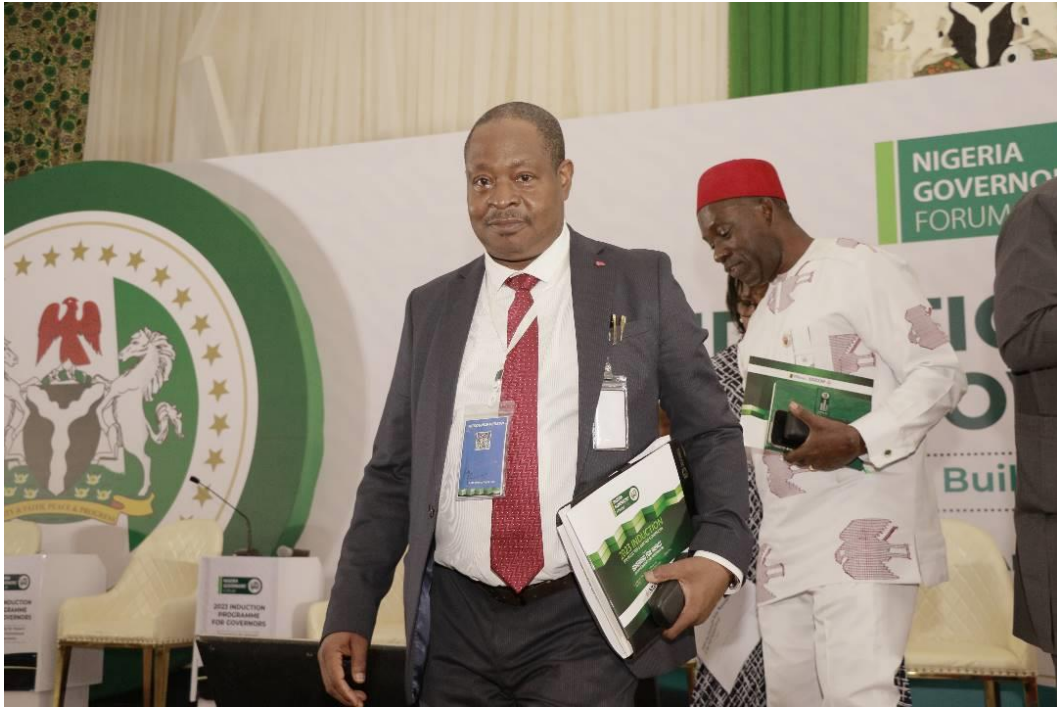


*Stakeholders hold financial negotiation at ICRC for the operation and management concession for Gurara II Hydro Power Plant – April 17, 2023.*



*First Quarter 3PUCF meeting and inauguration of State House PPF Unit – April 27, 2023*





*ICRC DG J.A. Michael Ohiani addresses Governors'-Elect at a forum organized by the Nigeria Governor's Forum (NGF) at the Presidential Villa in Abuja – May 16, 2023*



*Anti-Corruption and Transparency Unit of the ICRC interact with officials of the ICPC – May 17, 2023*





*Minister of Power Works and Housing, Babatunde Fashola, DG ICRC J.A. Michael Ohiani and others during the commercial close for the Highway Development and Management Initiative (HDMI) – May 26, 2023*



*DG ICRC, other staff receive Executive Secretary, National Agricultural Land Development Agency seeking ICRC guidance for PPP projects – June 9, 2023*



*DG, Management staff, receive Vice Chancellor, David Umahi University of Health Sciences, Prof. Jesse Uneke who led a team of management staff of the University on a courtesy visit – June 16, 2023*



*Team from Backbone Infrastructure Nigeria Limited visit ICRC to discuss PPP Infrastructure Development proposal. Received by DG and other management staff – June 20, 2023*



*DG, Executive Management Committee (EMC) receive delegation from South African High Commission in Nigeria led by High Commissioner Thamsanqa Mseleku to discuss areas of mutual collaboration on PPPs – June 22, 2023.*

**Projects concession to raise N180bn revenue – ICRC**

April/22/2023

By Okeoghene Akubuike

The Infrastructure Concession Regulatory Commission (ICRC), has said that the approval of the concessioning of its two projects by the Federal Executive Council (FEC) would attract N180 billion revenue to Nigeria.

A statement issued in Abuja on Sunday by Ifeanyi Nwoko, Acting Head, Media and Publicity, ICRC, said the projects included the Cassava Bio-mass and Bio-ethanol Value Chain and National Fire Detection And Alarm System (NAFDAS).

Nwoko said the concessioning was to create wealth, reduce poverty, improve food security and nutrition, provide jobs and renewable energy, and reduce carbon footprint.

“While the NAFDAS project will generate a total of N75 billion in the 15-year concession period, the cassava bio-ethanol value chain will generate a total revenue of N105 billion within the five-year concession period

<https://nannews.ng/2023/04/24/projects-concession-to-raise-n180bn-revenue-icrc/>

**Concession: FG to earn N647.7bn from power projects, others**

By Damilola Aina

May 13, 2023

The Federal Government is set to earn N647.7 billion from the concession of two power projects, the E-ticketing of two rail routes and a Device Management System, The PUNCH has learnt.

The two power projects which are the 360 Mega Watts Gurara II Multipurpose Dam and Hydro Power Plant and the 40 MegaWatts Kashimbilla Hydro Power Plant will be concessioned under an operation and Management Public Private Partnership model.

Other projects for concession are; Secure E-ticketing Solutions for the Lagos Ibadan Rail Service and the Warri-Itakpe Rail Service as well as the Device Management System, a project designed by the Nigerian Communications Commission.

According to a statement issued by the ICRC’s acting spokesperson, Ifeanyi Nwoko on Friday in Abuja, the projects will be under the regulatory guidance of the Infrastructure Concession Regulatory Commission.

<https://punchng.com/concession-fg-to-earn-n647-7bn-from-power-projects-others/>

**FG concessions aviation leasing, e-registration of births/deaths**

May 18, 2023

By Collins Olayinka

The Federal Executive Council (FEC) approved the establishment of an Aviation Leasing Company (ALC) under a public-private partnership (PPP) arrangement. It also approved the development of an Electronic Civil Registration and Vital Statistics System (eCRVS), a platform that will effectively keep electronic records of birth and death registrations.

Both approvals were given following the issuance of full business case (FBC) compliance certificates by the Infrastructure Concession Regulatory Commission (ICRC), the agency statutorily established to regulate PPPs.

The ALC, which will be executed by Messrs AJW Consortium as the concessionaire, seeks to provide an opportunity for local leasing of aircraft to both domestic and international carriers, alleviate the problems of aircraft and engine leasing, reduce leasing rates as well as high insurance premium charges to Nigerian airlines.

It will facilitate the ease of doing business for foreign lessors with Nigerian domestic airlines being a one-stop-shop, thereby limiting capital flight and the forex demand.

<https://guardian.ng/business-services/fg-concessions-aviation-leasing-e-registration-of-births-deaths/>

### **DG infrastructure regulatory commission urges governors to embrace PPP**

Mr Joe Ohiani, the Director-General of the Infrastructure Concession Regulator Commission (ICRC) has urged state governors to establish Public Private Partnership (PPP) framework to boost infrastructure development their states.

Ohiani, gave the advice at the ongoing induction programme for newly elected and returning governors organised by the Nigeria Governors' Forum (NGF) in Abuja .

Discussing as a panelist in one of the sessions at the event, Ohiani, advised governors to embrace PPP as alternative vehicle to deliver services to the electorates and also to bridge infrastructural gaps in their states.

He said that presently, only 25 state of the federation had approved the legal framework for PPP in their states.

He said that PPP was not only imperative to close infrastructure gaps but also important for job creation and to boost economic growth both at the state and federal level.

“PPP is a win-win for all the parties. A win for the government in provision of the projects and facilities, a win for the investor who has invested in the project and a win for his citizen who will use the project.

<https://independent.ng/dg-infrastructure-regulatory-commission-urges-governors-to-embrace-ppp/>

### **ICRC appeals to Tinubu Administration on the sustainability of PPP project**



May 29, 2023

By Idu Jude

As Senator Ahmed Bola Tinubu, takes mantle of leadership in the country after a successful swearing, Management of Infrastructure Concession Regulatory Commission ICRC, has appealed to the new leader to key into the Federal Government approved Public Private partnership as a penesea for economic growth.

The Director General ICRC Mr. J. A. Michael Ohiani, made the appeal Monday in Abuja shortly after the new President was sworn in to office.

Mr. Ohiani, who also uses the occasion to congratulate the new President on behalf of the entire staff of ICRC, reminded that from the inception of ICRC in 2010 to date, following the Nations regulatory guidance in line with extant rules and subsequent issuance of Full Business Case (FBC) compliance certificates, a total of 103 PPP projects have been approved by the Federal Executive Council (FEC). These projects he said would bring in private capital investment of almost NGN11 Trillion (approximately USD24 Billion).

Mr. Ohiani, said, “Out of the 103 projects, 94 approvals worth almost NGN9 Trillion (about USD19.5 Billion) were granted in the last 8 years under the administration of President Muhammadu Buhari, GCFR.

And in line with the ICRC Act, 2005; the Commission published in 2022 a list of 53 eligible PPP projects worth USD 23 billion in the pipelines of projects, sequel to their certification as both viable and bankable to be undertaken using PPPs. In addition, the Commission has issued Outline Business Case (OBC) compliance certificates for 174 projects to proceed for procurement”.

<https://sunnewsonline.com/icrc-appeals-to-tinubu-administration-on-the-sustainability-of-ppp-project/>

### **PPPs: South African envoy seeks collaboration with Nigeria**

June 26, 2023

The government of South Africa has sought the collaboration of Nigeria on mutually beneficial infrastructure development through Public Private Partnerships (PPPs).

South Africa High Commissioner to Nigeria, Tharmi Mseleku, disclosed this when he led a team of officials on a courtesy visit to the Director-General of the Infrastructure Concession Regulatory Commission (ICRC), Mr Michael Ohiani, in Abuja at the weekend.

He said although both Nigeria and South Africa were learning from each other in implementing PPPs, there is the need for both nations to rekindle their collaboration and take it to a greater height.

<https://tribuneonlineng.com/ppps-south-african-envoy-seeks-collaboration-with-nigeria/>

**OUTLINE BUSINESS CASE/FULL BUSINESS CASE (FBC) COMPLIANCE CERTIFICATES  
ISSUED BY THE COMMISSION IN THE SECOND QUARTER 2023**

**OBC compliance certificates issued**

S/N	MDA	PPP Project	Date Certificates Issued
1	Federal Ministry of Mines and Steel Development	Concession of the National Iron Ore Mining Company (NIOMCO), Itakpe	April 12, 2023
2	Federal Ministry of Mines and Steel Development	Concession of Ajaokuta Steel Company Limited (ASCL) Ajaokuta	April 12, 2023
3	National Blood Service Commission	Development, Deployment and Management of a National Blood Management System	April 17, 2023
4	Federal Ministry of Works and Housing	Funding Model of the Lagos-Abuja Greenfield Super Highway Project	April 19, 2023

**FBC compliance certificates issued**

S/N	MDA	PPP Project	Date Certificates Issued
1	National Population Commission	Development of an Electronic Civil Registration and Vital Statistics System (ECVRS)	April 5, 2023
2	Nigerian Communication Commission	Deployment of a Device Management System (DMS) Solution	April 11, 2023
3	Federal Ministry of Interior/Federal Fire Service	National Fire Data Repository Centre (NFDRC) Enterprise Unit	April 12, 2023 (Certificate Revalidation)
4	Federal Ministry of Interior	Expatriate Employment Levy (EEL)	April 20, 2023
5	Federal Ministry of Water Resources	Concession of the Gurara II 360 MW Hydropower Project	April 27, 2023
6	Federal Ministry of Water Resources	Operation and Maintenance of 40MW Kashimbila Hydropower Project	April 28, 2023
7	Abuja Infrastructure Investment Centre	Operation and Maintenance of an On-Street Park and Pay Services to be Deployed in Abuja Municipality by BAUMAN Nig. Ltd	April 28, 2023 (Certificate Revalidation)
8	Abuja Infrastructure Investment Centre	Operation and Maintenance of an On-Street Park and Pay Services to be Deployed in Abuja Municipality by NAJEC Limited	April 28, 2023 (Certificate Revalidation)

9	Federal Ministry of Health	Decontamination and Fumigation Project for Vessels arriving all Seaports in Nigeria (Lagos, Rivers, Delta, Calabar, etc)	May 3, 2023 (Certificate Revalidation)
10	National Blood Service Commission	Development, Deployment and Management of a National Blood Management System	May 11, 2023
11	Federal Ministry of Justice	Publishing and Marketing of Court of Appeal (Specialized) Law Report	May 11, 2023
12	Federal Ministry of Transportation	Development of Port of Ondo Multi-purpose Deep Seaport at Erunna/Ogboti	May 12, 2023
13	Federal Ministry of Transportation	Development and Expansion of the Burutu Seaport Complex	May 12, 2023
14	Federal Ministry of Works and Housing	Concession of the Central Workshop, Ijora	May 12, 2023
15	Federal Ministry of Justice	Editorial Services and Publication of the Laws of the Federation of Nigeria (LFN)	May 12, 2023
16	Federal Ministry of Justice	Editorial Services and Publication of the All-Nigeria Law Report (All NLR)	May 12, 2023
17	Federal Ministry of Transportation	Development of Electronic E-Call Up System at Onne Port	May 12, 2023
18	Bureau of Public Enterprise	Operation and Maintenance of Zungeru 700MW Hydropower Plant	May 12, 2023
19	Federal Ministry of Transportation	Digitization of NIWA Business Processes (E-NIWA) and Design of and Implementation of Enterprise Revenue Optimization and Management Systems (E-ROMS)	May 12, 2023
20	Federal Ministry of Aviation	Concession of Mallam Aminu Kano International Airport Kano	May 12, 2023
21	Federal Ministry of Aviation	Concession of Nnamdi Azikwe International Airport Abuja	May 12, 2023
22	National Population Commission	Development of an Electronic Civil Registration and Vital Statistics System (ECVRS)	April 5, 2023
23	Nigerian Communication Commission	Deployment of a Device Management System (DMS) Solution	April 11, 2023

## FEC Approved Projects

S/N	Project Name & Description / Current Status	MDA / Grantor	Approval Date/Duration of Concession	Value of Concession / Project cost
1	<p><b><u>Cassava Bio-mass, Bio-ethanol Value Chain</u></b></p> <p>The conversion of Cassava to Bio ethanol and to harness the value chain along the process.</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Finance Budget & National Planning	Approved: April 19, 2023 Concession Period: 5 Years	11.9bn
2	<p><b><u>National Fire Detection and Alarm System (NAFDAS)</u></b></p> <p>The Federal Ministry of Interior through the Federal Fire Service submitted an unsolicited proposal for a cloud-based system PPP project. This project is designed and deployed to address the shortcomings in information sharing between Fire Alarm Detection Notification and Control Systems, System Administrator, and Fire Service for improved Risk Management through real time analysis and prompt action.</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Interior/Federal Fire Service (FFS)	FEC approval the FBC on April 19, 2023 for 15-year Concession Period	NGN 3,500,000,000
3	<p><b><u>Digitalization of the Fund-wide activities/processes and automation of employee contribution &amp; compensation scheme of the NSITF (E-NSITF (Phase ~2))</u></b></p> <p>This is an integrated Business Management Solution that is designed to digitally transform the organizations operations by providing a consolidated and unified data/information repository targeted at increasing efficiency, agility and output in the daily operations of the NSITF through superior tracking and reporting, database management and data sharing and overall improved information systems.</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Labour & Employment / NSITF	FEC approval the FBC on April 19, 2023 for 15-year Concession Period	NGN 15,000,000,000

4	<p><b><u>Lagos-Ibadan Rail E-Ticketing Concession</u></b></p> <p>Design, Development, Deployment and Management of a Secure Automated Fare Collection (AFC) Solution for the Nigerian Railway Corporation (NRC) Rail Network.</p> <p>PPP Process: Solicited</p>	Nigeria Railway Corporation	Approved: May 10, 2023	NGN 1,100,000,000
5	<p><b><u>Warri-Itakpe Rail E-Ticketing Concession</u></b></p> <p>Design, Development, Deployment and Management of a Secure Automated Fare Collection (AFC) Solution for the Nigerian Railway Corporation (NRC) Rail Network.</p> <p>PPP Process: Solicited</p>	Nigeria Railway Corporation	Approved: May 10, 2023	NGN 860,806,423
6	<p><b><u>Device Management System</u></b></p> <p>The design, financing, operations, maintenance and transfer of a central remote management system to address the proliferation of fake, counterfeit, substandard, and cloned ICT devices in the telecommunications industry in Nigeria.</p> <p>PPP Process: Solicited</p>	Nigeria Communication Commission	Approved: May 10, 2023	US\$26 million
7	<p><b><u>40mw Kashimbilla Hydropower (HPP) Project</u></b></p> <p>Operations and Maintenance of the 40MW Kashimbilla HPP located on the Katsina Ala River in Takum LGA, Taraba State.</p> <p>PPP Process: Solicited</p>	Federal Ministry of Water Resources	Approved: May 10, 2023	NGN 7,680,000,000
8	<p><b><u>360mw Gurara II Multipurpose Dam Project</u></b></p> <p>A greenfield project for the Operation, Maintenance and Transfer of the 360MW HPP plant in Gurara II, on the Gurara River, in Niger State.</p> <p>PPP Process: Solicited</p>	Federal Ministry of Water Resources	Approved: May 10, 2023	US\$ 1.123billion NGN 485,310,631,000

9	<p><b><u>Electronic Civil Registration and Vital Statistics System (eCRVS) Platform</u></b></p> <p>Development of an Electronic Civil Registration and Vital Statistics (eCRVS) through the use of a robust high-end technology structure to capture real time, quality, reliable and verifiable statistics on births, deaths, marriages and divorce and to contribute to the nation's revenue generation through the registration of vital statistics in the country.</p> <p>PPP Process: Unsolicited</p>	National Population Commission	Approved 15 (Special Monday FEC)	NGN 5.3billion
10	<p><b><u>Aviation Leasing Company</u></b></p> <p>The establishment of ALC to alleviate the problem of aircraft leasing and high insurance premium charges to Nigerian Airlines on Aircraft leasing</p> <p>PPP Process: solicited</p>	Federal Ministry of Aviation	Approved May 15, 2023	US\$35,000,000
11	<p><b><u>The Rehabilitation and Expansion of the Burutu Port</u></b></p> <p>Burutu Port is located in Burutu Local Government Area of Delta State. The current Port is on a 40.716 Hectares of Land and was originally built as a logistic Port for the export of Solid minerals and Agricultural Produce as well as importation and transportation of foreign goods from Europe for onward movement to the hinterland River Ports via the inland waterway.</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Transport/Nigerian Ports Authority	FEC approval the FBC on May 17, 2023 for 40-year Concession Period	US\$ 1.28 billion
12	<p><b><u>Port of Ondo Multipurpose Deep-Sea Port</u></b></p> <p>The Port of Ondo is planned to be developed as a greenfield project that aims to serve as a multi-purpose deep seaport. Located along the coast of Ondo State, the port when completed will create one of the most modern ports in Nigeria, with the largest solid minerals terminal located contiguous to an Industrial City with Free Trade Zone (FTZ) status.</p>	Federal Ministry of Transport/Nigerian Ports Authority	FEC approval the FBC on May 17, 2023 for 50-year Concession Period	US\$1.4Billion

	PPP Process: Solicited			
13	<p><b><u>The Expansion and development of Snake Island Multipurpose Sea Port</u></b></p> <p>The proposed Snake Island Terminal is envisioned to be developed as a green port, comprising of 3 terminals with 2.5km of quay, 6 ship berths, 9 barge berths, 6.0 to 16.0 meters of draft and an overall area of 85 hectares.</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Transport/Nigerian Ports Authority	FEC approval the FBC on May 17, 2023 for 45-year Concession Period	US\$ 974.19 mil
14	<p><b><u>On street park and pay in the FCT</u></b></p> <p>The project is a regularization project for the operations and management of an on-street park and pay services to be deployed in Abuja Municipality. The FCT has been divided into several zones to be managed by different operators/concessionaires</p> <p>PPP Process: Unsolicited</p>	Abuja Infrastructure Investment Centre	FEC approval the FBC on May 17, 2023	NGN 475 million (Zone A)  NGN433.3 mil (Zone B)
15	<p><b><u>Expatriate Employment Levy</u></b></p> <p>A project that will place a levy on offshore earnings of expatriates to increase non-oil revenue and support for Nigeria</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Finance, Budget & National Planning (FMBNP)	FEC approval the FBC on May 17, 2023 for 20-year Concession Period	US\$ 95,024,000
16	<p><b><u>Concession of Mallam Aminu Kano International Airport, Kano</u></b></p> <p>The FGN proposed to concession the Murtala Muhammed International Airport Terminal Building, Lagos State as part of aviation sector reform programme to Rehabilitate/Build – Operate and Transfer</p> <p>PPP Process: solicited</p>	Federal Ministry of Aviation	FEC approval the FBC on May 17, 2023 for 30-year Concession Period	US\$ 86 million,

17	<p><b><u>Concession of Nnamdi Azikiwe International Airport, Abuja</u></b></p> <p>The FGN proposed to concession the Nnamdi Azikiwe International Airport Terminal as part of aviation sector reform programme to Rehabilitate/Build – Operate and Transfer</p> <p>PPP Process: solicited</p>	Federal Ministry of Aviation	FEC approval the FBC on May 17, 2023 for 20-year Concession Period	US\$17.48 million
18	<p><b><u>Development of Senior Police officer’s quarters at Ikeja, Lagos</u></b></p> <p>The redevelopment of 6.75 hectare of land at Ikeja into senior police officer’s housing units using 2.1 hectares of the land and use of 4.65 hectares for the development of 130 four-bedroom duplex housing units.</p> <p>PPP Process: Unsolicited</p>	Nigeria Police	FEC approval the FBC on May 17, 2023 for 50-year Concession Period	NGN 7.4 billion
19	<p><b><u>Regularization Process: Editorial Services and Publication of the Laws of the Federation of Nigeria and All Nigeria Law Report</u></b></p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Justice	FEC approval the FBC on May 23, 2023 for 15-year Concession Period	NGN 105.5 million
20	<p><b><u>Publishing and Marketing of Court Appeal (specialized) Law Report</u></b></p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Justice	FEC approval the FBC on May 23, 2023 for 15-year Concession Period	
21	<p><b><u>NIWA Business Processes (E-NIWA)</u></b></p> <p>The Deployment and digitalization and automation of NIWA processes and activities</p> <p>PPP Process: Unsolicited</p>	Federal Ministry of Transportation (FMoT)/ National Inland Waterways Authority (NIWA)	Approved May 23, 2023 30 years	NGN 7 billion
22	<p><b><u>Electronic E-Call Up System at Onne Port</u></b></p> <p>Implementation of the Electronic Truck Call Up system aimed at increasing cargo/truck traffic at Onne Port.</p> <p>PPP Process: Unsolicited</p>	Nigeria Ports Authority	Approved May 23, 2023 15-years	NGN 1.5 billion



23	<p><b><u>700 MW Zungeru Hydro Electric Power Plant</u></b></p> <p>The project is a solicited project initiated by BPE/FMOP for the concession of the operation and maintenance of the hydropower asset.</p> <p>PPP Process: Solicited</p>	Federal Ministry of Power (FMoP)/FMo WR/ Bureau of Public Enterprises (BPE)	FEC Noted the NCP approval of the FBC on May 23, 2023 for 25- year Concession Period	US\$ 1.2 billion
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## FROM THE NIGERIA INSTITUTE OF INFRASTRUCTURE AND PUBLIC PRIVATE PARTNERSHIP (NII3P)

1.0 The Nigeria Institute of Infrastructure and Public Private Partnership (NII3P), established by the ICRC, held the following activities in the second quarter of 2023:

- The Institute coordinated Public Private Partnership Unit Consultative Forum on the 27<sup>th</sup> of April, hosted by the State House.
- Short Infrastructure Course Training on PPP Project Finance/Business Development Plan Training held in Kigali, Rwanda (15<sup>th</sup> - 19<sup>th</sup> May, 2023) participants included staff from different MDAs including Ministry of Aviation, Nigeria Communications Commission (NCC), Nigeria Institute of Transport Technology (NITT), National Mathematical Centre, Nigeria Airspace Management Agency (NAMA) and Nigeria Meteorological Centre (NIMET)
- MBA in PPP students wrote their 3<sup>rd</sup> Semester Examinations and currently working on their projects.

Kindly contact the institute for more details. <https://www.nii3p.org/>

### Quarterly 3PUCF Meeting

The Public Private Partnership Unit Consultative Forum (3PUCF), a knowledge and experience sharing platform, held its first quarter 2023 3PUCF in April owing to the fact that 2023 had a lot of activities bordering on the National Election.

The meeting which was held in the Second Quarter was hosted by the State House.

Director General of the Infrastructure Concession and Regulatory Commission (ICRC), Michael Ohiani who opened the event said that Federal Government remains committed to infrastructure development in Nigeria through Public-Private Partnership (PPP).

According to Ohiani, since the last 3PUCF meeting held in December 2022, the Federal Government has achieved more successes and milestones in major sectors to achieve a PPP economy.

The director-general said the 1st quarter meeting was scheduled for March 2, 2023, but had to be postponed due to the general elections.

Ohiani, who gave a summary of the PPP projects recorded since the last meeting, said there were more projects at the inception stage waiting to commence development.

He said: “We have over 200 projects at different stages of the development and procurement phases.

“In addition to over 40 projects at the implementation phase, I believe that together, we can do even more in the year,” he added.

He listed out some projects the commission had issued Outline Business Case (OBC) Compliance Certificates to include the development of Ports of Ondo Multipurpose Deep-Sea Port and the Benin Port Project in Edo State.

Ohiani said others included the Expansion and Development of Snake Island and the Lagos Multipurpose Sea Port project of the Federal Ministry of Transportation.

“The Burutu Port Complex Phases 1, 2, and 3 projects had the OBC Compliance Certificate revalidated,” Ohiani said

He revealed that in the PPP Procurement Phase, the following had been accomplished, with the issuance of Full Business Case (FBC) Compliance Certificates.



Figure  
*From R-L: DG ICRC, Michael Ohiani with other dignitaries during the 1st Quarter 3PUCF Meeting held on April 27 at the State House Abuja*

The Permanent Secretary, State House, Tijjani Umar, in his address, commended the ICRC for creating a roadmap to handle projects and programmes on infrastructure development through PPP.

“I share the spirit that 10 years from now because we have placed our fingers in the right places and we have planned, execution is guaranteed to be delivered.”

Umar gave his assurances that the state house would work closely with other Ministries, Departments and Agencies (MDAs) for the greater good of the country, adding we should seek ways of using technology to attract viable projects.

He disclosed that the state house in consultation with the Ministry of Finance, Budget and National Planning, identified and tentatively screened three of its projects for possible consideration of final cases of PPP.

“They include the State House Wildlife Sanctuary and Citizen’s Park, State House Medical Centre, and State House Lagos Facility and we have trained our staff to prepare for this” he said.

The Head of the Civil Service of the Federation (HCSF), and Chairman of the meeting, Dr Folashade Yemi-Esan, called on more (MDAs) to create PPP departments.

Yemi-Esan, represented by Mrs Agalasi Ehigie, Director, Infrastructure Management Department, Office of the HCSF, said the ICRC was doing a lot to ensure the infrastructure needs of the country were met.

The forum, which was inaugurated 10 years ago at the State House, provides a platform for PPP departments in MDAs and stakeholders to share ideas, success stories, and challenges on their PPP projects to drive economic growth in Nigeria.

## Congenital disorders



*Congenital Abnormality – Photo Source: [WHO](#)*

### Key facts

- An estimated 240 000 newborns die worldwide within 28 days of birth every year due to congenital disorders. Congenital disorders cause a further 170 000 deaths of children between the ages of 1 month and 5 years.
- Congenital disorders can contribute to long-term disability, which takes a significant toll on individuals, families, health care systems and societies.
- Nine of ten children born with a serious congenital disorder are in low- and middle-income countries.
- As neonatal and under-5 mortality rates decline, congenital disorders become a larger proportion of the cause of neonatal and under-5 deaths.
- The most common severe congenital disorders are heart defects, neural tube defects and Down syndrome.
- Although congenital disorders may be the result of one or more genetic, infectious, nutritional or environmental factors, it is often difficult to identify the exact causes.
- Some congenital disorders can be prevented. Vaccination, adequate intake of folic acid or iodine through fortification of staple foods or supplementation, and adequate care before and during a pregnancy are examples of prevention methods.

### Overview

Congenital disorders are also known as congenital abnormalities, congenital malformations or birth defects. They can be defined as structural or functional anomalies (for example, metabolic disorders) that occur during intrauterine life and can be identified prenatally, at

birth, or sometimes may only be detected later in infancy, such as hearing defects. Broadly, congenital refers to the existence at or before birth.

The proportion of under-5 deaths due to congenital disorders increases as other causes of under-5 deaths are controlled (fig. 1).

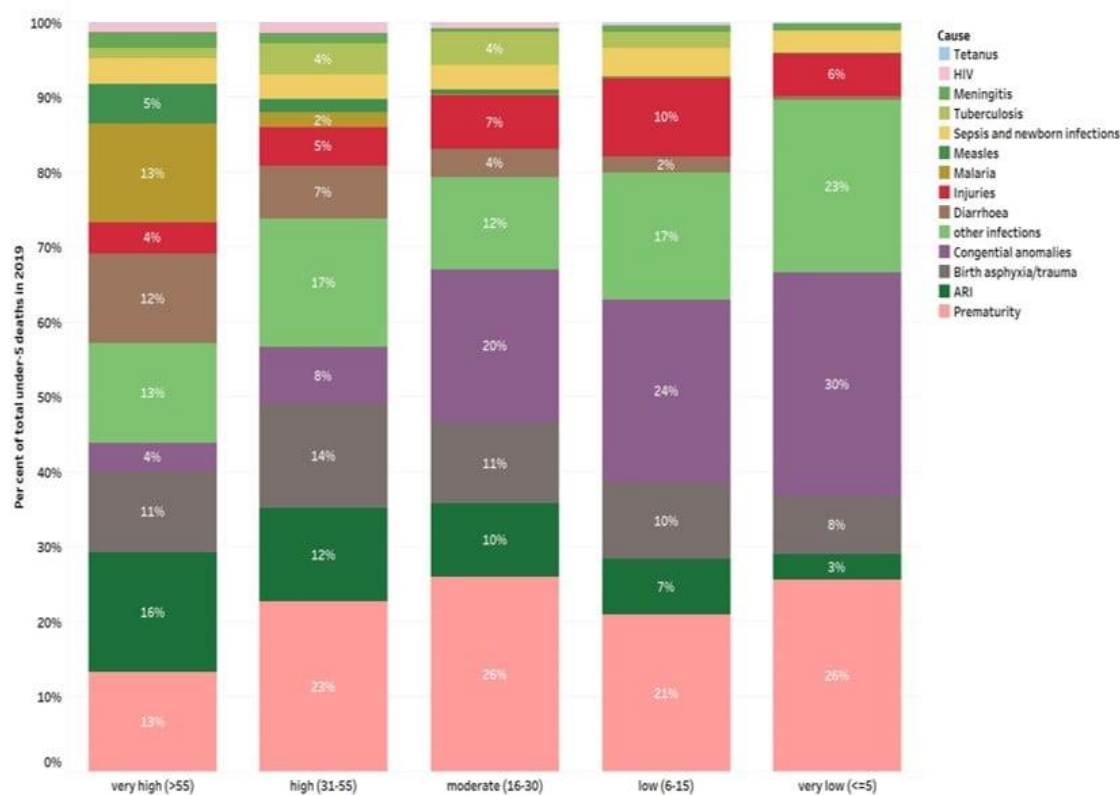


Fig 1: Changes in causes of under 5 deaths as under 5 mortality rates decline

## Causes and risk factors

### Genetic

A minority of congenital disorders are caused by genetic abnormalities i.e. chromosomal abnormalities (for example Down syndrome or trisomy 21) or single gene defects (for example cystic fibrosis).

Consanguinity (when parents are related by blood) also increases the prevalence of rare genetic congenital disorders and nearly doubles the risk for neonatal and childhood death, intellectual disability and other anomalies.

### Socioeconomic and demographic factors

Low-income may be an indirect determinant of congenital disorders, with a higher frequency among resource-constrained families and countries. It is estimated that about 94% of severe congenital disorders occur in low- and middle-income countries. An indirect determinant, this higher risk relates to a possible lack of access to sufficient nutritious foods by pregnant

women, an increased exposure to agents or factors such as infection and alcohol, or poorer access to health care and screening.

Maternal age is also a risk factor for abnormal intrauterine fetal development. Advanced maternal age increases the risk of chromosomal abnormalities, including Down syndrome.

### **Environmental factors including infections**

Others occur because of environmental factors like maternal infections (syphilis, rubella, Zika), exposure to radiation, certain pollutants, maternal nutritional deficiencies (e.g., iodine, folate deficiency), illness (maternal diabetes) or certain drugs (alcohol, phenytoin).

### **Unknown causes**

While complex genetic and environmental interactions are proposed, most congenital disorders have unknown causes, including congenital heart defects, cleft lip or palate and club foot.

## **Prevention**

Preventive public health measures work to decrease the frequency of certain congenital disorders through the removal of risk factors or the reinforcement of protective factors. Important interventions and efforts include:

- ensuring adolescent girls and mothers have a healthy diet including a wide variety of vegetables and fruit, and maintain a healthy weight;
- ensuring an adequate dietary intake of vitamins and minerals, particularly folic acid in adolescent girls and mothers;
- ensuring mothers avoid harmful substances, particularly alcohol and tobacco;
- avoidance of travel by pregnant women (and sometimes women of child-bearing age) to regions experiencing outbreaks of infections known to be associated with congenital disorders;
- reducing or eliminating environmental exposure to hazardous substances (such as heavy metals or pesticides) during pregnancy;
- controlling diabetes prior to and during pregnancy through counselling, weight management, diet and administration of insulin when required;
- ensuring that any exposure of pregnant women to medications or medical radiation (such as imaging rays) is justified and based on careful health risk–benefit analysis;
- vaccination, especially against the rubella virus, for children and women;
- increasing and strengthening education of health staff and others involved in promoting prevention of congenital disorders; and
- screening for infections, especially rubella, varicella and syphilis, and consideration of treatment.

## **Screening, treatment and care**

### **Screening**

Health care before and near conception (preconception and peri-conception) includes basic reproductive health practices, as well as medical genetic screening and counselling. Screening can be conducted during the 3 periods listed:

- Preconception screening:

This can be useful to identify those at risk of specific disorders or of passing a disorder onto their children. Screening includes obtaining family histories and carrier screening and is particularly valuable in countries where consanguineous marriage is common.

- Peri-conception screening:

Maternal characteristics may increase risk, and screening results should be used to offer appropriate care, according to risk. This may include screening for young or advanced maternal age, as well as screening for use of alcohol, tobacco or other risks. Ultrasound can be used to screen for Down syndrome and major structural abnormalities during the first trimester, and for severe fetal anomalies during the second trimester. Maternal blood can be screened for placental markers to aid in prediction of risk of chromosomal abnormalities or neural tube defects, or for free fetal DNA to screen for many chromosomal abnormalities. Diagnostic tests such as chorionic villus sampling and amniocentesis can be used to diagnose chromosomal abnormalities and infections in women at high risk.

- Neonatal screening:

Screening of newborns is an important step towards detection. This helps to reduce mortality and morbidity from congenital disorders by facilitating earlier referral and the initiation of medical or surgical treatment.

Early screening for hearing loss provides an opportunity for early correction and allows the possibility of acquiring better language, speech and communication skills. Early screening of newborns for congenital cataract also allows early referral and surgical correction which increases the likelihood of sight.

Newborns may be screened for certain metabolic, hematologic and endocrine disorders, many of which may not have immediately visible effects. The conditions screened for vary by country, depending on prevalence and cost. Newborn screening is increasingly conducted even in low- and middle-income countries.

## **Treatment and care**

Some congenital disorders can be treated with medical or surgical interventions. Access to this care may vary by country and by different levels of a health system, though complex care is increasingly available in low- and middle-income settings.

Surgery with good follow up care can often mitigate the potential lethality (as in the case of congenital heart defects) or the morbidity (e.g., congenital talipes, cleft lip/palate) associated with structural congenital disorders. The contribution to reducing mortality and morbidity of this aspect of the treatment is often underestimated. Outcomes are improved with early



detection at lower levels of the system through screening, referral and management (at specialist centres in case of some issues like cardiac defects).

Medical treatment for certain metabolic, endocrine and hematological conditions can improve quality of life. A clear example is congenital hypothyroidism, where early detection and treatment allows full physical and mental development to healthy adulthood, whereas a missed diagnosis or unavailability of a simple treatment carries a risk of serious intellectual disability.

Children with some types of congenital disorders may require long term support including physical therapy, speech therapy, occupational therapy and support from families and community.

## WHO response

Through the resolution on birth defects of the Sixty-third World Health Assembly (2010), Member States agreed to promote primary prevention and improve the health of children with congenital disorders by:

- developing and strengthening registration and surveillance systems;
- developing expertise and building capacity for the prevention of congenital disorders and care of children affected;
- raising awareness on the importance of newborn screening programmes and their role in identifying infants born with congenital disorders;
- supporting families who have children with congenital disorders and associated disabilities; and
- strengthening research on major birth defects and promoting international cooperation in combatting them.

Together with partners, WHO convenes annual training programmes on the surveillance and prevention of congenital disorders. WHO is also working with partners to provide the required technical expertise for the surveillance of neural tube defects, for monitoring fortification of staple foods with folic acid, and for improving laboratory capacity for assessing risks for folic acid-preventable congenital disorders and is assisting low- and middle-income countries in improving control and elimination of rubella and congenital rubella syndrome through immunization.

WHO develops normative tools, including guidelines and a global plan of action, to strengthen medical care and rehabilitation services to support the implementation of the [\*United Nations convention on the rights of persons with disabilities\*](#).

<https://www.who.int/news-room/fact-sheets/detail/birth-defects>

## ON A LIGHTER NOTE:

**Me:** I'll do it at 8

**Time:** 8.05

**Me:** looks like I gotta wait till 9 now



### Salary Raise

I told my boss three companies were after me and I needed a raise to stay at my job. We haggled for a few minutes, and he gave me a 25% raise.

Leaving his office, he stopped and asked me, "By the way, which companies are after you?" I responded, "The gas, electric, and cable company."

### The Boss

A man goes into a pet shop to buy a parrot. The shop owner points to three identical-looking parrots on a perch and says, "The parrot on the left costs \$500 dollars."

"Why does the parrot cost so much?" asks the man. The owner says "Well the parrot knows how to use a computer."

The man then asks about the next parrot and learns that it costs \$1,000 dollars because it can do everything the first parrot can do plus it knows how to use the UNIX operating system.

Naturally, the increasingly startled man asks about the third parrot, only to be told that it costs \$2,000 dollars. Needless to say, this begs the question, "What can it do?"

To which the owner replies, "To be honest, I have never seen it do anything, but the other two call him boss!"

## ABOUT THE PUBLICATION

ICRC Bulletin is a quarterly bulletin of the Infrastructure Concession Regulatory Commission under the Presidency of the Federal Republic of Nigeria. This newsletter is a useful tool for communication and is part of the Commission's thrust to engage staff and stakeholders by providing timely, accurate and knowledgeable information on its activities.

We value your views, contributions and opinion. For enquiries, comments and suggestions on this issue, you may email us at [info@icrc.gov.ng](mailto:info@icrc.gov.ng).

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