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| **Telecommunication Development Advisory Group (TDAG)**  **30th Meeting, Geneva, Switzerland, 19-23 June 2023** | A close up of a sign  Description automatically generated |
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|  | **Document TDAG-23/****30-F** |
|  | **19 May 2023** |
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| Comoros | |
| Establishment of a digital observatory in the Union of the Comoros | |
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| **Summary:**  The collection, analysis and dissemination of statistical data and ICT indicators remain the best instrument to measure trends in a country's digital developments. The Comoros has made this choice by setting up a "digital observatory" whose structure and choice of content meet both ITU resolutions, in particular, Resolution 8 (Rev. Kigali, 2022), the regulatory requirements of the Comoros but also, the requests of regional, sub-regional and international bodies (World Bank, UAT, SADC, COMESA, and IOC). The Comoros Observatory is structured to produce a wide range of indicators (network, traffic, access, uses, finances, e-business... etc.). Despite the constant reminders made by ANRTIC to stakeholders on the provision of data, they express reservations about confidentiality. The lack of resources to conduct investigations is an additional source of handicap. These constraints remain and disrupt the proper functioning of the process from collection to dissemination. The report of the Secretary-General on the implementation of resolution 131 (Re. Dubai, 2018), recommends the strengthening of teams dedicated to statistical work and this could at the same time benefit Member States, through increased technical assistance.  **Action required:**  TDAG is invited to take note of this document and provide any guidance it deems necessary.  **References:**  C19/10F, WTDC Resolution 8 (Rev. Kigali) | |

1. **Introduction**

For a long time, the Comoros was rarely mentioned, sometimes absent from studies or analyses relating to international comparisons on statistical data or ICT indicators.

This phenomenon was linked to the lack of a centralized platform, capable of collecting, analysing and publishing relevant and credible indicators. Added to this was an additional difficulty, which persists to this day and is characterized by the reluctance of the players in the sector, particularly the operators, to make available the data necessary for the assessment of developments in the telecommunications market and the sector in general.

In accordance with the considerations raised by Resolution 8 (Rev. Kigali, 2022): entitled: Collection and dissemination of information and statistics according to which  "*many regional and international organizations use statistics compiled and published by the Union and rely on these statistics for their indicators and reports"[[1]](#footnote-1)*

Based on this consideration, today the Union of the Comoros is resolutely committed to making known its trends in the development of ICTs, in order to be able to evaluate and compare itself with other countries. Requests to provide ICT data come from all sides. In addition to the questionnaires regularly sent to ANRTIC by the ITU and to which, we make sure to respond, regional and sub-regional bodies of which the Comoros is a member, UAT (African Telecommunication Union), SADC (Southern African Development Community), COMESA (The Common Market for Eastern and Southern Africa), IOC (Indian Ocean Commission) demand in turn, information on the ICT environment.

However, none of the major players or decision-making bodies in the sector had until recently had an accomplished platform that could gather so much information on ICT indicators.

ANRTIC, as a digital regulatory body and like most of its counterparts, has now equipped itself with an instrument – Digital Observatory – capable of collecting various and varied data from the sector. Data on the deployment of infrastructures, the evolution of access, the traffic supported, their quality, their prices, the financial situation of the sector, as well as the appropriation of digital services by society and the economy.

ANRTIC wishes to use this digital observatory to catch up and be able to provide a wide range of quality indicators. These indicators constitute an essential basis for decision-making and the orientation of public policies, particularly in terms of investment.

1. **Context of the establishment of the "digital observatory" in the Union of the Comoros**

In the impetus of the reforms undertaken in the ICT sector in the Union of the Comoros in recent years and above all, the need to have relevant and reliable information to assess their socio-economic impacts, ANRTIC requested in 2019, the RCIP4 project of the World Bank, to carry out a study on the collection and analysis of data from the sector with a view to acquiring a single measurement instrument dedicated to information on the sector. Beyond this initiative, the approach is consistent with the implementation of Comorian regulations because, Law 14-031 of 17 March 2014, cites among the missions devolved to ANRTIC, the obligation *"to create and make available a database on information and communication technologies in the Union of the Comoros".[[2]](#footnote-2)*

This work led by the Professor Emeritus of Paris Saclay, Laurent GILLE, in collaboration with the ANRITC teams, lasted 2 years (2019 and 2020) and led to the creation of the Digital Observatory, which allows the regulator to have a wide visibility of the global environment of the sector. The Comorian Digital Observatory is ambitious because of its scope of study and the choice of indicators. On the sidelines of the telecommunications market, the Digital Observatory includes uses including electronic money. ICTs, currently perceived as a vector of development, must cover a wider spectrum of indicators in its analyses.

1. **Structure of the Digital Observatory in the Union of the Comoros**

The observatory is exclusively developed in Excel format and delivered with a data production guide. It is designed and structured with 12 levels of indicators:

* Synthetic indices: generally produced by international institutions to assess the level of transformation and serve as a tool for comparison.
* Demographic and macroeconomic indicators: these indicators are the denominator for calculating the rates on digital contributions in the country.
* Indicators on regulatory resources: measures the degree of implementation of the law through the resources allocated (authorizations, rare resource licenses, etc.) .
* Network indicators: products and services are provided from infrastructures and it is therefore necessary to assess its level of development.
* Network access indicators: are necessary to assess the degree of coverage at the national level as well as the uses made of it.
* Traffic indicators: the increase in traffic simultaneously informs the evolution of digital technology from the economic and social angles of the country
* Quality of service indicators: are important parameters for assessing the population's satisfaction levels with the products and services provided by operators.
* Indicators on tariffs: are also necessary to measure and assess the relationship between the budget share committed by users and services.
* Financial indicators: make it possible to assess the real value produced by the sector in the country and the economic transformation induced.
* Indicators on uses: characterize the way in which uses evolve and structure demand.
* Indicators on the digital transformation of companies: e-Business makes it possible to assess the impact of digital technology in the production system.
* E-finance indicators: E-money is now seen as a fully-fledged indicator for measuring the digital transformation of the economy.

This structure is not exhaustive because, depending on needs and the pace of change, other indicators may be added in the future. In addition to the structure, the Observatory is accompanied by other essential documents such as:

* A reference framework specifying for each indicator, its definition, characteristics and scope.
  + An annual report that provides the main lessons learned from the analyses carried out on the basis of the information collected. The report is arranged according to the order and headings of the indicators.
  + A first report produced with the help of Laurent GILLE, was published in 2021 and covers the period 2016 – 2020.

1. **Production planning and actors involved in data collection[[3]](#footnote-3)**

The matrix of the observatory is accompanied by a production schedule that respects the deadlines for submitting annual reports, in particular from operators. The latter are necessary sources for supplying the observatory. In addition to the operators, other actors such as the BCC (Central Bank of the Comoros), the INSEED (National Institute of Statistics), the AGID (Tax Administration), etc. These bodies provide the observatory with macroeconomic information, thus making it possible to assess the contributions of digital technology on the entire national economy.

1. **Production and publication constraints**

Since the publication in 2021 of the first report of the digital observatory, ANRTIC has been confronted with a triple constraint related to the behavior of actors in the sector, particularly telecommunications network operators, the means to be implemented to collect information and general skills.

As for operators, despite regulatory provisions requiring the provision of sector data, they often promote the idea of confidentiality of information transmitted to the regulator. Three types of protected information requiring permission are specified and categorized. Information relating to state security, those protected by copyright and those protected by trade secrets. The regulator has always been confidential in the possession and retention of the data made available to it, however, trust is difficult to establish.

Some information requires the provision of funds, in particular, field surveys conducted by the regulator for the uses or for the measurements of QoS - quality of service. For this activity, ANRTIC has recently set up a "drive test" to carry out basic measurements. However, it is not excluded to acquire more efficient equipment in the future.

In order to maintain and better supply the observatory with reliable data and ensure the regular publication of reports, it is also necessary to strengthen the capacities of ANRTIC executives in charge of this tool.

Among the recommendations made to Member States is efforts "*to harmonize the methods of their national statistical data collection systems with those used at international level".* *[[4]](#footnote-4)* From that point of view, the Union of the Comoros intends to work on adjusting the database of indicators in response to the requests made by regional and international bodies.

**Conclusion**

With a view to assessing and measuring the features of the information society and in accordance with Resolution 8 (Rev. Kigali, 2022), the Comoros has done its part, by setting up a Digital Observatory. An instrument for collecting, analysing and publishing ICT indicators. The latter are useful for establishing sectoral policy guidelines and placing the Comoros in the ranks that suit them at the regional, subregional and international levels. Constraints arising from the reluctance of actors to provide information, means to be implemented to conduct investigations remain. In the light of the figures provided by the Secretary-General's report on the implementation of *Resolution 131 (Rev. Dubai, 2018)* of the *[[5]](#footnote-5)* Plenipotentiary Conference, which reported a low mobilization of human resources by ITU in the work for statistical data (0.9% for ITU compared to 7.9% for the IMF – number of officials responsible for statistics on the total number of officials). It is therefore recommended that additional support be provided to strengthen this activity within ITU. This initiative could also benefit Member States, in particular developing countries which, due to a lack of expertise on the issue, could receive technical assistance.

**ANNEX 1**

**Calendar for collecting, updating, writing and publishing reports**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | T1 | | T2 | | T3 | | T4 | |
|  | T1/1 |  | T1/2 | T2/1 | T2/2 | T3/1 | T3/2 | T4/1 | T4/2 |
| Data collection quarterly | T4 n-1 |  |  | T1 |  | T2 |  | T3 |  |
| UPDATE workbook |  |  | T4 n-1 |  | T1 |  | T2 |  | T3 |
| Publishing workbook |  |  | T4 |  | T1 |  | T2 |  | T3 |
| Collection of annual data |  |  |  | n-1 |  |  |  |  |  |
| Workbook Shift |  |  |  |  | n-1 |  |  |  |  |
| Report writing |  |  |  |  | n |  |  |  |  |
| Publication report |  |  |  |  |  | n |  |  |  |
| Global indices watch |  |  |  |  |  |  |  |  |  |

**ANNEX 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | A | B | C | D | E | F | G | H | I | J | K | L |
| UIT |  |  |  |  |  |  |  |  |  |  |  |  |
| World Bank |  |  |  |  |  |  |  |  |  |  |  |  |
| GSMA |  |  |  |  |  |  |  |  |  |  |  |  |
| UN |  |  |  |  |  |  |  |  |  |  |  |  |
| WEF |  |  |  |  |  |  |  |  |  |  |  |  |
| A4AI |  |  |  |  |  |  |  |  |  |  |  |  |
| M-Lab |  |  |  |  |  |  |  |  |  |  |  |  |
| Cable.co.uk |  |  |  |  |  |  |  |  |  |  |  |  |
| INSEED |  |  |  |  |  |  |  |  |  |  |  |  |
| BCC |  |  |  |  |  |  |  |  |  |  |  |  |
| ANRTIC |  |  |  |  |  |  |  |  |  |  |  |  |
| AFRINIC |  |  |  |  |  |  |  |  |  |  |  |  |
| Comoros Telecom |  |  |  |  |  |  |  |  |  |  |  |  |
|  | A | B | C | D | E | F | G | H | I | J | K | L |
| Telma Comoros |  |  |  |  |  |  |  |  |  |  |  |  |
| Comoros Cables |  |  |  |  |  |  |  |  |  |  |  |  |
| ORTC |  |  |  |  |  |  |  |  |  |  |  |  |
| Other providers |  |  |  |  |  |  |  |  |  |  |  |  |
| ANADEN |  |  |  |  |  |  |  |  |  |  |  |  |
| AGID |  |  |  |  |  |  |  |  |  |  |  |  |
| Data accessible via the internet | |  |  |  |  |  |  |  |  |  |  |  |
| Data accessible by collection from stakeholders | |  |  |  |  |  |  |  |  |  |  |  |

The letters characterize the category to which the indicator belongs.

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1. Point (g) – considerations Resolution 8 (Rev. Kigali, 2022) [↑](#footnote-ref-1)
2. Article 9, law 14-031 of 17 March 2014 [↑](#footnote-ref-2)
3. Annex 1 and 2 [↑](#footnote-ref-3)
4. Resolution 8 (Rev. Kigali, 2022) – point 6) invitations to member states and members of the sector. [↑](#footnote-ref-4)
5. Point 3 - assessment of resource requirements for ITU's work on statistical data,

   [↑](#footnote-ref-5)