



**INTERNATIONAL TELECOMMUNICATION UNION**  
**Telecommunication Development Bureau**  
Telecommunication Statistics and Data Unit

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**20 December 2002**  
**Original: French**

**3<sup>rd</sup> World Telecommunication/ICT Indicators Meeting**  
*Geneva, 15 - 17 January 2003*

**Document:** WICT-13E

**Source:** Kouakou Germain Yao  
National Statistical Institute

**Title:** Collection and dissemination of telecommunication statistics in Côte d'Ivoire



CÔTE D'IVOIRE  
Unity – Discipline – Work\_



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WORLD TELECOMMUNICATION/ICT INDICATORS MEETING

**COLLECTION AND DISSEMINATION OF  
TELECOMMUNICATION STATISTICS IN  
CÔTE D'IVOIRE**

ABIDJAN, DECEMBER 2002

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## **INTRODUCTION**

In this paper, the National Statistical Institute of Côte d'Ivoire would like to share its modest experience in the collection and dissemination of telecommunication statistics.

### **I INTRODUCTION TO THE NATIONAL STATISTICAL INSTITUTE**

The National Statistical Institute (*Institut national de la Statistique*) of Côte d'Ivoire is the official body responsible for statistical, economic and financial information. It was established as a department of the Ministry of Planning shortly after independence and, since then, has continued to develop, eventually becoming a State enterprise in 1996.

Its main task is to collect raw data (censuses, surveys, etc.), provide subsequent analysis and produce national reports.

There are a number of other bodies containing statistical divisions (sections of ministries, the autonomous port authority of Abidjan, etc.). The Institute assists with the general coordination of activities and the centralization of data from all bodies involved in the generation of statistics. The overall statistical plan provides for all sections of ministries involved in the generation of statistics to be attached to the Institute, but this plan has yet to be implemented.

The Institute has approximately 250 staff, mostly consisting of statisticians, demographic or IT experts, and production support staff.

The Institute comprises various departments, divisions and sections. The following is a simplified organization chart of the Institute, in order of superiority:

- Board of Directors
- Directorate General

Bodies attached to the Directorate General:

- Cartography Division;
  - IT Division;
  - regional directorates.
- Departments

The various departments and subdivisions:

- Department of Human Resources, Legal and Social Affairs
  - Human Resources Division;
  - Legal and Social Affairs Division.
- Department of Coordination, Cooperation, Engineering and Dissemination
  - Coordination and Cooperation Division;
  - Engineering and Methodology Division;
  - Dissemination, Documentation and Archives Division.
- Department of Financial Affairs
  - Accounting and Finance Division;
  - General Resources, Equipment and Maintenance Division.
- Department of Economic Statistics
  - Economic Synthesis Division;
  - Agricultural, Mining and Environmental Statistics Division;

- Trade and Enterprise Division.
- Department of Demography and Social Statistics
  - Demography Division;
  - Social Statistics Division.

## **II COLLECTION OF TELECOMMUNICATION DATA**

In general, there are three methods used by the Institute for gathering statistical data: surveys, the collection of data from other bodies involved in the generation of statistics, and the Financial Data Bank (FDB). FDB, formerly a section of the Ministry of the Economy and Finance, has been integrated into the Institute with a view to making efficiency gains. All enterprises engaged in activities in Côte d'Ivoire are required by law to submit a standard accounting document to FDB. This document contains the following elements:

- Identification sheet containing details of the enterprise (name, activity, address, telephone number, etc.).
- Information concerning the directors, main shareholders and partners.
- Balance sheet.
- Statement of earnings.
- Table of financial resources.
- The following 13 attached tables:
  - Table 1: Fixed assets;
  - Table 2: Amortization;
  - Table 3: Capital gains and losses;
  - Table 4: Balance sheet provisions;
  - Table 5: Assets on lease or under similar contracts;
  - Table 6: End-of-year receivables;
  - Table 7: End-of-year financial obligations;
  - Table 8: Intermediate consumption during current financial year;
  - Table 9: Breakdown of results and other features over the last five financial years;
  - Table 10: Planned allocation of earnings from current financial year;
  - Table 11: Staff, wage bill and external employees;
  - Table 12: Output of current financial year;
  - Table 13: Purchases of inputs.

All modern enterprises, which means those that are legally established and registered with the taxation authorities, are required to submit their accounting documents to FDB. The informal sector, which includes all undeclared activities, operates in parallel to such enterprises. Thus, in order to estimate output or any other statistic for a particular sector, an estimate for informal activity must be added to the data collected by FDB.

In some sectors, no informal activity takes place. The existence of an informal sector is linked to the level of technical expertise required to carry out the activities of the sector. The telecommunication sector contains only a small number of enterprises, all of which are modern and duly registered, owing to the modern technology used in the sector.

Consequently, the accounting documents collected by FDB are a reliable basis for calculating most statistics for the telecommunication sector. However, the data collected in these documents alone are not sufficient, because they do not provide precise details of variables such as the number of users, number of calls, average call length, and so on.

At the moment, such data are not collected systematically by the Institute. If, for any reason, the Institute needs such data, it obtains it either from the Telecommunication Agency of Côte d'Ivoire, or from the enterprises of the sector, most of which compile their own statistics.

Apart from FDB, the second method used by the Institute to obtain telecommunication data is through periodic surveys. The two main surveys are as follows:

- daily consumer price index;
- survey of household living standards.

The questionnaires for both surveys include telecommunication variables such as the price of telephone calls (for the price index), and expenditure on communications and the number of telephone-owning households (for the survey of living standards).

### **III DISSEMINATION**

The Institute has a Dissemination, Documentation and Archives Division with responsibility for publishing its statistical output. However, none of its publications are concerned entirely with telecommunications. Only the Telecommunication Agency of Côte d'Ivoire publishes an annual review entitled *Panorama des télécommunications*. Nevertheless, some National Statistical Institute publications, particularly national reports concerning the "telecommunication and postal services" sector, provide valuable telecommunication data, relating to output, intermediate consumption, import and export, value added, and so on.

In its published form, the consumer price index lacks sufficient detail to provide telecommunication data, but the information contained therein is collected nevertheless.

Similarly, the results published from the survey of living standards do not focus particularly on telecommunications, but relevant details can be found in the data collected from households.

## **IV ORGANIZATION OF THE TELECOMMUNICATION SECTOR**

### **1 Regulatory bodies**

There are three telecommunication regulatory bodies in Côte d'Ivoire: the Government of Côte d'Ivoire, the Telecommunication Council and the Telecommunication Agency of Côte d'Ivoire.

- **The Government**

The Government:

- defines policies and proposes legislation designed to provide an adequate response to telecommunication needs;
- develops the main orientations, guiding principles and objectives for securing dynamic and harmonious development of the telecommunication sector;
- represents Côte d'Ivoire in accordance with national priorities in both national and international institutions;
- defines the technical standards and specifications applicable in Côte d'Ivoire, in accordance with competent national and international bodies in the telecommunication sector;

- ensures that regulation and supervision of the telecommunication sector, on one hand, and the operation of networks and provision of telecommunication services, on the other, are carried out in an independent manner.

- **The Telecommunication Council**

The functions of the Telecommunication Council are as follows:

- to enforce the principle of equal treatment for all telecommunication sector operators;
- to enforce the provisions contained in conventions, specifications and licences issued by the Government;
- to act as an arbitrator in disputes arising from telecommunication activities.

The Telecommunication Council of Côte d'Ivoire comprises seven members, including a chairman, all of whom are prominent persons chosen for their experience, interest in telecommunications and moral integrity, and appointed by presidential decree for a renewable term of five years.

- **The Telecommunication Agency of Côte d'Ivoire**

The functions of the Telecommunication Agency of Côte d'Ivoire are as follows:

- to enforce telecommunication laws;
- to define the principles and approve the rates charged for services provided under the monopoly system;
- to issue operating licences for services provided under the monopoly system;
- to approve terminal equipment;
- to manage and control the radio-frequency spectrum;
- to assist the State with matters of national defence and law and order;
- to assist in carrying out tasks on behalf of the State, in matters of public interest, insofar as the Government delegates such tasks to the Agency in respect of activities in the telecommunication sector.

The Agency has two governing bodies: the Board of Directors, comprising nine members appointed for five-year terms, and the Directorate General.

## **2 *Telecommunication sector operators***

The telecommunication sector may be divided into the following three subsectors:

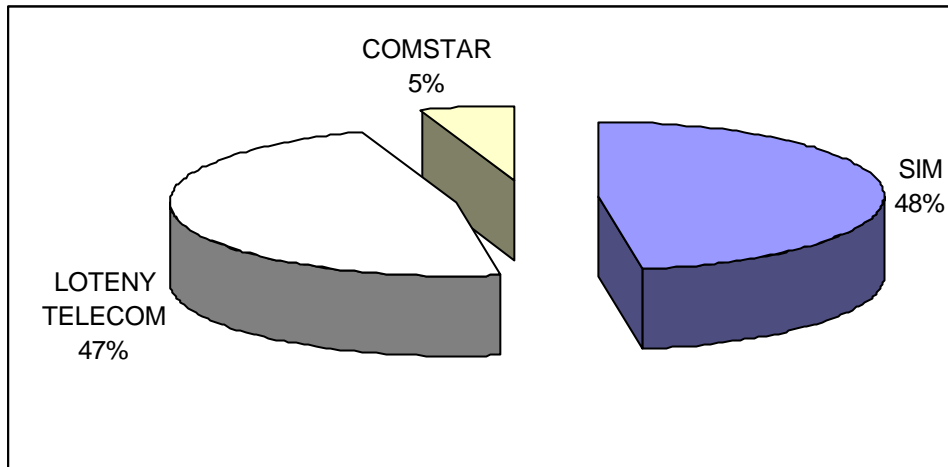
- telephony
- Internet
- VSAT data transmission

The telephony subsector comprises four operators:

- for fixed telephony, Côte d'Ivoire Télécom;
- for mobile telephony, COMSTAR, SIM and LOTENY TELECOM.

Shares of the mobile telephony market in 2001 were as follows:

**Graph 1: Proportion of mobile telephone users per operator**



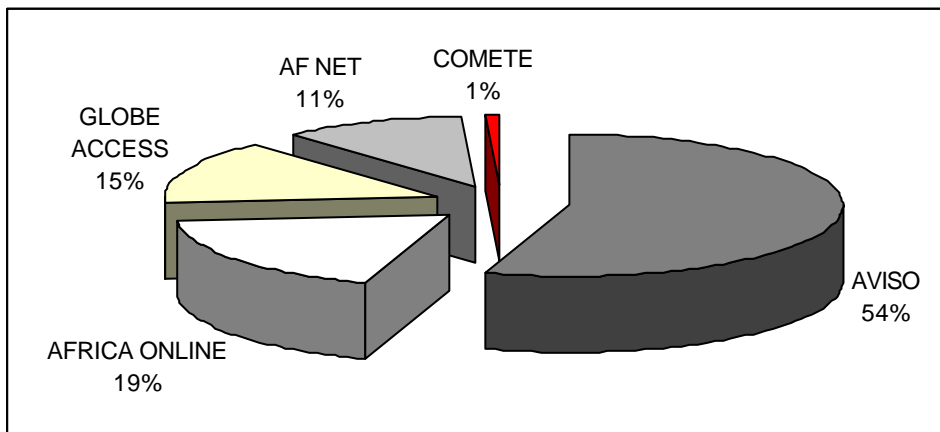
**Source: Telecommunication Agency of Côte d'Ivoire**

The Internet subsector comprises five operators, listed as follows, in order of magnitude:

- AVISO
- AFRICA ONLINE
- GLOBE ACCESS
- AF NET
- COMETE

Shares of the market in 2001, in terms of the number of users, were as follows:

**Graph 2: Proportion of Internet users per operator**



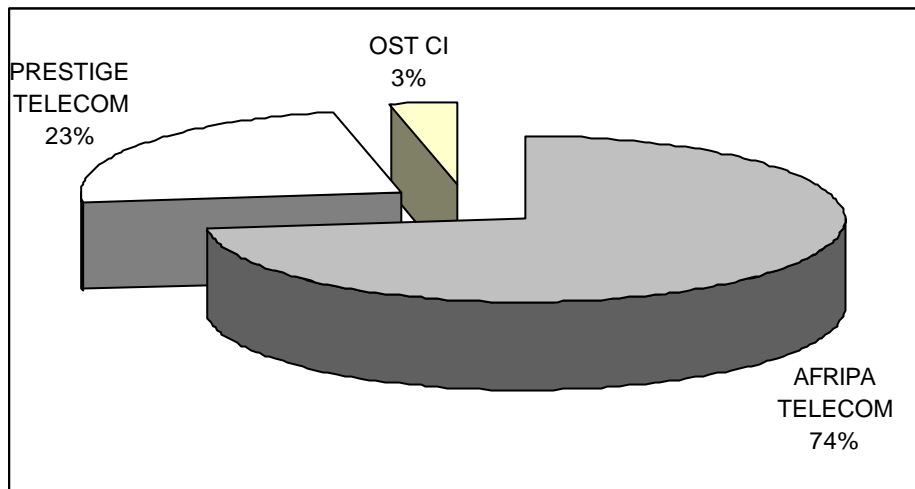
**Source: Telecommunication Agency of Côte d'Ivoire**

Finally, the VSAT subsector comprises three operators:

- AFRIPA TELECOM
- PRESTIGE TELECOM
- OST CI

Shares of the market in 2001, in terms of the number of users, were as follows:

**Graph 3: Proportion of users per operator**



Source: Telecommunication Agency of Côte d'Ivoire

## V TELECOMMUNICATION STATISTICS IN CÔTE D'IVOIRE

### 1 Trends in the number of users

**Table 1: Trends in the number of users by type of telecommunication**

TYPE OF OPERATOR	1996	1997	1998	1999	2000	2001
FIXED TELEPHONY			148 443	218 283	263 667	293 568
MOBILE TELEPHONY	8 004	36 005	91 212	257 134	472 952	728 545
INTERNET			3 270	5 896	10 477	13 722
VSAT						184

Source: Telecommunication Agency of Côte d'Ivoire

**Table 2: Growth rate in the number of users**

TYPE OF OPERATOR	1996	1997	1998	1999	2000	2001
FIXED TELEPHONY				47%	21%	11%
MOBILE TELEPHONY		350%	153%	182%	84%	54%
INTERNET				80%	78%	31%

Between 1998 and 2001, there was a sharp increase in the number of users of telecommunication services, especially for mobile telephony, which was only introduced in Côte d'Ivoire in 1996. However, the growth rate also slowed steadily in all areas of telecommunications between 1998 and 2001.

## 2 Trends in charges according to the consumer price index

**Table 3: Trends in telephone call charges (in CFA francs)**

CATEGORY	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01
Telephone call from private phone box	113	113	119	119	119	119	119	125	119	119	119
Telephone call from automatic phone box	120	120	120	120	120	120	90	110	110	110	110
Local call	78	78	78	105	105	105	105	105	105	105	105

CATEGORY	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02
Telephone call from private phone box	119	119	119	119	125	125	125	125	125	125	125
Telephone call from automatic phone box	110	110	110	110	110	110	110	110	110	110	110
Local call	105	105	105	156	156	156	156	156	156	156	156

**Source: National Statistical Institute**

Phone boxes are installed at the side of the road and can be used to make calls by inserting the correct money. Private phone boxes are managed by an individual with responsibility for measuring the length of the call and determining how much to charge the client.

A magnetic card containing an electronic chip is required to use an automatic phone box, whereby the cost of the call is subtracted from the initial amount on the card.

A local call is a call charged at the rate set by the company CI-TELECOM for calls within the same town.

Rates for local calls vary very little, since they are controlled by the monopoly.

## 3 Employment in the telecommunication sector

**Table 4: Employment in telecommunications**

TYPE OF OPERATOR	1996	1997	1998	1999	2000	2001
FIXED TELEPHONY			3 035	2 887	2 797	2 456
MOBILE TELEPHONY	117	414	407	603	933	1 059
INTERNET			86	110		124
VSAT					62	172

**Source: Telecommunication Agency of Côte d'Ivoire**

Telephone operators are classed as large enterprises in terms of both number of employees and turnover. The number of employees at CI-TELECOM has fallen steadily since 1998, while the number of employees of mobile telephone operators has continued to rise over the same period.

#### 4 *Importance of the sector to the national economy*

***Table 5: Share of telecommunication services in the national wealth***

<b>YEAR</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>GDP</b>	6 210	6 842	7 458	7 734	7 605
<b>Added value of telecommunication and postal services</b>	92	87	114	132	130
<b>%</b>	1.48%	1.27%	1.53%	1.71%	1.71%

NOTE – Amount in billion CFA francs.

**Source: National Statistical Institute**

The amount of added value in the telecommunication and postal sector has fluctuated between 1996 and 2000. The sector accounts for approximately 1.5% of GDP.

#### 5 *Some telecommunication indicators from the survey of living standards*

***Table 6: Proportion of telephone-owning households by region in 2002***

<b>REGIONS</b>	<b>YES</b>		<b>NO</b>		<b>TOTAL</b>
	<b>NUMBER</b>	<b>%</b>	<b>NUMBER</b>	<b>%</b>	
CENTRE	14 340	6.86	194 612	93.14	<b>208 952</b>
CENTRE-WEST	9 482	10.13	84 101	89.87	<b>93 583</b>
CENTRE-NORTH	46 587	19.34	194 350	80.66	<b>240 937</b>
CENTRE-WEST	32 766	8.09	372 293	91.91	<b>405 059</b>
NORTH	22 307	11.54	171 065	88.46	<b>193 372</b>
NORTH-EAST	6 718	5.66	112 041	94.34	<b>118 759</b>
NORTH-WEST	3 942	4.43	85 096	95.57	<b>89 038</b>
WEST	15 389	4.32	340 440	95.68	<b>355 829</b>
SOUTH	95 567	16.97	467 493	83.03	<b>563 060</b>
SOUTH-WEST	18 863	6.70	262 877	93.30	<b>281 740</b>
ABIDJAN CITY	286 262	45.79	338 963	54.21	<b>625 225</b>
<b>TOTAL</b>	<b>552 223</b>	<b>17.39</b>	<b>2 623 331</b>	<b>82.61</b>	<b>3 175 554</b>

Yes: Household with a telephone; No: Household without a telephone

**Source: National Statistical Institute**

The number of telephone-owning households is proportionate to the degree of urbanization of a given region. Thus, the South, where most large towns are situated, and the Centre-North district, which contains Bouaké, the country's second city, have the highest rates, with 16.97% and 19.34%, respectively, behind Abidjan (45.79%).

***Table 7: Proportion of households by type of telephone and by region in 2002***

REGIONS	FIXED TELEPHONE		MOBILE		BOTH		TOTAL
	NUMBER	%	NUMBER	%	NUMBER	%	
CENTRE	4 850	33.8	7 371	51.4	2 119	14.8	14 340
CENTRE-WEST	2 266	23.9	6 020	63.5	1 196	12.6	9 482
CENTRE-NORTH	11 738	25.2	23 852	51.2	10 997	23.6	46 587
CENTRE-WEST	7 717	23.6	20 475	62.5	4 574	14.0	32 766
NORTH	4 709	21.1	16 137	72.3	1 461	6.5	22 307
NORTH-EAST	2 329	34.7	3 067	45.7	1 322	19.7	6 718
NORTH-WEST	1 787	45.3	1 198	30.4	957	24.3	3 942
WEST	3 615	23.5	9 897	64.3	1 877	12.2	15 389
SOUTH	24 711	25.9	45 427	47.6	25 329	26.5	95 467
SOUTH-WEST	1 143	6.1	15 329	81.3	2 391	12.7	18 863
ABIDJAN CITY	43 844	15.3	186 405	65.1	56 013	19.6	286 262
<b>TOTAL</b>	<b>108 709</b>	<b>19.7</b>	<b>335 178</b>	<b>60.7</b>	<b>108 236</b>	<b>19.6</b>	<b>552 123</b>

**Source: National Statistical Institute**

This table shows that households prefer mobile to fixed telephony. The connection time for a fixed line may account for this preference.

***Table 8: Telecommunication expenditure per household in 2002***

<b>REGIONS</b>	<b>NUMBER OF HOUSEHOLDS</b>	<b>ANNUAL EXPENDITURE (in 1 000 CFA francs)</b>	<b>EXPENDITURE PER HOUSEHOLD (in 1 000 CFA francs)</b>
CENTRE	209 506	1 111 468	5
CENTRE-WEST	93 650	1 186 388	13
CENTRE-NORTH	241 471	6 528 689	27
CENTRE-WEST	405 060	3 828 153	9
NORTH	193 674	2 041 826	11
NORTH-EAST	118 759	367 393	3
NORTH-WEST	89 038	521 540	6
WEST	355 829	2 513 563	7
SOUTH	563 101	21 127 198	38
SOUTH-WEST	281 740	2 688 518	10
ABIDJAN CITY	625 520	47 061 529	75
<b>TOTAL</b>	<b>3 177 348</b>	<b>88 976 265</b>	<b>28</b>

**Source: National Statistical Institute**

The table shows consumer expenditure on both telecommunication and postal services. This accounts for the fairly low level of expenditure per household because, on one hand, many households do not own a telephone and, on the other, postal services are relatively cheap.

### **CONCLUSION**

The National Statistical Institute of Côte d'Ivoire does not collect a large amount of telecommunication data at present. However, this weakness is likely to be corrected, in view of the increasing prospects for the Institute to develop and broaden its scope.