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IVORY COAST

SECONDARY CITIES SITE SELECTION

APRIL 1984

Office of Housing and Urban Programs
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IVORY COAST
HOUSING GUARANTY PROGRAM
SECONDARY CITIES SITE SELECTION

I. INTRODUCTION

A. Program Objectives

Housing Guaranty loan 004 is currently being implemented in 13 secondary cities of the Ivory Coast. It is anticipated that, because of favorable exchange rates and other factors, there will be funding available to expand activities into other cities. It is also planned to concentrate the efforts of the next HG loan (006) in secondary cities of the Ivory Coast. In preparation for these future activities, the RHUDO/WA in Abidjan requested a study be done to establish criteria and a procedure for the identification of settlements which could receive the greatest benefit from investment in housing and urban infrastructure. Objectives for activities in interior cities in the Ivory Coast include:

- To improve the living conditions of low-income residents of secondary cities. Programs will be designed to respond to the unique needs and conditions of residents of each settlement.

- To support regions and settlements with the greatest potential for economic growth and employment generation. In light of the present economic problems in the Ivory Coast, it is important that limited funds be used to create the maximum economic benefit.

- To coordinate USAID activities with past investment, both rural and urban and with future activities of the GOIC and other international agencies.

- To develop procedures for program identification, project management and cost recovery that will be replicable in other secondary cities.

- To achieve greater equity in the investment in interior cities. This objective is not necessarily compatible with the other objectives to support economic potential and may require compromise between the two.

The funding proposed for the HG program (around $19-20 million over several years) can have a beneficial impact on the urban environments in the interior, but is not an investment of sufficient magnitude to have a major influence on the demographic changes taking place in the Ivory Coast. Caution must also be taken not to divide the available funds between so many settlements that activities have little or no impact. Therefore, the selection process will seek to identify a limited number of regions and settlements with a strong potential for economic development and to identify those activities which will strengthen these cities.

B. Selection Process

An effort has been made, not to overcomplicate the process since the information base is often limited for interior cities, but to take advantage of existing data, thus requiring no additional survey work. A computerized methodology for the evaluation of potential target settlements was also used. Indications are that investment is needed in all secondary settlements, so the main objective will be to determine where investment will have the greatest impact. The steps of the selection process are:

1. **Regional Analysis.** Demographic and economic indicators of relative strength and growth potential have been used to evaluate the seven geographic regions of the Ivory Coast.

2. **Settlement Analysis.** The potential for employment creation and economic development for 46 of the largest secondary cities was evaluated using demographic and economic indicators. The administrative status of settlements was also considered.

3. **Matrix of Regions and Settlements.** The combination of the two analyses indicates which groups of settlements have the best development potential and should therefore be given priority for HG funding.

4. **Site Visit and Program Identification.** The next step in the process will be site visits to make a more detailed assessment of conditions, to meet with local officials and to delineate an investment program. A checklist and outline of activities to complete this phase of the selection process are included in the report.

C. Relationship to the Selection Process for the World Bank Interior Cities Project

The World Bank undertook a detailed study of the financial and administrative structure of secondary cities. They looked at a larger group of settlements (87, as compared to 46), including over 40 settlements with populations of less than 10,000. The study should provide a valuable source of data for the program identification and final selection for the HG projects.

One of the main differences between selection procedures is that the World Bank set a quota system to assure that a representative sample of all types of settlements is included in their project. The quotas are based on:

- the position in the urban hierarchy;
- the administrative status; and
- the geographical situation.

Each division of the above categories will be represented in the final 12 towns selected for project activities, regardless of their rating resulting from an evaluation of the towns, based on past development activities, the existence of urban

planning documents, economic activities and the responsiveness of local authorities. The higher ranking towns in each of the categories will be considered as candidates for future project activities.

The USAID selection process is more statistically based, with a greater emphasis on the economic and employment generation potential of proposed project sites. There is a potential for overlap between the two programs but, since this would likely occur in larger cities, there should be no problems as long as activities are coordinated.

II. REGIONAL ANALYSIS

The seven geographical and political regions were used for this analysis. Indicators of population growth, agricultural production, manufacturing and processing and government investment were used to rate the development potential of the regions. For each category the regions were rated on a scale of 0 to 3, with the total score determining the final ranking. (See Table 1)

The source for population figures was the 1981 edition of "Cote d'Ivoire en Chiffres", which has the 1975 and estimated 1981 populations for each region. The largest percentage increase has occurred in the South West (37.4 percent) with the smallest increase in the North (6.5 percent). The greatest numerical increase has occurred in the South (320,000) and Center (293,800) regions with the smallest increase in the North (40,500).

Because of the dominance of agriculture in the Ivorian economy, the strength of this sector will continue to have a major impact on the development potential of interior settlements. Changes in agricultural production between 1973 and 1979, as well as total production in 1981, were used to evaluate the regions. The greatest percentage increase in agricultural production was in the South West (45.5 percent), which also had the lowest production in 1981 of 354,000 tons. The dominate regions in terms of production are the Center and South regions with the greatest increases in the value of production and in tonnage of production in 1981. The weakest regions are the South West, East and North.

The same pattern exists when looking at the figures for value added to the traditional sector. The Center and South are the strongest with the South West, East and North having the least activity. The per capita investment of two regions stands out from the others. The South West, which has a very high investment of 112,100 per capita, and the East has a low investment of 2,900 FCFA per capita.

III. SETTLEMENT ANALYSIS

As could be anticipated, the regions in the primarily forested areas of the South rated highest, with the Center region coming out on top, while the sparsely-populated savannah regions to the north received the lowest ratings. The third-place ranking of the South West region results from the high percentage increases in population and production and the high per capita investment and indicates a potental for greater development.

TABLE 1

REGIONAL EVALUATION

	REGIONS						
	South	South W	West	Center W	Center	East	North
Population							
% of Increase 1975-81	23.5 (2)	37.4 (3)	16.2 (1)	5.9 (2)	17.5 (1)	14.7 (1)	6.5 (0)
Increase 1975-81 (000s)	320.0 (3)	73.1 (1)	19.2 (1)	202.5 (2)	293.8 (3)	54.7 (0)	40.5 (0)
Agriculture							
% Increase Value Production 1975-79	11.7 (0)	45.4 (3)	36.2 (2)	2.4 (1)	22.1 (1)	37.2 (2)	38.8 (2)
Increase Value Production 1975-79 (CFA Millions)	5,529 (2)	3,673 (1)	5,062 (2)	5,514 (2)	6,700 (3)	2,097 (0)	3,062 (1)
Production 1981 (000 Tons)	2,532 (3)	354 (1)	903 (2)	985 (2)	1,922 (3)	463 (1)	543 (1)
Financial							
Value Added Traditional Sector (1975 CFA Billions)	59 (3)	6 (1)	21 (2)	4.5 (2)	63 (3)	11 (1)	21 (2)
Per Capita Investment 1973-82 (1981 CFA 000s)	17.0 (1)	112.1 (3)	13.7 (1)	4.9 (1)	27.0 (2)	2.9 (0)	26.0 (2)
Score	14	13	11	12	16	5	8
Ranking	2	3	5	4	1	7	6

The settlement analysis has been done using secondary source materials and the National Urban Policy Study (NUPS) Methodology developed by PADCO. The principal sources of data needed to utilize the NUPS Methodology for the Ivory Coast were project reports prepared by USAID, the World Bank and the International Monetary Fund (IMF). It is intended to serve as one of several inputs to assist the Government of the Ivory Coast (GOIC) and USAID in the selection of settlements for the secondary cities HG Project. While the Methodology is not intended to give definitive answers, it does indicate those settlements which have the greatest potential for economic development and employment generation.

The NUPS Methodology analytically relates the macro-economy and the urban settlement system of a country. It does this essentially by estimating the number of urban jobs the economy will generate in the medium run and allocating these jobs and the resulting total urban population to settlements according to efficiency or other criteria. At the same time, the Methodology provides forecasts of resources available for investment in urban areas and of the costs of creating urban jobs and providing services to the urban population.

It is not the intention of this study to discuss the details of the Methodology, since that is available from other sources, but only to present what detail is felt to be needed to understand the results and conclusions of the study for the Ivory Coast. Annex A contains an analysis of the results of the model, as well as the detailed printouts which contain additional information which was not used for the settlement analysis.

The criteria used to select settlements for analysis using the NUPS Methodology were:

- All settlements with the status of Commune.
- All settlements with a population of more than 10,000 in the 1975 census.

This resulted in the selection of 46 secondary cities and Abidjan with at least one city in each of the seven geographical regions. (Table 2) Because of its dominance in the settlement hierarchy, Abidjan and its satellite settlements were considered separately from the South region.

Based on economic projections and demographic and employment data, the NUPS Methodology calculates a "least cost" solution for the distribution of employment among the urban settlements. The least cost procedure allocates the greatest number of jobs to the cities with the lowest marginal costs of job creation. In other words, this procedure allocates urban growth to the cities where it can occur in the most economically efficient manner. The allocation of population and employment for 1985-1990 is shown in Table 3. The change in employment and the average annual employment growth rates were used in the ranking of the interior settlements. Cities were rated on a scale of 1 to 6 for employment growth rates (shown as a decimal in Table 3) and a scale of 1 to 8 for change in employment.

Since involvement of local officials and the improvement for administrative and cost recovery procedures are important goals for the project, the administrative status of the settlements has also been considered. Settlements with the status of communes were

TABLE 2

SETTLEMENTS BY REGION

Region	Settlement
Greater Abidjan	Abidjan
	Grand Bassam
	Anyama
	Bingerville
South	Divo
	Abengourou
	Agboville
	Dabou
	Adzope
	Bonoua
	Aboisso
	Agnibilekrou
	Lakota
	Affery
	Akoupe
	Hirre Watta
	Tiassale
South West	San Pedro
	Sassandra
West	Man
	Danane
	Duekoue
	Guiglo
Center West	Daloa
	Gagnos
	Oume
	Seguela
	Issia
Center	Bouake
	Yamousoukro
	Dimbokro
	Katiola
	Sinfra
	Bouafle
	Arrah
	Bongouanou
	Toumodi
	Daoukro
	Seizra
	Beoumi
	M'Bahiakro
	M'Batto
East	Bondoukou
North	Korhogo
	Ferkessedougou
	Odienne
	Boundiali

TABLE 3

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT

(During 1985-199)

SETTLEMENTS	1985 POPULATION (000s)	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1990 POPULATION (000s)	GROWTH EMPLOYMENT (%)	RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Millions)
GREATER ABIDJAN								
1 ABIDJAN	2,500	173	843	3,343	1.051	1.060	3,205	554
2 GRAND BASSAM	54	4	20	75	1.048	1.065	3,234	13
3 ANYAMA	48	1	6	53	1.021	1.024	3,541	4
4 BINGERVILLE	24	1	5	28	1.023	1.037	3,509	3
Subtotal	2,625	179	874	3,499				575
SOUTH								
5 DIVO	71	2	11	82	1.020	1.029	3,554	8
6 ABENGOUROU	60	3	15	75	1.026	1.047	3,400	11
7 ABOISSO	54	8	37	91	1.069	1.109	3,020	23
8 [illegible]	46	2	10	56	1.020	1.039	3,551	7
9 ADZOPE	42	2	10	52	1.024	1.043	3,504	7
10 BONGOA	31	2	11	41	1.026	1.061	3,475	8
11 ABOISSO	23	1	5	28	1.022	1.040	3,525	4
12 AGNIBILEKROU	23	3	14	37	1.049	1.103	3,219	10
13 DANANA	22	1	7	29	1.032	1.058	3,405	5
14 AFFERY	20	1	4	24	1.019	1.035	3,559	3
15 ANOUPE	19	1	7	26	1.034	1.061	3,387	5
16 MORE MATTA	18	1	2	20	1.015	1.027	3,615	2
17 TIASSALE	15	1	7	22	1.042	1.074	3,295	5
Subtotal	445	29	139	584				95
SOUTH WEST								
18 SAN PEDRO	100	17	82	182	1.056	1.127	3,047	51
19 SASSANDRA	18	1	4	22	1.024	1.042	3,504	3
Subtotal	118	19	86	203				54
WEST								
20 MAN	99	5	24	123	1.023	1.044	3,509	17
21 DANANE	30	1	6	36	1.020	1.034	3,543	4
22 DUEKOUE	22	1	4	29	1.017	1.034	3,584	3
23 BLOLEO	16	1	4	20	1.022	1.044	3,520	3
Subtotal	169	8	37	207				27
CENTER WEST								
24 DALOA	108	6	31	139	1.032	1.052	3,405	22
25 GAGNOA	78	8	40	117	1.042	1.086	3,294	27
26 DUBE	25	3	13	38	1.049	1.086	3,222	9
27 SEMBELA	22		1	23	1.006	1.011	3,724	1
28 TESSIA	20	1	6	26	1.029	1.051	3,449	4
Subtotal	254	19	90	344				62
CENTER								
29 BOUAKE	326	44	212	549	1.068	1.103	3,026	132
30 KATIOLA	83	4	18	100	1.024	1.039	3,502	13
31 DIMBOKRO	71	11	54	125	1.059	1.121	3,125	35
32 KATIOLA	33	2	10	43	1.021	1.051	3,422	7
33 BONGOU	32	1	6	39	1.020	1.034	3,545	4
34 BOUAFLE	33	3	13	45	1.041	1.069	3,311	9
35 [illegible]	31		1	31	1.006	1.013	3,725	1
36 BANDIANGOU	26	1	5	33	1.014	1.021	3,616	3
37 TOUMODI	24	1	5	29	1.022	1.028	3,517	4
38 DALIKRO	22	1	3	27	1.015	1.029	3,611	2
39 SEIBRA	21	1	5	26	1.020	1.049	3,422	4
40 SEKLMI	20	1	4	23	1.022	1.037	3,526	3
41 M'BAHIAKRO	19	1	3	22	1.021	1.034	3,529	2
42 M'BATTO	19	1	3	21	1.016	1.026	3,599	2
Subtotal	772	70	342	1,114				222
EAST								
43 BONDOUKOU	38	1	6	44	1.022	1.032	3,511	5
Subtotal	38	1	6	44				5
NORTH								
44 KORHOGO	86	6	28	113	1.029	1.057	3,442	19
45 FERKESSEDOUGOU	48	8	40	87	1.069	1.129	3,317	25
46 DIOULAKA	25		1	26	1.004	1.008	3,751	1
47 BOUNDIALI	19	1	5	24	1.025	1.051	3,485	4
Subtotal	177	15	73	250				49
TOTALS	4,597	338	1,649	6,246				1,197

given two points. The scoring of the 46 settlements, as well as their total score and ratings, are shown in Table 4. Settlements have been divided into three groups:

- **Those with the greatest potential for economic development.** There are eight settlements in this group, with scores of 10 or more.
- **Those with medium potential for economic development.** There are ten settlements in this group, with scores of 6 to 9.
- **Those with the lowest economic potential.** The remaining 28 settlements, with scores of 5 and below, fall in this group.

There is a noticeable correlation between the size of the settlement and its rating. The larger settlements are generally in the top group (average 1985 population is 105,000) while the smaller settlements are in the group with the lowest potential (average population is 25,000). Thus, if selection is based primarily on economic considerations, activities will be concentrated on the largest of the interior cities.

IV. MATRIX OF REGIONS AND SETTLEMENTS

When the results of the two evaluations are combined into a matrix (see Figure 1), the settlements with greatest development potential from both a regional and local situation are identified. Over 60 percent of the cities in the top two categories are located in the Center and South regions, the two highest rated regions. The remaining seven cities in these groups are distributed between four regions. The East is the only region without settlements in the top categories.

It is recommended that the settlements with the greatest and medium potential in the Center and South regions be given priority for funding with special activities programmed for two or three cities with the highest rating in the other regions. Excluding Yamousoukro because of its special administrative status, this leaves the following 14 settlements to be evaluated in the next phase of the selection process:

Center Region
- Bouake*
- Dimbokro
- Bouafle*
- Katiola

South Region
- Agboville*
- Grand Bassam
- Agnibilekrou
- Abengourou*
- Adzope*
- Divo*

Other Regions
- San Pedro
- Gagnoa

Daloa
Ferkessedougou*

*On the list of potential sites for the proposed World Bank Secondary Cities project

Half of the suggested cities are also on the list from which the sites from the World Bank project will be selected. None of the cities are included in the HG 004 project.

V. PHASE II: SECONDARY CITY SELECTION

A. Suggested Orientation

This paper presents a ranking of settlements by economic growth potential which should provide a basis for pre-selection of project towns. In our view the following options exist for pre-selection.

- Choice of settlements on the basis of their individual "performance". This would tend to favor "forest" settlements particularly those in the Center and South Regions.

- Choice of some settlements on the basis of performance in their respective regions. This would imply selection of settlements in the West and East Regions even though the individual settlements ranked among the lowest potential in Figure 1. It should be noted that differentiation in project types and funding could reflect the individual performance of the settlements. Poor ranking settlements, for example, might receive small levels of funding.

In any event, as Figure 1 indicates, settlements with the greatest potential are found in all regions with the exception of the East and West regions. Whether the regional distribution is appropriate is a policy consideration which should be taken up by RHUDO and the DCU.

It would now appear that the next step would be to present the findings of the report to the DCU. This could be done either in a letter to the minister broadly describing the methodology and identifying the 14 cities among which final settlements will be selected or by providing a letter and translation of the report. It would probably not be necessary to translate Annex A.

It would also be useful to organize a working session with the DCU, Collectivites Locales, the Ministry of Plan the IBRD secondary city team, and other appropriate parties to obtain first-hand information on the settlements and a better picture of their respective needs. On the basis of these discussions, it may be possible to narrow the number of settlements to eight or so. This step in the evaluation process is the identification of general needs and the GOIC and local resources which are or will be made available to address them. To assist in this process it is recommended that letters and questionnaires be sent to the various municipalities. The letter should request the previous and projected budget (revenues and expenditures) and identification of areas for priority assistance. Guidelines for the questionnaire are provided in Table 5.

TABLE 4

SETTLEMENT EVALUATION

SETTLEMENTS	Employment Growth (Average Annual Rate %)	New Jobs 1985-1990 (000s)	Commune Yes/No	Score
Greatest Potential (10+)				
Bouake	6.8 (6)	44 (8)	Y(2)	16
San Pedro	6.6 (6)	17 (7)	Y(2)	15
Ferkessedougou	6.9 (6)	8 (6)	Y(2)	14
Dimbokro	5.8 (5)	11 (7)	Y(2)	14
Gagnoa	4.2 (4)	8 (6)	Y(2)	12
Agboville	6.9 (6)	3 (3)	Y(2)	11
Grand Bassam	4.8 (4)	4 (4)	Y(2)	10
Daloa	3.2 (3)	6 (5)	Y(2)	10
Medium Potential (6-9)				
Bouafle	4.1 (4)	3 (3)	Y(2)	9
Korhogo	2.3 (2)	5 (5)	Y(2)	9
Man	2.9 (2)	6 (5)	Y(2)	9
Yamousoukro	2.4 (2)	4 (4)	Y(2)	8
Agnibilekrou	4.9 (4)	3 (3)	N(0)	7
Oume	4.9 (4)	3 (3)	N(0)	7
Katiola	3.1 (3)	2 (2)	Y(2)	7
Abengourou	2.6 (2)	3 (3)	Y(2)	7
Adzope	2.4 (2)	2 (2)	Y(2)	6
Divo	2.0 (2)	2 (2)	Y(2)	6
Lowest Potential (5 & below)				
Tiassale	4.2 (4)	1 (1)	N(0)	5
Boundiali	2.5 (2)	1 (1)	Y(2)	5
Sassandra	2.4 (2)	1 (1)	Y(2)	5
Bondoukou	2.3 (2)	1 (1)	Y(2)	5
Toumodi	2.3 (2)	1 (1)	Y(2)	5
Aboisso	2.2 (2)	1 (1)	Y(2)	5
Guiglo	2.2 (2)	1 (1)	Y(2)	5
Akoupe	3.4 (3)	1 (1)	N(0)	4
Lakota	3.2 (3)	1 (1)	N(0)	4
Seizra	3.0 (3)	1 (1)	N(0)	4
Bonoua	2.6 (2)	2 (2)	N(0)	4
Dabou	2.0 (2)	2 (2)	N(0)	4
Issia	2.8 (2)	1 (1)	N(0)	3
Bingerville	2.3 (2)	1 (1)	N(0)	3
Beoumi	2.2 (2)	1 (1)	N(0)	3
Anyama	2.1 (2)	1 (1)	N(0)	3
M'Bahiakro	2.1 (2)	1 (1)	N(0)	3
Danane	2.0 (2)	1 (1)	N(0)	3
Sinfra	2.0 (2)	1 (1)	N(0)	3
Affery	1.9 (1)	1 (1)	N(0)	2
Duekoue	1.7 (1)	1 (1)	N(0)	2
M'Batto	1.6 (1)	1 (1)	N(0)	2
Daoukro	1.5 (1)	1 (1)	N(0)	2
Hirre Watta	1.5 (1)	1 (1)	N(0)	2
Bongouanou	1.4 (1)	1 (1)	N(0)	2
Seguela	0.6 (0)	- (0)	Y(2)	2
Odienne	0.4 (0)	- (0)	Y(2)	2
Arrah	0.6 (0)	- (0)	N(0)	0

FIGURE 1

MATRIX OF REGIONS AND SETTLEMENTS

	Center	South	South W	Center W	West	North	East
Greatest Potential	Bouake Dimbokro	Agboville Gr. Bassam	San Pedro	Gagnoa Daloa		Ferke	
Medium Potential	Bouafle Yamousoukro Katiola	Agnibilekrou Abengourou Adzope Divo		Oume	Man	Korhogo	
Lowest Potential	Toumodi Seizra Beoumi M'Bahiakro Sinfra M'Batto Daoukro Bongouanou Arrah	Tiassale Aboisso Akoupe Lakota Bonoua Dabou Bingerville Anyama Affery Hirre Watta	Sassandra	Issia Seguela	Guiglo Danane Duekoue	Boundiali Odienne	Bondoukou

The final step in the evaluation process should be field visits to each of the remaining settlements. The purpose of these visits may be to further narrow the number of settlements which are eligible for projects but also to provide the basis for project identification. The field visits should focus on discussions with local officials including the Prefectures and Mairies. In addition, a windshield survey should be conducted along the lines of Table 6. It is recommended that local consultants be attached to the field visit teams. An initial attempt should be made to quantify and cost potential projects in each of the settlements based on experience of HG-004. The field trip would thus form the basis for a PID document and provide elements for a PP. Finally, a sample data form has been provided for each of the selected settlements in Table 7. It would be extremely useful to structure settlement data for AID and IBRD projects to help orient urban policy and investment planning.

B. Probable Project Types

On the basis of HG experience in the Ivory Coast and elsewhere it is assumed that future secondary city projects in the Ivory Coast will be broadly conformed to a number of sub-types which should orient research through questionnaires and field studies:

1. **General Urban:** Major and secondary roads; sanitary and storm sewers; water supply and power systems; markets; transportation depots; other facilities; garbage collection facilities.

2. **Community Projects** (upgrading: Secondary and tertiary roads and pedestrian paths; secondary and tertiary water (including fire hydrants) and power (including street lighting); secondary and tertiary sanitary (or alternative systems) and storm sewers; local garbage collection systems; community facilities (local market, primary school, health clinics, community and youth centers, etc.); housing improvement loans; business improvement loans.

3. **Urban Extension Projects:** Land subdivision (residential, commercial and small industrial); provision of basic infrastructure (water, electricity/streetlighting, drainage, roads and footpaths, garbage collection facilities, sanitation); community facilities (primary school, health centers, community and youth centers, local market) provision of plot acquisition loans; provision of material loans.

C. Settlement Questionnaire Prototype

Introduction: The Direction Centrale de l'Urbanisme and USAID (Office of Housing and Urban Programs) are conducting a survey of municipalities to determine their requirements for development assistance. Areas of concern include: Urban wide service roads and drainage systems; low-income neighborhoods in need of infrastructure improvement and community facilities; and urban extension or subdivisions for low-income groups.

In addition to the following questionnaire it is requested that you provide the DCU with two full copies of your most recent budgets including revenues and expenditures. Please ensure that each is itemized and indicate which projects are currently being funded or contemplated. Please note that provision of the requested data will be a factor in determining the eligibility of settlements for possible assistance.

TABLE 5

URBAN IMPROVEMENT QUESTIONNAIRE

SETTLEMENT _____ NO. _____

Region _____

Prefecture _____ Prefet _____

Sins Prefet _____ Major _____

I. PRIORITIES FOR URBAN IMPROVEMENT

1. Please list in order of priority (as shown in the example provided) the types of infrastructure and facilities requiring improvement.

☐ **ROADS**
- primary
- secondary
- tertiary

☐ **WATER SUPPLY**
- house connections
- public standpipes

☐ **ELECTRICITY**
- house connections
- street lighting

☐ **MARKET**
- city
- neighborhood

☐ **PRIMARY SCHOOL**

☐ **TRANSPORTATION DEPOT**

☐ **HEALTH**
- urban
- neighborhood center

☐ **SUBDIVISION**
- low income housing
- small scale industry

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

☐ DRAINAGE

- urban roads
- basin

☐ SANITATION

- water borne
- individual systems

☐ GARBAGE COLLECTION

☐ OTHER (specify)

_____

_____

_____

_____

_____

_____

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

II. MUNICIPAL BUDGETS (Revenues & Expenditures):

1. Regarding your past two budgets, please specify your principal sources of revenue and the amounts collected.

19 ___		19 ___	
Item (tax)	FCFA	Item (tax)	FCFA
1.		1.	
2.		2.	
3.		3.	
4.		4.	

2. For the past two budgets which line items received the largest expenditures?

19 ___		19 ___	
Item (tax)	FCFA	Item (tax)	FCFA
1.		1.	
2.		2.	
3.		3.	
4.		4.	

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

3. What specific urban programs have you identified as priorities in your budgets?

1. _____

2. _____

3. _____

4. _____

4. Have cadastral surveys for property taxes been completed in your locality?

_____

5. What percentage of properties are registered on the tax rolls?

_____

6. How many properties were added to the tax rolls per year over the paast five years? _____

7. Does the municipality assist in the establishment of the tax rolls?

_____

8. What could be done to increase municipal revenues? _____

_____

III. NEIGHBORHOODS REQUIRING IMPROVEMENT

1. Which specific low income neighborhoods in your locality are in particular need of improvement? (Please show locations on a map if available.)

A. Community _____

Representative Title _____

Population _____ Area _____ (hectares)

Priority Needs:

1. _____

2. _____

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

3. _____

4. _____

B. Community _____

Representative Title _____

Population _____ Area _____ (hectares)

Priority Needs:

1. _____

2. _____

3. _____

4. _____

C. Community _____

Representative Title _____

Population _____ Area _____ (hectares)

Priority Needs:

1. _____

2. _____

3. _____

4. _____

IV. LAND DEVELOPMENT (Subdivision)

1. How many residential lots have been developed in your locality in the last 5 years? _____

2. Who was the responsible party in these programs? _____

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

3. What percentage of these have been sold? _____

4. How many are occupied? _____

5. Are the owners permanent residents of the community? _____

6. What are the lot sizes? _____

7. How much per m^2 was charged for the plots? _____

_____

8. What do you estimate the current demand to be in your community each year for:

residential lots? _____

commercial lots ? _____

small scale industry lots? _____

9. Do any public land reserves exist for residential development in your locality?

_____ How much? _____(hectares)

10. How is or could land be acquired for residential land development schemes:

negotiations with chiefs coutumiers? _____

expropriation? _____

11. How much time is required to acquire land? _____

12. What is the cost of land per m^2? _____

13. If available, how many land titles or occupation permits were granted per year over the past five years? _____

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

V. HOUSING

1. How many public housing units have been built in your locality in the last five years? _____

2. Who were the sponsors? _____

3. Have any private groups sponsored any schemes? Specify _____

_____

4. How many building permits were authorized per year for the past five years _____

_____

5. How many violations were recorded? _____

_____

6. Are there any commercial banks in your community? _____

Which banks? _____

7. Do these banks offer:

home improvement loans? _____

housing instruction loans? _____

8. Can low income households (i.e., incomes FCFA 70,000/month) readily obtain loans for housing? _____

9. Do any means exist for loan guarantees for low income households?

_____

10. What are the key constraints to housing develpment in your community?

_____

TABLE 5 (continued)

URBAN IMPROVEMENT QUESTIONNAIRE

11. Does squatting represent a major problem in your locality? _____

_____

12. What measures are you taking to deal with this problem? _____

_____

VI. NOTES

D. Visual Survey

The Visual Survey Form (Table 6) should serve to orient general impressions about conditions within the settlement, but ranking may prove difficult even if a single surveyor is charged with the task.

E. Settlement Data Forms

Data Sheets: It is recommended that data sheets be established for each settlement which is selected as a potential HG beneficiary. A model for the data sheet is found in Table 7.

F. Postscript

The material provided in the Appendix regarding the results of the urban investment methodology has been relatively unexploited. The data is stored on computer files which could be studied and modified if the GOIC were to indicate an interest in systematizing its urban investment. In addition, alternative investment strategies could be studied rather easily now that the data has been stored.

TABLE 6

VISUAL SURVEY FORM

NO. SETTLEMENT

	Low 1	2	3	4	5	6	7	8	9	High 10
General Indicators										
Economic Vitality										
Traffic										
Construction										
Conditions										
Primary, Secondary Roads										
Primary, secondary drainage										
Market										
Transp. Depot										
City Center										
Low Income Areas*										
Housing										
Roads										
Drainage										
Water										
Fire Protection										
Electricity										
Streetlighting										
Sanitation										
Garbage Collection										
School										
Health Center										
Open Space										
Community Centers										
Squatting										
New Areas*										
Occupation										
General Maintenance										
Levels Service										
Low Income Units										

* complete additional forms as needed for neighborhoods

TABLE 7

SETTLEMENT DATA FORM

SETTLEMENT _____ **REGION** _____

Population 19_____ 19_____

Annual Growth Rate (19__-19__)_____

Employment and Growth Trends_____

Distribution of Employment_____

ADMINISTRATIVE DATA: (i.e. over past five years)

Building Permits Issued per Year_____

Lot Registrations and Land Titles Granted per Year_____

Properties Added to Tax Rolls per Year _____

_____

Property Tax Collected per Year_____

Other Principal Revenues per Year_____

Principal Expenditures per Year_____

SHELTER: (by housing type if possible)

Housing Demand per Year by Income Group _____

No. Dwelling Units Constructed per Year

Public_____ Private_____ Formal_____ Informal_____

Housing Size (m^2) per Lot and per Household _____

Density (persons/hectare) _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

Occupancy (persons per room; per unit; per plot) _____

Average Lot Size (low income) _____

Land Development Costs by Standard _____

Housing Construction Costs Total and per m^2 _____

Pit Latrine Costs _____

Number Formal Contractors by Type _____

Number Informal Contractors by Type _____

Bank Branches Offering Housing Finance _____

Housing Loans and Amounts by Institution and Income Group _____

Loan Terms _____

Informal Credit Mechanisms and Terms _____

HOUSEHOLD SOCIO-ECONOMIC CHARACTERISTICS:

Median Monthly Household Income _____

Percent Dwelling Unit and Land Owners and Renters _____

Expenditures

Housing_____ Utilities_____ Related Taxes_____

Savings Total and Monthly _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

WATER SUPPLY

Responsible Agency _____

Local Plant Production _____

Production Capacity _____

Treatment Capacity _____

Percent System Losses _____

Metered Dwelling Unit Connections _____

Population Served _____

Percent Consumption (residential, commercial, industrial) _____

Service Standard (per liters per capita per day) _____

User Charges _____

Capital Costs (per liter per day) _____

Operating and Maintenance Costs (per liter per capita per day) _____

_____

Sources of Finance _____

POWER

Responsible Agency _____

Distribution to Settlement _____

Population Served _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

Number of Metered Dwelling Unit Connection _____

Population/households per Meter _____

Consumption (residential; commercial, industrial) _____

Service Standard (kwh per capita per month) _____

Capital Cost (kwh per capita per month) _____

User Charges _____

CIRCULATION

Responsible Agencies _____

Standards (right of ways, road widths, and cost) _____

Sources of Finance for New Construction and Maintenance _____

SANITATION

Responsible Agency _____

Type and Population Usage _____

If Water Borne, Treatment and Production Capacity; System Losses _____

_____

Service Standard _____

Capital Cost per Unit _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

Operation and Maintenance Cost per Unit _____

User Charges _____

TRANSPORT

Responsible Agencies _____

Types and Units of Transport _____

Capital Costs per Unit _____

Operation and Maintenance Cost per Unit _____

User Charges _____

HEALTH

Responsible Agencies _____

Types, Units, Locations, Capacity and Staffing _____

_____

Capital Costs per Unit _____

Operation and Maintenance Costs per Unit _____

Sources of Finance (public and private) _____

_____

User Charges _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

EDUCATION

Responsible Agencies _____

Types, Units, Staffing and Capacity _____

Standards (students per classroom) _____

Population Served by Type _____

Capital Cost per Unit _____

Operating and Maintenance Cost per Unit _____

Sources of Finance

New Construction _____

Operation and Maintenance _____

User Charges _____

PUBLIC FACILITIES (market and transportation depots)

Responsible Agencies _____

Areas _____

Service Levels (no. units/stalls) _____

Population Served _____

Projected Demand _____

TABLE 7 (continued)

SETTLEMENT DATA FORM

Capital Cost/m^2 _____

Operating and Maintenance Cost _____

User Charges _____

PHYSICAL PLANNING

Status of Physical Plan _____

Major Land Use Areas and Percent of Total _____

Residential _____ Commercial _____

Services _____ Industrial _____

Institutional _____ Open Space _____

Circulation _____ Topography (physical constraints) _____

_____

Private Land Values _____

ANNEX A

IVORY COAST URBAN DEVELOPMENT ASSESSMENT

I. INTRODUCTION

The PADCO National Urban Policy Study (NUPS) Methodology was initially developed and used in PADCO's work in Egypt. It was designed to provide a solid analytical basis for choosing effective urban development strategies in Less Developed Countries (LDCs). Subsequently, the methodology has been fully reviewed and adapted for use on microcomputers. This has permitted use of the metnodology for analyzing alternative urban investment strategies for USAID in Senegal, Burundi and Nepal.

The Methodology has five major components or modules. The following is a brief description of each of the two modules used for the Ivory Coast assessment.

A. The Aggregate Demographic and Economic Module (ADEM)

The ADEM provides estimates of total urban population and its change over a given time period that is, an estimate of the population likely to need urban jobs, shelter and services. It also provides estimates of the total investment resource pool (i.e., the total investment generated by the economy which will be available to finance different sectoral programs) over the planning period to achieve a given rate of economic growth. This module provides sectoral detail on the distribution of total investment among economic sectors.

The ADEM total urban population estimate is used as a control total in the Settlement Allocation/Costing Module (SACM). The sectoral costs per job are also used as inputs to the Investment for Employment Subcomponent of this Module.

B. The Settlement Allocation and Costing Module (SACM)

The SACM builds on the national population and aggregate economic projections developed in the ADEM module. Specifically, it allocates investment in employment and shelter and urban infrastructure at the settlement level. As such, it consists of two Subcomponents:

- The Investment for Employment Subcomponent, and
- The Investment for Shelter and Urban Infrastructure Subcomponent.

The two and their interrelationships are discussed below.

1. Investment for Employment

The Investment for Employment Subcomponent of the SACM is implemented once total urban population and sectoral costs per job are calculated by the ADEM module. Here, investment is allocated among the urban settlements to generate enough jobs to support the total urban populations. This allocation procedure is one of the most innovative elements of the NUPS methodology.

The SACM provides the basis for establishing population targets by settlement in each of the settlement alternatives to be tested. Specifically, a functional relationship is established between the employment growth rate of each settlement and investment costs per job. Settlement population targets are determined by the rate of growth of employment.

A variety of alternative distributions of population among urban areas can be generated by changing the manner in which investment for job creation is allocated. A given allocation determines simultaneously the expected cost per job created for each settlement and the rate of employment growth in the settlement. Population growth in each settlement is then derived from employment growth.

This Subcomponent of the SACM produces three analytic outputs:

- Population targets by settlement, which are used to estimate required shelter and infrastructure levels and costs in the Investment for Shelter and Infrastructure Subcomponent;
- Total employment and population; and
- Total direct investment in employment generation.

The settlement population targets provide the direct link in the methodology between the Investment for Employment and Investment for Shelter and Infrastructure Subcomponents of the SACM.

2. The Shelter/Infrastructure Component

The "Investment for Shelter/Infrastructure" component of the "Settlement Allocation/Costing Module" takes the settlement population distributions derived from the "Investment for Employment" Subcomponent. It then calculates the total and per capita costs of the shelter and urban infrastructure needed to support the demand for these services created by the population targets.

This step in the methodology requires a substantial amount of empirical information about the stock, condition and capacity of shelter and infrastructure in the major settlements. The cost of future investment plans will hinge on the degree to which existing stock can be used or upgraded to handle projected population growth rather than adding new capacity.

The implementation of the "Investment for Shelter/Infrastructure" component provides information on the total and per capita costs of each alternative and additional information on the sensitivity of these costs to future standards, prices and demand. The aggregation of the costs from it and the "Investment for Employment" Subcomponents provides a means of assessing the financial feasibility of alternatives when compared with the estimated total resource pool (derived in the ADEM Macro-Module).

II. DATA BASE

The NUPS Methodology uses three sets of data: figures on the national and urban population (including population and employment at the settlement level), data on the national economy, and information on urban infrastructure and service standards.

A. Demographic Data

Demographic data is needed on both the local and national scale. The main sources of information on settlements were reports on interior cities prepared by the GOIC for the 1981-1985 Plan and for a World Bank financed project. Data for each settlement includes the 1985 population, 1985 total employment, 1985 employment in the industrial sector, and gross density (Table A1). When data was not available for a settlement, regional averages were used to complete the table.

National population figures are based on World Bank projections (Table A2).

B. Macro-Economic Data

Principal sources of economic data were IMF and World Bank reports. Since much of the data is based on projections it was decided to look at two different alternatives for economic development. Alternate A is the more optimistic scenario gradually increasing investment to the year 2000. Alternate B is more conservative estimating only limited expansion of investments (Tables A3 and A4).

The first column shows the estimated GDP, investment budget and employment by sector for 1984. The ICORs (incremental capital output ratio) and investment labor ratios are indications of economic performance and show the relationship between the change in GDP or employment over a period of time and the investment over the same period. The investment shares indicate the division of the investment budget between the different economic sectors. Alternate B is more conservative with a larger percentage of funds going to the primary sector.

C. Infrastructure Cost

Cost data was obtained from USAID and World Bank studies and project documents as well as cost studies by the GOIC. Two standards packages each with three options were established (Tables A5 and A6). Option 1, which has the highest level of services, is used for the greater Abidjan area while Option 3, which has the lowest level of service, is used for smaller interior towns. The packages also include a regional construction cost index plus standards for projected water consumption and gross urban density. Package A with lower standards was used with Alternate A and Package B with Alternate B.

Investment figures used in the macro-economic projections are for public investment only. Therefore, housing costs are not included in the standards packages since it is considered that most investment in housing comes from private sources.

TABLE A1

SETTLEMENT DATA (IN THOUSANDS)

No.	Name of SETTLEMENTS	1985 POPULA-	1985 EMPLOY-	1985 MMC	1985 DENSITY	Existing WATER STANDARD L/C/D
1	ABIDJAN	2,499.80	617.50	179.10	110.00	91.0
2	GRAND BASSAM	54.40	15.80	4.40	94.00	33.5
3	ANYAMA	47.50	11.30	1.70	106.00	33.5
4	DINGERVILLE	23.70	7.90	1.30	71.00	33.5
5	DIVO	70.90	22.10	3.20	117.00	32.8
6	ABENGOUROU	59.80	23.10	4.10	46.00	22.9
7	AGBOVILLE	54.20	19.20	6.90	80.00	33.5
8	DABOU	46.10	19.20	2.80	82.00	33.4
9	ADZOPE	41.80	16.20	2.70	76.00	22.9
10	BONOUA	30.90	15.60	2.80	74.00	33.5
11	ABOISSO	23.20	8.90	1.40	68.00	33.5
12	AGNIBILEKROU	22.90	10.90	3.10	54.00	22.9
13	LAKOTA	22.20	8.60	1.80	76.00	32.8
14	AFFERY	19.80	7.70	1.10	108.00	22.9
15	AKOUPE	19.00	7.40	1.60	76.00	22.9
16	HIRRE WATTA	17.60	6.80	.80	76.00	32.8
17	TIASSALE	16.30	6.30	1.60	53.00	32.8
18	SAN PEDRO	100.00	44.60	15.60	96.00	32.8
19	SASSANDRA	17.60	6.60	1.10	87.00	32.8
20	MAN	99.30	39.40	6.50	73.00	18.5
21	DANANE	30.40	10.70	1.60	86.00	18.5
22	DUEKOUE	23.30	9.90	1.30	89.00	18.5
23	GUIGLO	16.30	6.90	1.10	92.00	18.5
24	DALOA	107.80	36.90	7.70	150.00	20.9
25	GAGNOA	77.90	35.40	9.00	70.00	32.8
26	OUME	25.40	9.90	2.80	99.00	32.8
27	SEGUELA	22.10	8.80	.60	51.00	20.9
28	ISSIA	20.40	7.90	1.50	72.00	20.9
29	BOUAKE	336.30	111.70	39.90	68.00	20.6
30	YAMOUSOUKRO	92.80	28.60	4.80	76.00	41.1
31	DIMBOKRO	70.60	34.00	10.90	91.00	41.1
32	FATIOLA	33.40	11.90	2.40	45.00	20.6
33	SINFRA	33.00	11.40	1.70	76.00	41.1
34	BOUAFLE	32.60	11.70	2.90	61.00	20.9
35	DABAH	29.70	10.30	.70	176.00	20.6
36	BONGOUANOU	28.30	12.80	1.50	85.00	20.6
37	TOUMODI	24.40	8.70	1.40	60.00	41.1
38	DAOUKRO	23.30	9.20	1.10	82.00	20.6
39	SEIZKA	20.50	7.10	1.40	75.00	20.9
40	BEOUMI	19.50	7.00	1.10	58.00	20.6
41	M'BAHIAKRO	19.00	6.60	1.00	76.00	20.6
42	M'BATTO	18.50	6.40	.80	76.00	20.6
43	BONDOUKOU	37.70	11.00	1.80	61.00	22.9
44	KORHOGO	85.60	36.80	7.10	42.00	33.9
45	TENGRESSEDOUGOU	47.70	20.50	7.40	69.00	33.9
46	OUANINE	25.00	10.80	.60	37.00	33.9
47	SOUNGBALI	18.50	8.00	1.30	49.00	33.9

TABLE A2

NATIONAL SETTLEMENT DATA

TYPE	1985	1990	1995	2000
NATIONAL POPULATION	10,360	13,075	16,500	19,400
URBAN POPULATION	4,500	6,150	8,450	10,500
IN LARGEST SETTLEMENTS	4,500	6,150	8,450	10,500
LABOR FORCE/POPULATION	.35	.35	.35	.35

TABLE A3

ALTERNATE A

ECONOMIC PARAMENTERS

PARAMETERS & GDP	GDP BILLIONS	1985-1989	1990-1994	1995-2000
		----------ICORs--------		
1 PRIMARY	340	5.390	5.390	5.390
2 SECONDARY	307	3.110	3.110	3.110
3	0	0.000	0.000	0.000
4	0	0.000	0.000	0.000
5 TERTIARY	679	8.070	8.070	8.070
INVESTMENT BLOCK	BILLIONS	----INVESTMENT SHARES----		
6 PRIMARY	31	.164	.164	.164
7 SECONDARY	46	.243	.243	.243
8	0	0.000	0.000	0.000
9	0	0.000	0.000	0.000
10 TERTIARY	112	.593	.593	.593
EMPLOYMENT BLOCK	(000s)	----INVESTMENT LABOR RATIOS----		
11 PRIMARY	3,245	1.346	1.346	1.346
12 SECONDARY	164	.194	.194	.194
13	0	0.000	0.000	0.000
14	0	0.000	0.000	0.000
15 TERTIARY	698	.338	.338	.338

TABLE A4

ALTERNATE B

ECONOMIC PARAMENTERS

PARAMETERS & GDP	GDP BILLIONS	1985-1989	1990-1994	1995-2000
		----ICORs----		
1 PRIMARY	328	5.390	5.390	5.390
2 SECONDARY	290	3.110	3.110	3.110
3	0	0.000	0.000	0.000
4	0	0.000	0.000	0.000
5 TERTIARY	641	8.070	8.070	8.070
INVESTMENT BLOCK	BILLIONS	----INVESTMENT SHARES----		
6 PRIMARY	30	.307	.307	.307
7 SECONDARY	10	.105	.105	.105
8	0	0.000	0.000	0.000
9	0	0.000	0.000	0.000
10 TERTIARY	58	.588	.588	.588
EMPLOYMENT BLOCK	(000s)	----INVESTMENT LABOR RATIOS----		
11 PRIMARY	3,245	1.346	1.346	1.346
12 SECONDARY	164	.194	.194	.194
13	0	0.000	0.000	0.000
14	0	0.000	0.000	0.000
15 TERTIARY	698	.338	.338	.338

TABLE A5

PACKAGE A - LOWER STANDARD

STANDARDS PACKAGES PER CAPITA COSTS

NUMBER	WATER	SANIT-ATION	TRANS-PORT-	CIRCU-LATION	OTHERS	HOUS-ING	HEALTH	EDUCA-TION	OTHERS
1	.03	17.10	2.52	11.13	3.54	0.00	3.92	15.33	11.38
2	.03	0.00	0.00	8.17	1.77	0.00	3.92	15.33	11.38
3	.04	0.00	0.00	8.17	1.77	0.00	3.92	15.33	3.60

ALLOCATION OF STANDARDS PACKAGES AND CONSTRUCTION INDEX AND DENSITY STANDARDS

No. SETTLEMENT	STANDARD PACKAGE NO.	REGIONAL CONSTR. INDEX	WATER STANDARD L/C/D	GROSS DENSITY PERS/HA
1 ABIDJAN	1.00	1.00	100.00	200
2 GRAND BASSAM	1.00	1.02	80.00	150
3 ANYAMA	1.00	1.02	80.00	150
4 BINGERVILLE	1.00	1.02	80.00	150
5 DIVO	2.00	1.05	60.00	150
6 ABENGOUROU	2.00	1.05	60.00	150
7 AGBOVILLE	2.00	1.02	60.00	150
8 DABOU	2.00	1.02	60.00	150
9 ADZOPE	3.00	1.02	35.00	125
10 BONOUA	2.00	1.02	60.00	150
11 ABOISSO	3.00	1.02	35.00	125
12 AGNIBILEKROU	3.00	1.08	35.00	125
13 LAKOTA	3.00	1.05	35.00	125
14 AFFERY	3.00	1.05	35.00	125
15 AKOUPE	3.00	1.05	35.00	125
16 HIRRE WATTA	3.00	.25	35.00	125
17 TIASSALE	3.00	1.05	35.00	125
18 SAN PEDRO	2.00	1.12	60.00	150
19 SASSANDRA	3.00	1.08	35.00	100
20 MAN	2.00	1.18	60.00	150
21 DANANE	3.00	1.18	35.00	100
22 DUEKOUE	3.00	1.12	35.00	100
23 GUIGLO	3.00	1.12	35.00	100
24 DALOA	2.00	1.12	60.00	150
25 GAGNOA	2.00	1.08	60.00	150
26 OUME	3.00	1.05	35.00	100
27 SEGUELA	3.00	1.12	35.00	100
28 ISSIA	3.00	1.12	35.00	100
29 BOUAKE	2.00	1.08	60.00	150
30 YAMOUSOUKRO	2.00	1.08	60.00	150
31 DIMBOKRO	3.00	1.05	35.00	100
32 KATIOLA	3.00	1.12	35.00	100
33 SINFRA	3.00	1.08	35.00	100
34 BOUAFLE	3.00	1.05	35.00	100
35 ARRAH	3.00	1.05	35.00	150
36 BONGOUANOU	3.00	1.05	35.00	100
37 TOUMODI	3.00	1.05	35.00	100
38 DAOUKRO	3.00	1.05	35.00	100
39 SEIZRA	3.00	1.08	35.00	100
40 BEOUMI	3.00	1.12	35.00	100
41 M'BAHIAKRO	3.00	1.08	35.00	100
42 M'BATTO	3.00	1.05	35.00	100
43 BONDOUKOU	3.00	1.12	35.00	100
44 KORHOGO	2.00	1.18	60.00	150
45 FERKESSEDOUGOU	3.00	1.18	35.00	100
46 ODIENNE	3.00	1.23	35.00	100
47 BOUNDIALI	3.00	1.23	35.00	100

TABLE A6

PACKAGE B - HIGHER STANDARD

STANDARDS PACKAGES PER CAPITA COSTS

NUMBER	WATER	SANIT-ATION	TRANS-PORT-	CIRCU-LATION	OTHERS	HOUS-ING	HEALTH	EDUCA-TION	OTHERS
1	.03	17.10	2.52	14.08	3.54	0.00	3.92	22.88	11.38
2	.03	8.50	1.26	11.13	3.54	0.00	3.92	22.88	11.38
3	.04	0.00	0.00	8.17	1.77	0.00	3.92	22.88	3.60

ALLOCATION OF STANDARDS PACKAGES AND CONSTRUCTION INDEX AND DENSITY STANDARDS

No. SETTLEMENT	STANDARD PACKAGE NO.	REGIONAL CONSTR. INDEX	WATER STANDARD L/C/D	GROSS DENSITY PERS/HA
1 ABIDJAN	1.00	1.00	120.00	200
2 GRAND BASSAM	1.00	1.02	100.00	150
3 ANYAMA	1.00	1.02	100.00	150
4 BINGERVILLE	1.00	1.02	100.00	150
5 DIVO	2.00	1.05	80.00	150
6 ABENGOUROU	2.00	1.05	80.00	150
7 AGBOVILLE	2.00	1.02	80.00	150
8 DABOU	2.00	1.02	80.00	150
9 ADZOPE	3.00	1.02	45.00	125
10 BONOUA	2.00	1.02	80.00	150
11 ABOISSO	3.00	1.02	45.00	125
12 AGNIBILEKROU	3.00	1.08	45.00	125
13 LAKOTA	3.00	1.05	45.00	125
14 AFFERY	3.00	1.05	45.00	125
15 AKOUPE	3.00	1.05	45.00	125
16 HIRRE WATTA	3.00	1.05	45.00	125
17 TIASSALE	3.00	1.05	45.00	125
18 SAN PEDRO	2.00	1.12	80.00	150
19 SASSANDRA	3.00	1.08	45.00	100
20 MAN	2.00	1.18	80.00	150
21 DANANE	3.00	1.18	45.00	100
22 DUEKOUE	3.00	1.12	45.00	100
23 GUIGLO	3.00	1.12	45.00	100
24 DALOA	2.00	1.12	80.00	150
25 GAGNOA	2.00	1.08	80.00	150
26 OUME	3.00	1.05	45.00	100
27 SEGUELA	3.00	1.12	45.00	100
28 ISSIA	3.00	1.12	45.00	100
29 BOUAKE	2.00	1.08	80.00	150
30 YAMOUSOUKRO	2.00	1.08	80.00	150
31 DIMBOKRO	3.00	1.05	45.00	100
32 KATIOLA	3.00	1.12	45.00	100
33 SINFRA	3.00	1.08	45.00	100
34 BOUAFLE	3.00	1.05	45.00	100
35 ARRAH	3.00	1.05	45.00	150
36 BONGOUANOU	3.00	1.05	45.00	100
37 TOUMODI	3.00	1.05	45.00	100
38 DAOUKRO	3.00	1.05	45.00	100
39 SEIZRA	3.00	1.08	45.00	100
40 BEOUMI	3.00	1.12	45.00	100
41 M'BAHIAKRO	3.00	1.08	45.00	100
42 M'BATTO	3.00	1.05	45.00	100
43 BONDOUKOU	3.00	1.12	45.00	100
44 KORHOGO	2.00	1.18	80.00	150
45 FERKESSEDOUGOU	3.00	1.18	45.00	100
46 ODIENNE	3.00	1.23	45.00	100
47 BOUNDIALI	3.00	1.23	45.00	100

III. OUTPUTS

A. Economic Projections

Economic projections show the growth of the GDP, investment and the labor force for each sector to the year 2000 (Tables A7 and A8). The growth rates for Alternate B are lower for all areas because of the more conservative assumptions. Cumulative GDP and investment are given for five-year periods.

The assessment of urban employment growth compares the rates of increase in the labor force to the rate of increase in employment created by economic growth. It can be noted that, for Alternate A, employment generation is occuring at a slightly faster rate (6.19 percent) than the growth of the labor force (5.81 percent), thus producing an improved employment situation over time. Employment generation under the assumptions of Alternate B will happen at a slower rate (4.62 percent) than the rate of population increase (5.81 percent), thus resulting in ever increasing unemployment.

The deficits in urban employment shown in Tables A7 and A8 could be the result of a number of factors including:

- The model defines urban employment as those working in the secondary and tertiary sectors. There may be a substantial number of urban residents, particularly in smaller settlements, who are employed in agriculture.
- The unemployment in urban areas of the Ivory coast is high at the present time.
- The original employment figures, or annual growth rates, on which our estimates were based are low.

B. Settlement Population Projections

Based on economic projections and demographic and employment data, the NUPS Methodology calculates a "least cost" solution for the distribution of employment among the urban settlements. The least cost procedure allocates the greatest number of jobs to the cities with the lowest marginal costs of job creation. In other words, this procedure allocates urban growth to the cities where it can occur in the most economically efficient manner, as determined by the tradeoff between the lower costs resulting from agglomeration economies and the higher costs which result from rapid increases in employment and population.

Alternate A1 was set up to evaluate the effects of a decentralization policy that would emphasize growth in secondary cities while limiting development in the primate city. All conditions remained the same as Alternate A, except that the population of Abidjan was limited to approximately 4.5 million by the year 2000. This is almost a 20 percent reduction from the projected population of 5.6 million in Alternate A. This reduces the percentage of new jobs located in Abidjan to 33 percent of the total, with the excess jobs over Alternate A being fairly evenly

TABLE A7

ALTERNATE A

ECONOMIC PROJECTIONS, 1985 TO 2000

SECTORS	1985	1990	1995	2000	RATE
GDP PROJECTIONS IN CFA BILLIONS					
1 PRIMARY	355	395	447	498	2.14
2 SECONDARY	326	430	551	694	4.03
5 TERTIARY	696	793	903	1,042	2.55
TOTALS	1,377	1,618	1,901	2,234	3.07
PROJECTED SHARES OF SECTORAL INVESTMENT IN BILLIONS					
7 PRIMARY	41	48	62	81	4.37
8 SECONDARY	60	71	92	119	4.37
11 TERTIARY	147	173	225	291	4.37
TOTALS	248	291	380	491	4.37
SECTORAL EMPLOYMENT IN THOUSANDS					
13 PRIMARY	3,300	3,602	3,995	4,505	1.96
14 SECONDARY	176	240	324	433	5.80
17 TERTIARY	748	1,022	1,379	1,842	5.80
TOTALS	4,223	4,863	5,699	6,779	3.00
GDP/CAPITA CFA	133	124	115	115	-.89

INVESTMENT RATE 1986-1990= .180 ,1991-1995= .200 and 1996-2000= .220

CUMMULATIVE GDP, 1986 TO 2000

SECTORS	1986-1990	1991-1995	1996-2000
1 PRIMARY	1.893	2.115	2.376
2 SECONDARY	1.925	2.585	3.175
5 TERTIARY	3.766	4.207	4.933
	7.594	8.923	10.484

CUMMULATIVE INVESTMENT - 1986-2000

7 PRIMARY	224	297	378
8 SECONDARY	322	474	560
11 TERTIARY	811	1,058	1,368
	1,367	1,829	2,306

URBAN EMPLOYMENT STATISTICS OF PROJECTIONS

	1985	1986-1990	1991-1995	1996-2000
EMPLOYMENT CHANGE	61.37	338.70	441.83	571.02
CHANGE IN MMC	11.68	64.37	84.13	108.7[illegible]
PERCENT MMC	.19032	.19023	.19041	.1904
NAT. AVE. COST/JOB	3377.3	3377.2	3376.5	2874.7

ASSESSMENT OF URBAN EMPLOYMENT GROWTH AND LABOR FORCE

ITEMS	1985	1990	1995	2000	GROWTH RATE (%)
URBAN POPULATIONS	4,500	6,150	8,450	10,500	5.01
IN LARGEST SETTLEMENTS	4,500	6,150	8,450	10,500	5.01
LABOR FORCE	1,575	2,153	2,958	3,675	5.01
EMPLOYMENT GENERATED BY ECONOMIC GROWTH	923	1,262	1,704	2,275	6.19
SURPLUS OR DEFICIT *	- 652	- 891	-1,254	-1,400	
POPULATION MULTIPLIERS **		4.876	5.206	3.590	

* Shows the supply of urban jobs generated by the economy minus the total urban labor force in the largest settlements.

** Shows the change in urban population divided by the change in urban labor, or the urban population which must be supported by each job.

Source: PADCO analysis

TABLE A8

ALTERNATE B

ECONOMIC PROJECTIONS, 1985 TO 2000

	SECTORS	1985	1990	1995	2000	RATE
	GDP PROJECTIONS IN CFA DILLIONS					
1	PRIMARY	340	402	472	553	3.09
2	SECONDARY	297	334	376	423	2.24
5	TERTIARY	655	735	825	928	2.20
	TOTALS	1,292	1,470	1,673	1,904	2.45
	PROJECTED SHARES OF SECTORAL INVESTMENT IN BILLIONS					
7	PRIMARY	63	72	82	105	3.21
8	SECONDARY	22	25	28	36	3.21
11	TERTIARY	122	138	157	202	3.21
	TOTALS	207	235	268	343	3.21
	SECTORAL EMPLOYMENT IN THOUSANDS					
13	PRIMARY	3,330	3,792	4,318	4,991	2.56
14	SECONDARY	168	191	217	250	2.51
17	TERTIARY	739	961	1,214	1,538	4.68
	TOTALS	4,238	4,945	5,749	6,778	2.98

GDP/CAPITA CFA	125	112	101	98	-1.49

INVESTMENT RATE 1986-1990= .160 ,1991-1995= .160 and 1996-2000= .180

CUMMULATIVE GDP, 1986 TO 2000

SECTORS	1986-1990	1991-1995	1996-2000
1 PRIMARY	1,882	2,217	2,599
2 SECONDARY	1,594	1,797	2,019
5 TERTIARY	3,511	3,940	4,428
	6,986	7,950	9,046

CUMMULATIVE INVESTMENT - 1986-2000

7 PRIMARY	343	390	500
8 SECONDARY	117	134	171
11 TERTIARY	657	748	957
	1,118	1,272	1,628

URBAN EMPLOYMENT STATISTICS OF PROJECTIONS

	1985	1986-1990	1991-1995	1996-2000
EMPLOYMENT CHANGE	45.3	244.93	278.55	356.77
CHANGE IN MMC	4.21	22.76	25.91	33.17
PERCENT MMC	.092936	.092925	.093017	.092973
NAT. AVE. COST/JOB	3162.9	3162.7	3164.5	2575.6

ASSESSMENT OF URBAN EMPLOYMENT GROWTH AND LABOR FORCE

ITEMS	1985	1990	1995	2000	GROWTH RATE (%)
URBAN POPULATIONS	4,500	6,150	8,450	10,500	5.01
IN LARGEST SETTLEMENTS	4,500	6,150	8,450	10,500	5.01
LABOR FORCE	1,575	2,153	2,958	3,675	5.01
EMPLOYMENT GENERATED BY ECONOMIC GROWTH	907	1,[illegible]	1,431	1,788	4.62
SURPLUS OR DEFICIT *	- 668	-1,000	-1,527	-1,887	
POPULATION MULTIPLIERS **		6.777	8.257	5.746	

* Shows the supply of urban jobs generated by the economy minus the total urban labor force in the largest settlements.

** Shows the change in urban population divided by the change in urban labor, or the urban population which must be supported by each job.

Source: PADCO analysis

distributed among the other regions. This alternate would also reduce Abidjan's share of the total urban population to about 45 percent by the year 2000.

Because jobs are not located in cities strictly according to the lowest marginal costs, the direct investment needed for employment creation in Alternate A1 would increase by CFA 129 billion, or about 3 percent for the 15-year period. Abidjan's share of total investment would be decreased by over 14 percent to just over 40 percent.

The potential for employment creation is an important consideration in the selection of interior cities for HG projects, but it is certainly only one of many considerations that enters into the decision. The NUPS Methodology does permit decisionmakers to assess the economic and cost ramifications of policies established to achieve social or political objectives.

C. Intra-Urban Infrastructure Costs

The intra-urban infrastructure program calculates the cost of providing infrastructure and services to new urban residents as well as the costs of upgrading existing substandard neighborhoods. With this information it is possible to compare the total cost of urban growth with the total available investment resources (Table A9). Over 15 years the expanding economy projected by Alternate A would generate sufficient investment capital to finance the total development costs for both job creation and infrastructure and services, but would be almost CFA 60 billion less than required for Alternate A1. In this case the additional cost of job creation caused by the decentralization policy are not offset by the reduction in infrastructure and service costs resulting from increased population living in towns with lower levels of service.

The total costs for Alternate B are CFA 262 billion more than the investment resources generated by the economy. This results in part from the higher infrastructure and service standards used for this option and could be brought more into balance by reducing standards to a lower level.

Because of the higher levels of services proposed for greater Abidjan, a high proportion (over 60 percent for Alternates A and B) of development funds would be committed to this small geographical area. The Center Region receives the next largest share of resources with 15 percent.

IV. CONCLUSIONS

There are a number of conclusions that can be drawn from the data generated by the NUPS Methodology which can be useful in the selection of sites and setting priorities for future housing and urban development activities:

TABLE A9

URBAN DEVELOPMENT COSTS
(Billion CFA)

Alternate	Job Creation	Infrastructure and Service Costs	Total Costs	Investment Resources	Difference
A	4,111	405	4,516	4,563	47
A1	4,240	379	4,619	4,563	56
B	2,507	539	3,046	2,784	262

1. The Ivory Coast has had one of the strongest economies in West Africa during the last two decades. If the economy can recover from the present problems caused by the worldwide recession and return to its past performance levels, it is possible to generate sufficient investment resources to fund both job creation and infrastructure and service costs at a moderate level for the expanding urban population.

2. Decentralization schemes that attempt to attract growth from the primate city to smaller, more remote settlements in the Ivory Coast will increase the costs of employment creation.

3. Abidjan does and will continue to dominate the settlement system in the Ivory Coast regardless of what development or investment strategy is adopted.

4. The majority of urban population growth in the Ivory Coast can be expected to take place in the South (including greater Abidjan) and Central regions. The remaining five regions will absorb small percentages of future growth.

ALTERNATE A

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT

INTRA-URBAN INFRASTRUCTURE COSTS

IVORY COAST
SUMMARY OF
ALTERNATE A/ICM05
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (000s)	1990 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	1995 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	2000 POPUL-ATION (000s)	TOTAL TOTAL Bill-ions)
GREATER ABIDJAN	2,625	3,499	575	4,714	758	5,907	840
SOUTH	445	584	95	779	126	955	140
SOUTH WEST	118	203	54	321	71	425	79
WEST	169	207	27	260	36	308	40
CENTER WEST	254	344	62	471	92	586	91
CENTER	772	1,114	220	1,584	291	2,005	322
EAST	38	44	5	52	6	62	7
NORTH	177	250	49	352	64	442	71
TOTALS	4,597	6,246	1,087	8,535	1,425	10,590	1,599

MARGINAL COSTS 1986-1990= 3,800
MARGINAL COSTS 1991-1995= 3,857
MARGINAL COSTS 1996-2000= 3,284

IVORY COAST
PERCENT DISTRIBUTION OF
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (%)	1990 POPUL-ATION (%)	TOTAL COSTS (%)	1995 POPUL-ATION (%)	TOTAL COSTS (%)	2000 POPUL-ATION (%)	TOTAL COSTS (%)
GREATER ABIDJAN	57.1	56.0	52.9	55.2	53.2	54.8	52.5
SOUTH	9.7	9.4	8.8	9.1	8.9	9.0	8.9
SOUTH WEST	2.6	3.3	5.0	3.8	5.0	4.0	4.9
WEST	3.7	3.3	2.5	3.0	2.5	2.9	2.5
CENTER WEST	5.5	5.5	5.7	5.5	5.7	5.5	5.7
CENTER	16.8	17.8	20.2	18.6	20.4	18.9	20.2
EAST	.8	.7	.4	.6	.4	.6	.4
NORTH	3.8	4.0	4.5	4.1	4.5	4.2	4.5

IVORY COAST
ALTERNATE A/ICMOS
SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1985-1990

SETTLEMENTS	1985 POPUL-ATION (000s)	CHANGE IN EMPLOY-MENT (000s)	CHANGE IN POPUL-ATION (000s)	1990 POPUL-ATION (000s)	GROWTH EMPLOY-MENT (%)	RATES POPULA-TION (%)	AVERAGE COST/ JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN								
1 ABIDJAN	2,500	173	843	3,343	1.051	1.060	3,205	554
2 GRAND BASSAM	54	4	20	75	1.048	1.065	3,234	13
3 ANYAMA	48	1	6	53	1.021	1.024	3,541	4
4 BINGERVILLE	24	1	5	28	1.023	1.037	3,509	3
Subtotal	2,625	179	874	3,499				575
SOUTH								
5 DIVO	71	2	11	82	1.020	1.029	3,554	8
6 ABENGOUROU	60	3	15	75	1.026	1.047	3,480	11
7 AGBOVILLE	54	8	37	91	1.069	1.109	3,020	23
8 DABOU	46	2	10	56	1.020	1.039	3,551	7
9 ADIOPE	42	2	10	52	1.024	1.043	3,504	7
10 BONOUA	31	2	11	41	1.026	1.061	3,475	8
11 ADDISSO	23	1	5	28	1.022	1.040	3,525	4
12 ASNIBILEKROU	23	3	14	37	1.049	1.103	3,219	10
13 LAKOTA	22	1	7	29	1.032	1.058	3,405	5
14 AFFERY	20	1	4	24	1.019	1.035	3,559	3
15 AKOUPE	19	1	7	26	1.034	1.061	3,387	5
16 HIPRE MATTA	18	1	2	20	1.015	1.027	3,615	2
17 TIASSALE	16	1	7	23	1.042	1.074	3,295	5
Subtotal	445	29	139	584				95
SOUTH WEST								
18 SAN PEDRO	100	17	82	182	1.066	1.127	3,047	51
19 SASSANDRA	18	1	4	22	1.024	1.042	3,504	3
Subtotal	118	18	86	203				54
WEST								
20 MAN	99	5	24	123	1.023	1.044	3,508	17
21 DANANE	30	1	6	36	1.020	1.034	3,543	4
22 DUEKOUE	23	1	4	28	1.017	1.034	3,584	3
23 GUIGLO	16	1	4	20	1.022	1.044	3,520	3
Subtotal	169	8	37	207				27
CENTER WEST								
24 DALOA	108	6	31	139	1.032	1.052	3,405	22
25 GAGNOA	78	8	40	117	1.042	1.096	3,294	27
26 OUME	25	3	13	38	1.049	1.086	3,223	9
27 SEGUELA	27		1	27	1.006	1.011	3,724	1
28 ISSIA	20	1	6	26	1.028	1.051	3,449	4
Subtotal	254	19	90	344				62
CENTER								
29 BOUAKE	336	44	212	548	1.048	1.163	3,026	132
30 YAMOUSSOUKRO	83	4	18	100	1.024	1.039	3,502	13
31 DIMBOKRO	71	11	54	125	1.058	1.121	[illegible]	35
32 KATIOLA	33	2	10	43	1.031	1.051	3,423	7
33 SINFRA	33	1	6	39	1.020	1.034	3,545	4
34 BOUAFLE	33	3	13	45	1.041	1.069	3,310	9
35 ARRAH	30		1	31	1.006	1.010	3,725	1
36 BONGOUANOU	28	1	5	33	1.014	1.031	3,616	3
37 TOUMODI	24	1	5	29	1.022	1.029	3,517	4
38 DAOUKRO	23	1	3	27	1.015	1.029	3,611	3
39 SEIBRA	21	1	5	26	1.030	1.049	3,432	4
40 BEOUMI	20	1	4	23	1.022	1.037	3,526	3
41 M'BAHIAKRO	19	1	3	22	1.021	1.034	3,539	3
42 M'BATTO	19	1	3	21	1.016	1.026	3,599	2
Subtotal	772	70	342	1,114				220
EAST								
43 BONDOUKOU	38	1	6	44	1.023	1.032	3,511	5
Subtotal	38	1	6	44				5
NORTH								
44 KORHOGO	86	6	28	113	1.029	1.057	3,443	19
45 FERKESSEDOUGOU	48	8	40	87	1.069	1.129	3,017	25
46 ODIENNE	25		1	26	1.004	1.008	3,751	1
47 BOUNDIALI	19	1	5	24	1.025	1.051	3,485	4
Subtotal	177	15	73	250				49
TOTALS	4,597	338	1,649	6,246				1,087

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SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1991-1995

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1995 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	225	1,172	4,515	1.051	1.062	3,245	730
2 GRAND BASSAM	5	28	103	1.049	1.066	3,268	18
3 ANYAMA	2	8	62	1.025	1.030	3,548	6
4 DIMBERVILLE	1	7	35	1.027	1.043	3,515	5
Subtotal	233	1,215	4,714				758
SOUTH							
5 DIVO	3	16	97	1.024	1.036	3,562	11
6 ABENGOUROU	4	22	97	1.030	1.052	3,495	15
7 AGBOVILLE	10	50	141	1.063	1.092	3,121	30
8 DABOU	3	14	69	1.024	1.045	3,559	9
9 ADIOPE	3	14	66	1.029	1.049	3,510	9
10 BONOUA	3	15	56	1.030	1.063	3,480	10
11 ABOISSO	1	7	35	1.026	1.046	3,531	5
12 AGNIBILEKROU	4	20	57	1.050	1.090	3,256	13
13 LAKOTA	2	10	40	1.036	1.061	3,414	7
14 AFFERY	1	5	29	1.023	1.042	3,566	4
15 AKOUPE	2	9	35	1.039	1.064	3,398	6
16 MIRPE MATTA	1	4	24	1.018	1.033	3,627	2
17 TIASSALE	2	10	33	1.045	1.073	3,317	6
Subtotal	38	195	779				126
SOUTH WEST							
18 SAN PEDRO	21	112	294	1.062	1.101	3,137	67
19 SASSANDRA	1	6	27	1.028	1.048	3,510	4
Subtotal	23	117	321				71
WEST							
20 MAN	6	33	156	1.028	1.049	3,514	23
21 DANANE	2	8	44	1.024	1.041	3,550	5
22 DUEKOUE	1	6	34	1.021	1.041	3,594	4
23 GUIGLO	1	6	26	1.026	1.050	3,527	4
Subtotal	10	53	260				36
CENTER WEST							
24 DALOA	8	44	182	1.036	1.056	3,414	29
25 GAGNOA	11	55	173	1.045	1.081	3,317	35
26 OUME	3	18	56	1.030	1.080	3,259	11
27 SEGUELA		2	25	1.008	1.017	3,750	1
28 ISSIA	2	8	34	1.022	1.036	3,457	5
Subtotal	24	127	471				82
CENTER							
29 BOUAKE	55	289	837	1.063	1.098	3,124	173
30 YAMOUSOUKRO	5	25	125	1.028	1.045	3,507	17
31 DIMBOKRO	14	75	200	1.057	1.098	3,197	46
32 KATIOLA	3	13	56	1.022	1.056	3,430	9
33 SINFRA	2	8	47	1.024	1.040	3,551	6
34 BOUAFLE	3	18	63	1.044	1.068	3,331	11
35 ARRAH		2	34	1.008	1.015	3,751	2
36 BONGOUANOU	1	7	40	1.018	1.028	3,678	5
37 TOUMODI	1	7	37	1.027	1.044	3,524	5
38 DAOUKRO	1	5	32	1.019	1.025	3,623	3
39 SEITIGA	1	8	34	1.034	1.054	3,440	5
40 BEOUMI	1	6	29	1.026	1.043	3,532	4
41 M'BAHIAKRO	1	5	27	1.025	1.041	3,545	3
42 M'BATTO	1	4	25	1.020	1.033	3,610	3
Subtotal	90	471	1,584				291
EAST							
43 BONDOUKOU	2	9	53	1.027	1.039	3,517	6
Subtotal	2	9	53				6
NORTH							
44 KORHOGO	7	39	152	1.033	1.061	3,450	26
45 FERKESSEDOUGOU	10	54	141	1.064	1.101	3,118	32
46 ODIENNE		2	28	1.006	1.013	3,782	1
47 BOUNDIALI	1	7	31	1.029	1.056	3,490	5
Subtotal	20	102	352				64
TOTALS	440	2,290	8,535				1,435

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1996-2000

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	2000 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	294	1,054	5,568	1.0521	1.0429	2,756	809
2 GRAND BASSAM	7	25	128	1.0504	1.0451	2,770	20
3 ANYAMA	2	8	69	1.0285	1.0236	2,981	6
4 BINGERVILLE	2	6	41	1.0312	1.0323	2,953	5
Subtotal	304	1,093	5,807				840
SOUTH							
5 DIVO	4	14	112	1.0272	1.0275	2,992	12
6 ABENGOUROU	5	20	117	1.0237	1.0377	2,928	16
7 AGROVILLE	12	45	186	1.0604	1.0564	2,682	33
8 DABOU	3	12	82	1.0275	1.0375	2,989	10
9 ADZOPE	4	13	78	1.0316	1.0358	2,948	10
10 BONOUA	4	14	70	1.0341	1.0439	2,925	11
11 ABOISSO	2	6	42	1.0298	1.0340	2,967	5
12 AGNIBILEKROU	5	18	76	1.0513	1.0563	2,763	14
13 LAKOTA	3	9	49	1.0395	1.0428	2,873	7
14 AFFERY	1	5	34	1.0269	1.0315	2,995	4
15 AKOUPE	2	8	43	1.0407	1.0439	2,861	7
16 NIPPE MAFFA	1	3	27	1.0217	1.0261	3,049	3
17 TIASSALE	2	9	42	1.0468	1.0486	2,803	7
Subtotal	49	176	955				140
SOUTH WEST							
18 SAN PEDRO	28	99	393	1.0593	1.0600	2,690	74
19 SASSANDRA	1	5	32	1.0316	1.0352	2,948	4
Subtotal	29	104	425				79
WEST							
20 MAN	8	30	187	1.0313	1.0361	2,952	25
21 DANANE	2	7	51	1.0283	1.0308	2,983	6
22 DUEKOUE	2	6	39	1.0246	1.0310	3,020	5
23 GUIGLO	1	5	31	1.0302	1.0364	2,962	4
Subtotal	13	48	308				40
CENTER WEST							
24 DALOA	11	39	222	1.0394	1.0400	2,874	32
25 GAGNOA	14	50	223	1.0469	1.0522	2,804	39
26 OUME	5	16	73	1.0511	1.0520	2,765	13
27 SEGUELA	1	2	27	1.0109	1.0143	3,164	2
28 ISSIA	2	7	42	1.0360	1.0398	2,906	6
Subtotal	32	115	586				91
CENTER							
29 BOUAKE	71	256	1,093	1.0601	1.0549	2,683	192
30 YAMOUSSOUKRO	6	23	149	1.0319	1.0337	2,947	19
31 DIMBOKRO	19	67	266	1.0540	1.0595	2,720	51
32 KATIOLA	3	12	68	1.0281	1.0398	2,885	10
33 SINFRA	2	8	55	1.0282	1.0323	2,983	6
34 BOUAFLE	4	16	79	1.0459	1.0463	2,813	13
35 ABRAM	1	2	36	1.0109	1.0127	3,165	2
36 BONGOUANOU	2	6	46	1.0216	1.0293	3,050	5
37 TOUMODI	2	6	43	1.0205	1.0371	2,960	5
38 DAOUKRO	1	5	36	1.0221	1.0259	3,045	4
39 SEITRA	2	7	41	1.0372	1.0285	2,893	6
40 BECUNI	1	5	34	1.0298	1.0326	2,966	4
41 M'BAHIAKRO	1	5	32	1.0287	1.0309	2,979	4
42 M'BATTO	1	3	28	1.0233	1.0257	3,034	3
Subtotal	117	421	2,005				322
EAST							
43 BONDOUKOU	2	8	62	1.0311	1.0296	2,935	7
Subtotal	2	8	62				7
NORTH							
44 KORHOGO	10	35	187	1.0366	1.0476	2,901	29
45 FERKESSEDOUGOU	13	48	189	1.0605	1.0670	2,690	36
46 ODIENNE		2	29	1.0079	1.0115	3,196	1
47 BOUNDIALI	2	7	38	1.0332	1.0397	2,933	5
Subtotal	25	91	443				71
TOTALS	573	2,057	10,592				1,589

MARGINAL COSTS= 3,284

IVORY COAST
ALTERNATE A/ICM05
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	39,954	0	33,013	72,967	23,828
SOUTH	1,983	0	4,990	6,973	13,554
SOUTH WEST	1,196	0	3,219	4,415	27,498
WEST	679	0	1,678	2,357	12,541
CENTER WEST	1,416	0	3,521	4,938	16,523
CENTER	4,609	0	12,288	16,897	17,920
EAST	70	0	266	336	8,199
NORTH	1,062	0	2,740	3,802	17,807
TOTALS	50,972	0	61,716	112,670	20,783

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A/ICM05
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	79.38	0.00	53.49	64.76
SOUTH	3.89	0.00	8.09	6.19
SOUTH WEST	2.35	0.00	5.22	3.92
WEST	1.33	0.00	2.72	2.09
CENTER WEST	2.78	0.00	5.71	4.38
CENTER	9.04	0.00	19.91	15.00
EAST	.14	0.00	.43	.30
NORTH	2.08	0.00	4.44	3.37

Source: PADCO computer analysis

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IVORY COAST
ALTERNATE A/ICM05
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	2,529	14,414	16,685	2,124	0	2,675	0	5,877	16,275	9,592	38,427	31,744	70,171	24,021
2 GRAND BASSAM	50	353	392	52	0	64	0	138	391	235	912	765	1,676	25,976
3 ANYAMA	15	103	209	15	0	26	0	74	157	69	368	300	667	13,225
4 BINGERVILLE	12	82	124	12	0	17	0	44	106	55	247	204	452	17,331
Subtotal	2,605	14,952	17,410	2,204	0	2,783	0	6,132	16,929	9,951	39,[illegible]	33,013	72,967	23,828
SOUTH														
5 DIVO	21	0	253	0	0	0	0	122	276	131	274	528	802	10,501
6 ABENGOUROU	29	0	266	0	0	0	0	128	332	184	296	643	938	13,907
7 AGBOVILLE	62	0	425	0	0	0	0	204	650	428	493	1,282	1,775	24,442
8 DABOU	18	0	181	0	0	0	0	87	213	111	198	411	610	11,978
9 ADZOPE	14	0	82	0	0	0	0	83	211	36	96	330	426	9,114
10 BONOUA	19	0	155	0	0	0	0	75	207	122	175	404	579	16,007
11 ABOISSO	7	0	41	0	0	0	0	44	109	18	48	172	220	8,577
12 AGNIBILEKROU	22	0	127	0	0	0	0	87	272	56	149	415	564	18,723
13 LAKOTA	11	0	62	0	0	0	0	54	148	27	73	229	302	11,695
14 AFFERY	6	0	32	0	0	0	0	37	88	14	38	139	177	8,160
15 ADZOPE	10	0	56	0	0	0	0	47	132	25	66	204	269	12,102
16 MIKRE MATTA	1	0	5	0	0	0	0	7	15	2	6	25	30	1,619
17 TIASSALE	10	0	60	0	0	0	0	47	136	27	71	209	280	14,130
Subtotal	225	0	1,748	0	0	0	0	1,020	2,789	1,181	1,983	4,990	6,973	13,554
SOUTH WEST														
18 SAN PEDRO	165	0	990	0	0	0	0	475	1,556	1,044	1,155	3,075	4,230	30,008
19 SASSANDRA	6	0	35	0	0	0	0	36	92	16	41	144	185	9,444
Subtotal	171	0	1,025	0	0	0	0	511	1,648	1,059	1,196	3,219	4,415	27,498
WEST														
20 MAN	50	0	478	0	0	0	0	230	583	316	529	1,129	1,658	14,925
21 DANANE	9	0	53	0	0	0	0	63	148	24	63	234	297	8,958
22 DUEKOUE	7	0	39	0	0	0	0	45	106	17	46	171	216	9,499
23 GUIGLO	6	0	36	0	0	0	0	36	92	16	42	144	186	10,173
Subtotal	72	0	607	0	0	0	0	374	931	373	679	1,678	2,357	12,541
CENTER WEST														
24 DALOA	62	0	542	0	0	0	0	260	692	394	604	1,346	1,950	15,824
25 GAGNOA	77	0	529	0	0	0	0	254	767	486	606	1,507	2,113	21,638
26 OUPE	19	0	111	0	0	0	0	81	245	49	131	375	505	15,843
27 SEGUELA	2	0	12	0	0	0	0	31	55	5	14	91	105	4,628
28 ISSIA	9	0	53	0	0	0	0	49	130	23	62	202	264	11,323
Subtotal	170	0	1,247	0	0	0	0	675	1,890	957	1,416	3,521	4,938	16,523
CENTER														
29 BOUAKE	413	0	2,651	0	0	0	0	1,272	4,000	2,607	3,063	7,879	10,942	24,735
30 YAMOUSOUKRO	34	0	347	0	0	0	0	166	411	216	381	793	1,174	12,817
31 DIABOKRO	97	0	465	0	0	0	0	299	972	205	562	1,476	2,038	20,263
32 KATIOLA	15	0	87	0	0	0	0	80	213	38	102	332	434	11,371
33 SINFRA	12	0	52	0	0	0	0	62	146	22	64	230	295	8,194
34 BOUAFLE	19	0	108	0	0	0	0	87	249	48	127	383	510	13,109
35 ARRAH	2	0	13	0	0	0	0	38	66	6	15	110	125	4,106
36 BONGOUANOU	7	0	40	0	0	0	0	50	114	17	47	181	228	7,446
37 TOUMODI	10	0	43	0	0	0	0	47	115	19	53	181	234	8,697
38 DAOUKRO	5	0	30	0	0	0	0	39	88	13	35	141	175	7,004
39 SEITIFA	8	0	48	0	0	0	0	46	120	21	57	188	244	10,512
40 BECUMI	5	0	36	0	0	0	0	40	96	16	42	152	194	9,026
41 M'BAHIAKRO	5	0	31	0	0	0	0	36	85	14	36	135	171	8,237
42 M'BATTO	4	0	22	0	0	0	0	31	67	10	26	107	133	6,738
Subtotal	627	0	3,972	0	0	0	0	2,293	6,743	3,252	4,609	12,298	16,897	17,920
EAST														
43 BONDOUKOU	10	0	59	0	0	0	0	72	168	26	70	266	336	8,199
Subtotal	10	0	59	0	0	0	0	72	168	26	70	266	336	8,199
NORTH														
44 KORHOGO	59	0	482	0	0	0	0	231	634	370	541	1,236	1,777	17,880
45 FERKESSEDOUGOU	66	0	382	0	0	0	0	241	793	168	448	1,203	1,650	24,440
46 DIENNE	2	0	10	0	0	0	0	37	60	4	12	101	113	4,434
47 BOUNDIALI	9	0	52	0	0	0	0	49	129	23	61	200	262	12,404
Subtotal	135	0	927	0	0	0	0	558	1,616	566	1,062	2,740	3,802	17,807
TOTALS	4,025	14,952	26,991	2,204	0	2,783	0	11,635	32,712	17,365	50,972	61,716	112,670	20,783

IVORY COAST
ALTERNATE A/ICM05
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	52,337	0	45,548	97,885	23,835
SOUTH	2,541	0	6,893	9,434	13,836
SOUTH WEST	1,547	0	4,512	6,058	23,106
WEST	859	0	2,291	3,151	13,518
CENTER WEST	1,814	0	4,920	6,734	16,516
CENTER	5,978	0	17,022	23,000	17,048
EAST	99	0	353	452	9,264
NORTH	1,389	0	3,819	5,208	17,294
TOTALS	66,565	0	85,357	151,900	20,554

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A/ICM05
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	78.63	0.00	53.35	64.44
SOUTH	3.82	0.00	8.09	6.21
SOUTH WEST	2.32	0.00	5.29	3.99
WEST	1.29	0.00	2.68	2.07
CENTER WEST	2.73	0.00	5.76	4.43
CENTER	8.98	0.00	19.94	15.14
EAST	.15	0.00	.41	.30
NORTH	2.09	0.00	4.47	3.43

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A/ICMOS
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITATION	CIRCULATION	TRANSPORT	POWER	OTHER PHYSICAL	HOUSING	HEALTH	EDUCATION	OTHER SOCIAL	TOTAL PHYSICAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	3,515	20,038	20,346	2,953	0	3,504	0	8,033	22,448	13,335	50,356	43,816	94,172	23,971
2 GRAND BASSAM	69	493	483	73	0	85	0	191	544	328	1,203	1,063	2,266	25,523
3 ANYAMA	21	147	237	22	0	32	0	90	205	92	459	392	851	14,765
4 BINGERVILLE	17	116	146	17	0	22	0	57	143	78	319	277	597	18,7[illegible]
Subtotal	3,622	20,794	21,212	3,064	0	3,644	0	8,371	23,340	13,839	52,337	45,548	97,885	23,835
SOUTH														
5 DIVO	30	0	294	0	0	0	0	153	366	186	323	706	1,029	11,476
6 ADENGOUROU	41	0	321	0	0	0	0	170	455	259	362	885	1,246	14,492
7 AGBOVILLE	92	0	536	0	0	0	0	296	908	582	628	1,786	2,414	20,794
8 DABOU	25	0	215	0	0	0	0	113	290	159	240	562	803	12,833
9 ADZOPE	20	0	116	0	0	0	0	110	288	51	136	450	586	9,996
10 BONOUA	27	0	192	0	0	0	0	103	289	173	219	565	784	16,042
11 ABOISSO	10	0	59	0	0	0	0	58	149	26	69	232	301	9,499
12 AGNIBILEKROU	30	0	177	0	0	0	0	127	387	78	208	592	800	16,877
13 LAKOTA	15	0	88	0	0	0	0	74	206	39	103	318	421	12,185
14 AFFERY	8	0	46	0	0	0	0	47	119	20	54	187	240	9,162
15 AKOUPE	14	0	79	0	0	0	0	65	184	35	92	264	377	12,500
16 MIRRE WATTA	1	0	7	0	0	0	0	9	20	3	9	32	41	1,868
17 TIASSALE	14	0	84	0	0	0	0	66	191	37	99	294	393	13,921
Subtotal	328	0	2,213	0	0	0	0	1,391	3,854	1,648	2,541	6,893	9,434	13,936
SOUTH WEST														
18 SAN PEDRO	225	0	1,[illegible]53	0	0	0	0	700	2,192	1,424	1,488	4,316	5,804	24,412
19 SASSANDRA	9	0	50	0	0	0	0	48	125	22	59	195	254	10,395
Subtotal	234	0	1,313	0	0	0	0	748	2,317	1,446	1,547	4,512	6,058	23,106
WEST														
20 MAN	71	0	574	0	0	0	0	304	800	449	645	1,553	2,198	15,745
21 DANANE	13	0	76	0	0	0	0	80	200	34	89	313	403	10,092
22 DUEKOUE	10	0	56	0	0	0	0	58	146	25	65	229	294	9,610
23 GUIGLO	9	0	51	0	0	0	0	48	126	22	60	197	256	11,141
Subtotal	103	0	757	0	0	0	0	490	1,271	530	859	2,291	3,151	13,518
CENTER WEST														
24 BALOA	88	0	657	0	0	0	0	[illegible]	956	555	745	1,862	2,607	16,247
25 BAGNOA	109	0	670	0	0	0	0	365	1,089	682	778	2,136	2,914	20,074
26 GUME	27	0	155	0	0	0	0	116	346	68	182	530	712	15,008
27 SEGUELA	5	0	18	0	0	0	0	36	69	8	21	113	134	5,515
28 ISSIA	13	0	75	0	0	0	0	66	180	33	88	279	366	12,106
Subtotal	239	0	1,576	0	0	0	0	934	2,639	1,346	1,814	4,920	6,734	16,516
CENTER														
29 BOUAKE	561	0	3,326	0	0	0	0	1,832	5,574	3,548	3,887	10,953	14,840	21,421
30 YAMOUSOUKRO	48	0	411	0	0	0	0	217	556	305	459	1,078	1,537	13,630
31 DIMBOKRO	135	0	641	0	0	0	0	442	1,379	282	776	2,103	2,880	17,758
32 KATIOLA	21	0	123	0	0	0	0	108	295	54	144	457	601	12,111
33 SINFRA	17	0	74	0	0	0	0	79	195	33	91	306	397	9,215
34 BOUAFLE	26	0	152	0	0	0	0	122	348	67	178	537	715	13,223
35 ARRAH	3	0	20	0	0	0	0	43	81	9	23	134	157	4,852
36 BONGOUANOU	10	0	57	0	0	0	0	63	154	25	67	242	309	8,529
37 TOUMODI	14	0	61	0	0	0	0	61	156	27	75	244	319	9,683
38 DAOUKRO	7	0	42	0	0	0	0	49	117	19	50	185	235	8,047
39 SEIZRA	12	0	68	0	0	0	0	62	166	30	80	258	338	11,310
40 BEDOKI	9	0	51	0	0	0	0	51	130	22	59	204	263	10,059
41 M'BAHIAKRO	8	0	44	0	0	0	0	46	115	19	51	180	231	9,266
42 M'BATTO	5	0	32	0	0	0	0	38	89	14	37	141	178	7,754
Subtotal	877	0	5,101	0	0	0	0	3,213	9,355	4,454	5,978	17,022	23,000	17,048
EAST														
43 BONDOUKOU	15	0	84	0	0	0	0	91	225	37	99	353	452	9,264
Subtotal	15	0	84	0	0	0	0	91	225	37	99	353	452	9,264
NORTH														
44 KORHOGO	83	0	592	0	0	0	0	318	884	523	675	1,724	2,399	18,087
45 FERKESSEDOUGOU	89	0	519	0	0	0	0	355	1,112	229	608	1,695	2,303	20,157
46 ODIENNE	3	0	17	0	0	0	0	41	75	7	20	123	143	5,321
47 BOUNDIALI	13	0	74	0	0	0	0	65	178	33	97	276	363	13,239
Subtotal	187	0	1,202	0	0	0	0	779	2,248	792	1,389	3,819	5,208	17,294
TOTALS	5,605	20,794	33,459	3,064	0	3,644	0	16,017	45,250	24,093	66,565	85,357	151,900	20,554

Source: PADCO analysis

IVORY COAST
ALTERNATE A/ICM05
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	46,726	0	43,089	89,815	17,072
SOUTH	2,264	0	6,553	8,617	10,165
SOUTH WEST	1,368	0	4,262	5,630	15,087
WEST	767	0	2,175	2,942	10,372
CENTER WEST	1,620	0	4,690	6,310	11,930
CENTER	5,312	0	16,124	21,436	11,944
EAST	90	0	336	426	7,392
NORTH	1,238	0	3,647	4,885	12,283
TOTALS	59,382	0	80,877	140,270	14,667

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A/ICM05
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	78.69	0.00	53.29	64.03
SOUTH	3.81	0.00	8.10	6.29
SOUTH WEST	2.30	0.00	5.27	4.01
WEST	1.29	0.00	2.69	2.10
CENTER WEST	2.73	0.00	5.80	4.50
CENTER	8.95	0.00	19.94	15.28
EAST	.15	0.00	.42	.30
NORTH	2.09	0.00	4.51	3.48

Source: PADCO computer analysis

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IVORY COAST
ALTERNATE A/ICM05
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	3,162	18,022	17,990	2,656	0	3,128	0	8,113	21,347	11,993	44,958	41,453	86,411	17,140
2 GRAND BASSAM	62	443	427	65	0	76	0	194	518	295	1,074	1,007	2,081	17,996
3 ANYAMA	19	133	208	20	0	29	0	86	192	89	409	367	776	11,825
4 BINGERVILLE	15	106	129	16	0	20	0	56	136	70	285	262	547	14,358
Subtotal	3,258	18,704	18,754	2,756	0	3,253	0	8,449	22,193	12,447	46,726	43,089	89,815	17,072
SOUTH														
5 DIVO	27	0	258	0	0	0	0	148	345	169	285	663	948	9,072
6 ABENGOUROU	37	0	284	0	0	0	0	171	434	235	322	840	1,161	10,863
7 AGBOVILLE	82	0	473	0	0	0	0	305	862	517	554	1,683	2,238	13,694
8 DABOU	23	0	190	0	0	0	0	112	275	144	213	532	744	9,846
9 ADZOPE	18	0	105	0	0	0	0	109	274	46	123	430	553	7,700
10 BONGOUA	25	0	171	0	0	0	0	105	277	157	195	539	734	11,641
11 ABOISSO	9	0	53	0	0	0	0	57	141	23	62	222	285	7,410
12 AGNIBILEKROU	27	0	160	0	0	0	0	131	371	70	187	572	759	11,420
13 LAKOTA	14	0	79	0	0	0	0	75	197	35	93	306	399	9,017
14 AFFERY	7	0	41	0	0	0	0	47	113	18	49	178	226	7,231
15 AKOUPE	12	0	71	0	0	0	0	66	176	31	84	274	358	9,195
16 HIRRE WATTA	1	0	7	0	0	0	0	8	19	3	8	31	38	1,518
17 TIASSALE	13	0	76	0	0	0	0	67	183	34	89	284	373	9,923
Subtotal	295	0	1,969	0	0	0	0	1,402	3,367	1,483	2,264	6,553	8,817	10,165
SOUTH WEST														
18 SAN PEDRO	200	0	1,115	0	0	0	0	726	2,083	1,266	1,315	4,075	5,390	15,700
19 SASSANDRA	8	0	45	0	0	0	0	48	119	20	53	187	240	8,039
Subtotal	208	0	1,160	0	0	0	0	774	2,202	1,286	1,368	4,262	5,630	15,087
WEST														
20 MAN	64	0	508	0	0	0	0	303	760	407	572	1,470	2,042	11,909
21 DANANE	12	0	69	0	0	0	0	79	189	30	81	299	380	8,008
22 BUEKOUE	9	0	51	0	0	0	0	58	138	22	59	218	278	7,629
23 GUIGLO	8	0	46	0	0	0	0	48	120	20	54	188	242	8,552
Subtotal	93	0	674	0	0	0	0	487	1,208	480	767	2,175	2,942	10,372
CENTER WEST														
24 DALOA	80	0	583	0	0	0	0	353	913	503	663	1,769	2,432	12,041
25 GAGNOA	97	0	597	0	0	0	0	377	1,044	616	694	2,036	2,730	13,791
26 OUME	24	0	140	0	0	0	0	119	331	62	164	512	675	10,447
27 SEBUELA	3	0	17	0	0	0	0	33	65	8	20	106	126	4,779
28 ISSIA	12	0	68	0	0	0	0	66	171	30	79	267	347	9,117
Subtotal	216	0	1,404	0	0	0	0	949	2,523	1,218	1,620	4,690	6,310	11,930
CENTER														
29 BOUAKE	498	0	2,929	0	0	0	0	1,883	5,283	3,150	3,428	10,316	13,744	14,239
30 YAMOUSSOUKRO	44	0	363	0	0	0	0	215	529	277	407	1,021	1,428	10,467
31 DIMBOKRO	126	0	574	0	0	0	0	460	1,317	253	699	2,030	2,729	11,715
32 KATIOLA	19	0	111	0	0	0	0	109	281	49	130	438	568	9,112
33 SINFRA	16	0	67	0	0	0	0	77	185	30	83	292	375	7,339
34 BOUAFLE	24	0	137	0	0	0	0	124	333	60	160	517	678	9,564
35 ARRAH	3	0	19	0	0	0	0	40	76	8	22	124	146	4,220
36 BONGOUANOU	9	0	52	0	0	0	0	62	146	23	61	230	292	6,840
37 TOUMODI	13	0	55	0	0	0	0	60	148	24	68	233	301	7,577
38 DAOUKRO	7	0	39	0	0	0	0	49	111	17	45	176	221	6,538
39 SEIZRA	11	0	62	0	0	0	0	62	158	27	72	247	319	8,579
40 BEOUMI	8	0	46	0	0	0	0	51	124	20	54	195	249	7,904
41 M'BAHIAKRO	7	0	40	0	0	0	0	45	109	18	47	172	218	7,347
42 M'BATTO	5	0	29	0	0	0	0	37	84	13	34	133	167	6,311
Subtotal	789	0	4,523	0	0	0	0	3,272	8,882	3,969	5,312	16,124	21,436	11,944
EAST														
43 BONDOUKOU	13	0	77	0	0	0	0	90	213	34	90	336	426	7,392
Subtotal	13	0	77	0	0	0	0	90	213	34	90	336	426	7,392
NORTH														
44 KORHOGO	75	0	526	0	0	0	0	322	845	474	601	1,641	2,242	13,203
45 FERKESSEDOUGOU	79	0	460	0	0	0	0	368	1,056	203	539	1,626	2,166	13,120
46 ODIENNE	3	0	16	0	0	0	0	38	79	7	19	115	134	6,711
47 BOUNDIALI	12	0	67	0	0	0	0	66	170	30	79	265	344	9,993
Subtotal	168	0	1,070	0	0	0	0	793	2,140	714	1,238	3,647	4,885	12,283
TOTALS	5,041	18,704	29,630	2,756	0	3,253	0	16,219	43,031	21,630	59,282	80,877	140,270	14,667

Source: PADCO analysis

ALTERNATE A1

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT

INTRA-URBAN INFRASTRUCTURE COSTS

IVORY COAST
SUMMARY OF
ALTERNATE A1/ICM07
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (000s)	1990 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	1995 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	2000 POPUL-ATION (000s)	TOTAL TOTAL Bill-ions)
GREATER ABIDJAN	2,625	3,210	365	3,977	425	4,987	645
SOUTH	445	648	147	954	213	1,182	190
SOUTH WEST	116	225	71	382	102	504	96
WEST	167	230	46	324	67	392	58
CENTER WEST	254	391	92	574	177	720	120
CENTER	772	1,224	309	1,890	445	2,401	410
EAST	36	48	8	64	11	76	10
NORTH	177	279	72	431	104	546	94
TOTALS	4,597	6,247	1,111	8,555	1,545	10,608	1,623

MARGINAL COSTS 1986-1990= 4,175
MARGINAL COSTS 1991-1995= 4,375
MARGINAL COSTS 1996-2000= 3,462

IVORY COAST
PERCENT DISTRIBUTION OF
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (%)	1990 POPUL-ATION (%)	TOTAL COSTS (%)	1995 POPUL-ATION (%)	TOTAL COSTS (%)	2000 POPUL-ATION (%)	TOTAL COSTS (%)
GREATER ABIDJAN	57.1	51.4	32.8	46.5	28.5	45.1	39.7
SOUTH	9.7	10.4	13.2	11.1	14.2	11.1	11.7
SOUTH WEST	2.6	3.6	6.4	4.5	6.6	4.3	5.9
WEST	3.7	3.7	4.1	3.8	4.5	3.7	3.6
CENTER WEST	5.5	6.1	8.3	6.7	8.9	6.8	7.4
CENTER	16.8	19.6	27.8	22.1	29.6	22.6	25.7
EAST	.8	.8	.7	.7	.8	.7	.6
NORTH	3.8	4.5	6.5	5.0	6.9	5.2	5.8

IVORY COAST
ALTERNATE A1/ICM07
SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1985-1990

SETTLEMENTS	1985 POPULATION (000s)	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1990 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN								
1 ABIDJAN	2,500	111	541	3,041	1.034	1.040	3,003	333
2 GRAND BASSAM	54	5	27	81	1.061	1.083	3,402	19
3 ANYAMA	48	2	10	57	1.034	1.039	3,725	8
4 DIBGERVILLE	24	2	8	31	1.036	1.057	3,690	6
Subtotal	2,625	120	585	3,210				365
SOUTH								
5 DIVO	71	4	19	90	1.033	1.048	3,738	14
6 ABENGOUROU	60	5	24	83	1.039	1.069	3,659	18
7 AGBOVILLE	54	9	45	100	1.092	1.129	3,177	30
8 DABOU	46	3	16	62	1.033	1.063	3,736	13
9 ADZOPE	42	3	16	57	1.037	1.066	3,685	12
10 BONOUA	31	3	16	47	1.039	1.088	3,651	12
11 ABOISSO	23	2	8	31	1.035	1.062	3,7[illegible]8	6
12 AGNIBILEKROU	23	4	19	42	1.063	1.128	3,385	13
13 LAKOTA	22	2	10	33	1.046	1.080	3,531	8
14 AFFERY	20	1	6	26	1.032	1.058	3,743	5
15 AKOUPE	19	2	9	28	1.047	1.08[illegible]	3,562	7
16 MIRRE BATTA	18	1	5	22	1.027	1.049	3,80[illegible]	4
17 TIASSALE	16	2	9	26	1.055	1.096	3,4[illegible]	7
Subtotal	445	42	203	648				147
SOUTH WEST								
18 SAN PEDRO	100	21	101	201	1.080	1.150	3,205	67
19 SASSANDRA	18	1	6	24	1.037	1.064	3,685	5
Subtotal	118	22	108	225				71
WEST								
20 MAN	99	8	38	137	1.036	1.066	3,690	28
21 DANANE	30	2	9	40	1.033	1.055	3,727	7
22 DUEKOUE	23	2	8	31	1.030	1.059	3,770	6
23 GUIGLO	16	1	6	23	1.035	1.068	3,703	5
Subtotal	169	13	61	230				46
CENTER WEST								
24 DALOA	108	9	45	152	1.045	1.072	3,581	33
25 GAGNOA	78	11	53	131	1.055	1.110	3,465	38
26 OUME	25	3	17	42	1.062	1.108	3,389	12
27 SEGUELA	22	1	4	26	1.019	1.035	3,917	3
28 ISSIA	20	2	9	29	1.041	1.073	3,629	6
Subtotal	254	26	128	381				92
CENTER								
29 BOUAKE	336	54	262	598	1.082	1.122	3,183	171
30 YAMOUSSOUKRO	83	6	28	111	1.037	1.060	3,683	21
31 DIMBOKRO	71	14	68	139	1.072	1.145	3,286	46
32 KATIOLA	33	3	14	47	1.044	1.072	3,600	10
33 SINFRA	33	2	10	43	1.033	1.054	3,728	8
34 BOUAFLE	33	4	17	50	1.054	1.088	3,481	12
35 ARRAH	30	1	5	35	1.019	1.031	3,916	4
36 BONGOUANOU	28	2	9	37	1.027	1.057	3,803	7
37 TOUMODI	24	2	8	33	1.036	1.059	3,699	6
38 DAOLARO	23	1	7	30	1.028	1.051	3,799	5
39 SEITRA	21	2	8	29	1.043	1.069	3,610	[illegible]
40 BEOUMI	20	1	6	26	1.035	1.058	3,709	5
41 M'BAHIAKRO	19	1	6	25	1.034	1.055	3,723	4
42 M'BATTO	19	1	5	23	1.029	1.047	3,786	4
Subtotal	772	93	452	1,224				309
EAST								
43 BONDOUKOU	38	2	10	48	1.036	1.050	3,692	8
Subtotal	38	2	10	48				8
NORTH								
44 KORHOGO	86	8	41	127	1.042	1.081	3,621	30
45 FERKESSEDOUGOU	46	10	49	96	1.093	1.151	3,173	32
46 DIEMNE	25	1	4	29	1.017	1.034	3,944	4
47 BOUNDIALI	19	2	8	27	1.038	1.075	3,665	6
Subtotal	177	21	102	279				72
TOTALS	4,597	338	1,650	6,247				1,111

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1991-1995

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1995 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	127	660	3,701	1.033	1.040	3,019	383
2 GRAND BASSAM	8	40	121	1.063	1.083	3,509	27
3 ANYAMA	3	15	73	1.040	1.048	3,781	11
4 DIMBERVILLE	2	11	43	1.043	1.065	3,748	8
Subtotal	139	726	3,937				429
SOUTH							
5 DIVO	6	29	118	1.039	1.057	3,793	21
6 ABENGOUROU	7	36	120	1.045	1.075	3,719	26
7 AGBOVILLE	13	65	165	1.076	1.106	3,367	42
8 DAGOU	5	25	88	1.040	1.070	3,791	18
9 ADIOPE	5	24	81	1.043	1.072	3,743	17
10 BONOUA	5	25	72	1.046	1.088	3,715	18
11 ABOISSO	2	12	44	1.042	1.069	3,765	9
12 AGNIBILEKROU	5	28	70	1.064	1.108	3,498	19
13 LAKOTA	3	16	49	1.051	1.082	3,649	11
14 AFFERY	2	10	36	1.039	1.066	3,799	7
15 ANOUFE	3	14	42	1.052	1.084	3,625	10
16 MIKRE BATTA	1	7	30	1.034	1.059	3,857	6
17 TIASSALE	3	14	40	1.059	1.092	3,557	10
Subtotal	59	306	954				213
SOUTH WEST							
18 SAN PEDRO	28	147	348	1.074	1.116	3,383	95
19 SASSANDRA	2	10	34	1.043	1.070	3,743	7
Subtotal	30	157	382				102
WEST							
20 MAN	17	57	194	1.043	1.073	3,747	41
21 DANANE	3	14	54	1.040	1.063	3,763	10
22 DUEKOUE	2	12	43	1.037	1.067	3,825	9
23 GUIGLO	2	10	32	1.042	1.074	3,760	7
Subtotal	18	93	324				67
CENTER WEST							
24 SOLOA	13	68	220	1.051	1.076	3,650	47
25 GAGNOA	15	80	211	1.059	1.100	3,556	55
26 OUME	5	25	68	1.064	1.098	3,501	17
27 SEGUELA	1	7	33	1.025	1.046	3,979	5
28 ISSIA	3	13	42	1.048	1.078	3,692	9
Subtotal	37	193	574				133
CENTER							
29 BOUAKE	73	378	976	1.076	1.103	3,371	245
30 YAMOUSSOUKRO	8	42	153	1.044	1.067	3,740	30
31 DIMBOKRO	19	101	240	1.075	1.115	3,431	66
32 KATIOLA	4	21	68	1.050	1.077	3,666	15
33 SINFRA	3	15	58	1.040	1.063	3,784	11
34 BOUAFLE	5	26	75	1.058	1.087	3,569	18
35 ARRAH	1	8	42	1.025	1.041	3,979	6
36 BONGOUANOU	3	14	51	1.034	1.066	3,858	10
37 TOUMODI	2	12	45	1.042	1.067	3,757	9
38 DAOUKRO	2	10	40	1.035	1.061	3,854	8
39 SEKIRA	2	12	41	1.049	1.074	3,676	9
40 BEOUMI	2	10	36	1.042	1.066	3,766	7
41 M'BAHIAKRO	2	9	34	1.041	1.063	3,779	6
42 M'BATTO	1	7	31	1.036	1.057	3,841	5
Subtotal	128	665	1,890				445
EAST							
43 BONDOUKOU	3	16	64	1.043	1.059	3,751	11
Subtotal	3	16	64				11
NORTH							
44 KORHOGO	12	62	189	1.048	1.083	3,685	44
45 FERKESSEDOUGOU	13	70	167	1.076	1.116	3,364	45
46 ODIENNE	1	7	37	1.023	1.045	4,010	6
47 BOUNDIALI	2	12	39	1.045	1.079	3,726	9
Subtotal	29	152	431				104
TOTALS	443	2,308	8,555				1,506

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1996-2000

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	2000 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	223	800	4,501	1.0474	1.0399	2,707	603
2 GRAND BASSAM	9	31	151	1.0533	1.0464	2,894	25
3 AKYAKA	3	11	84	1.0351	1.0286	3,073	9
4 DINGERVILLE	2	8	51	1.0374	1.0367	3,050	7
Subtotal	237	850	4,787				645
SOUTH							
5 DIVO	6	21	139	1.0341	1.0326	3,082	18
6 ABENGOUROU	7	27	146	1.0394	1.0411	3,028	23
7 AGBOVILLE	14	51	216	1.0614	1.0555	2,817	40
8 BABOU	5	18	106	1.0343	1.0382	3,081	15
9 ADZOPE	5	17	99	1.0377	1.0398	3,046	15
10 BONOUA	5	18	90	1.0397	1.0464	3,025	15
11 ABOISSO	3	9	53	1.0362	1.0383	3,061	8
12 AGNIBILEKROU	6	22	91	1.0539	1.0557	2,887	17
13 LAKOTA	3	12	60	1.0442	1.0451	2,981	10
14 AFFERY	2	7	43	1.0338	1.0365	3,086	6
15 AKOUPE	3	11	53	1.0452	1.0459	2,971	9
16 MIRAE MATTA	1	5	35	1.0295	1.0325	3,132	5
17 TIASSALE	3	11	51	1.0503	1.0496	2,922	9
Subtotal	64	229	1,182				190
SOUTH WEST							
18 SAN PEDRO	32	115	463	1.0506	1.0587	2,825	90
19 SASSANDRA	2	7	41	1.0377	1.0392	3,046	6
Subtotal	34	122	504				96
WEST							
20 MAN	12	42	237	1.0375	1.0401	3,049	36
21 DANANE	3	10	64	1.0349	1.0356	3,074	9
22 DUEKOUE	2	8	51	1.0318	1.0353	3,106	7
23 GUIGLO	2	7	40	1.0366	1.0405	3,058	6
Subtotal	19	66	392				58
CENTER WEST							
24 DALOA	14	51	271	1.0441	1.0426	2,982	42
25 GAGNOA	17	62	273	1.0503	1.0525	2,922	50
26 OUME	5	20	97	1.0538	1.0522	2,885	16
27 SEGUELA	1	4	37	1.0203	1.0240	3,229	4
28 ISSIA	3	10	52	1.0413	1.0427	3,009	8
Subtotal	41	146	720				120
CENTER							
29 BOUAKE	82	296	1,272	1.0613	1.0544	2,819	232
30 YAMOUSSOUKRO	9	31	184	1.0379	1.0378	3,044	26
31 DIMBOKRO	22	78	318	1.0578	1.0583	2,850	62
32 KATIOLA	4	16	84	1.0431	1.0426	2,992	13
33 SINFRA	3	11	69	1.0349	1.0352	3,076	9
34 BOUAFLE	6	20	95	1.0495	1.0477	2,930	16
35 ARRAH	1	5	47	1.0203	1.0220	3,230	4
36 BONGOUANOU	3	10	61	1.0294	1.0353	3,133	8
37 TOUMODI	3	9	54	1.0368	1.0374	3,055	8
38 DAOUKRO	2	7	47	1.0298	1.0332	3,128	6
39 SEKIRA	3	9	50	1.0424	1.0415	2,998	8
40 BEOUMI	2	7	43	1.0362	1.0371	3,062	6
41 M'BAHIAKRO	2	6	43	1.0352	1.0357	3,072	6
42 M'BATTO	1	5	26	1.0308	1.0317	3,118	4
Subtotal	142	511	2,401				410
EAST							
43 BONDOUKOU	3	12	76	1.0372	1.0340	3,050	10
Subtotal	3	12	76				10
NORTH							
44 KORHOGO	13	47	236	1.0418	1.0451	3,005	39
45 FERKESSEDOUGOU	15	55	222	1.0616	1.0587	2,816	43
46 ODIENNE	1	4	41	1.0279	1.0227	3,257	4
47 BOUNDIALI	3	9	48	1.0390	1.0429	3,032	8
Subtotal	32	115	546				94
	572	2,053	10,608				1,623

IVORY COAST
ALTERNATE A1/ICM07
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	29,482	0	24,175	53,657	19,389
SOUTH	2,613	0	6,757	9,370	17,159
SOUTH WEST	1,438	0	3,944	5,381	31,386
WEST	950	0	2,438	3,387	16,955
CENTER WEST	1,821	0	4,695	6,516	20,521
CENTER	5,774	0	15,496	21,270	21,310
EAST	112	0	366	478	11,141
NORTH	1,799	0	3,648	5,047	22,139
TOTALS	43,588	0	61,516	105,110	19,386

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	67.64	0.00	39.30	51.05
SOUTH	5.99	0.00	10.99	8.91
SOUTH WEST	3.30	0.00	6.41	5.12
WEST	2.18	0.00	3.96	3.22
CENTER WEST	4.18	0.00	7.63	6.20
CENTER	13.25	0.00	25.19	20.24
EAST	.26	0.00	.60	.45
NORTH	4.13	0.00	5.93	4.80

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	1,623	9,251	13,375	1,363	0	1,915	0	4,693	11,647	6,157	27,477	22,497	49,974	18,039
2 GRAND BASSAM	45	464	464	68	0	81	0	163	490	309	1,142	962	2,105	31,089
3 ANYAMA	24	173	254	25	0	36	0	89	220	115	513	424	937	17,861
4 BINGERVILLE	19	131	156	19	0	25	0	55	150	87	350	292	642	23,378
Subtotal	1,732	10,019	14,199	1,476	0	2,056	0	5,001	12,507	6,668	29,482	24,175	53,657	18,389
SOUTH														
5 DIVO	35	0	320	0	0	0	0	154	401	223	355	777	1,133	14,118
6 ABENGOUROU	45	0	338	0	0	0	0	162	465	283	383	910	1,293	18,050
7 AGBOVILLE	83	0	496	0	0	0	0	238	783	526	580	1,548	2,128	27,677
8 DABOU	30	0	237	0	0	0	0	114	319	190	267	622	889	16,383
9 ADIOPE	22	0	130	0	0	0	0	106	301	57	152	465	617	12,430
10 BONOUA	30	0	202	0	0	0	0	97	295	188	232	580	812	20,828
11 ABOISSO	12	0	68	0	0	0	0	57	159	30	79	245	325	11,908
12 AGNIBILEKROU	29	0	166	0	0	0	0	105	745	73	195	523	718	22,211
13 LAKOTA	15	0	90	0	0	0	0	67	199	39	105	306	411	14,985
14 AFFERY	9	0	55	0	0	0	0	48	131	24	65	203	268	11,649
15 AKOUPE	14	0	80	0	0	0	0	59	176	35	93	270	364	15,381
16 MIPPE MATTA	2	0	10	0	0	0	0	9	24	4	1[illegible]	38	49	2,467
17 TIASSALE	14	0	81	0	0	0	0	57	174	36	95	268	364	17,275
Subtotal	340	0	2,273	0	0	0	0	1,272	3,775	1,709	2,613	6,757	9,370	17,150
SOUTH WEST														
18 SAN PEDRO	204	0	1,167	0	0	0	0	560	1,890	1,292	1,372	3,742	5,113	33,939
19 SASSANDRA	10	0	56	0	0	0	0	46	131	25	66	202	268	12,878
Subtotal	214	0	1,224	0	0	0	0	607	2,021	1,316	1,438	3,944	5,381	31,386
WEST														
20 MAN	80	0	614	0	0	0	0	295	838	505	694	1,637	2,331	19,737
21 DANANE	15	0	90	0	0	0	0	80	217	40	105	336	441	12,592
22 DUEKOUE	12	0	70	0	0	0	0	60	167	31	82	258	340	12,537
23 GUIGLO	10	0	58	0	0	0	0	47	134	26	68	206	275	14,100
Subtotal	118	0	832	0	0	0	0	482	1,355	601	950	2,438	3,387	16,955
CENTER WEST														
24 DALOA	90	0	667	0	0	0	0	320	928	569	757	1,817	2,574	19,785
25 GAGNOA	104	0	652	[illegible]	0	0	0	313	997	656	756	1,966	2,722	26,020
26 OUME	25	0	146	[illegible]	0	0	0	97	309	64	171	470	641	18,914
27 SEGUELA	7	0	38	0	0	0	0	44	105	17	45	165	210	8,682
28 ISSIA	14	0	79	0	0	0	0	62	179	35	93	276	369	14,910
Subtotal	239	0	1,582	0	0	0	0	835	2,518	1,341	1,821	4,695	6,516	20,521
CENTER														
29 BOUAKE	509	0	3,087	0	0	0	0	1,481	4,818	3,215	3,596	9,514	13,109	20,066
30 YAMOUSSOUKRO	54	0	437	0	0	0	0	210	580	341	491	1,131	1,622	16,775
31 DIMBOKRO	122	0	587	0	0	0	0	358	1,202	259	709	1,819	2,528	24,113
32 KATIOLA	22	0	127	0	0	0	0	100	289	56	149	445	594	14,711
33 SINFRA	19	0	87	0	0	0	0	79	212	38	107	329	435	11,470
34 BOUAFLE	25	0	147	0	0	0	0	106	322	65	172	492	664	16,135
35 ARRAH	7	0	42	0	0	0	0	52	120	18	49	190	239	7,440
36 BONGOUANOU	13	0	77	0	0	0	0	68	185	34	90	286	377	11,488
37 TOUMODI	15	0	70	0	0	0	0	60	165	31	85	255	340	11,952
38 DAOUKRO	10	0	57	0	0	0	0	52	139	25	66	216	282	10,620
39 SEITRA	12	0	71	0	0	0	0	57	164	31	84	252	336	13,682
40 BECHIMI	10	0	58	0	0	0	0	51	139	26	69	215	284	12,504
41 M'BAHIAKRO	9	0	51	0	0	0	0	46	124	23	60	192	252	11,522
42 M'BATTO	7	0	41	0	0	0	0	40	103	18	48	160	208	9,968
Subtotal	835	0	4,940	0	0	0	0	2,757	8,559	4,180	5,774	15,496	21,270	21,310
EAST														
43 BONDOUKOU	16	0	95	0	0	0	0	89	235	42	112	366	478	11,141
Subtotal	16	0	95	0	0	0	0	89	235	42	112	366	478	11,141
NORTH														
44 KORHOGO	87	0	612	0	0	0	0	293	877	550	699	1,721	2,419	22,805
45 FERKESSEDOUGOU	81	0	470	0	0	0	0	283	958	207	551	1,448	1,999	27,729
46 ODIENNE	8	0	45	0	0	0	0	53	126	20	53	199	252	9,24[illegible]
47 BOUNDIALI	14	0	81	0	0	0	0	62	183	36	95	281	376	16,694
Subtotal	189	0	1,298	0	0	0	0	693	2,143	813	1,398	3,649	5,047	22,139
TOTALS	3,683	10,019	26,351	1,476	0	2,056	0	11,737	33,117	16,671	43,588	61,516	105,110	19,386

Source: PADCO analysis

IVORY COAST
ALTERNATE A1/ICM07
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	34,600	0	29,899	64,499	18,050
SOUTH	3,635	0	10,107	13,742	17,162
SOUTH WEST	1,981	0	5,875	7,856	25,877
WEST	1,320	0	3,651	4,972	17,952
CENTER WEST	2,521	0	7,068	9,589	20,073
CENTER	8,035	0	22,974	31,009	19,916
EAST	171	0	536	707	12,599
NORTH	1,974	0	5,485	7,459	20,998
TOTALS	54,235	0	85,598	139,850	18,857

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	63.80	0.00	34.93	46.12
SOUTH	6.70	0.00	11.81	9.83
SOUTH WEST	3.65	0.00	6.86	5.62
WEST	2.43	0.00	4.27	3.55
CENTER WEST	4.65	0.00	8.26	6.86
CENTER	14.82	0.00	26.84	22.17
EAST	.32	0.00	.63	.51
NORTH	3.64	0.00	6.41	5.33

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	1,979	11,283	14,647	1,663	0	2,214	0	5,715	14,194	7,509	31,786	27,418	59,204	17,564
2 GRAND BASSAM	97	691	612	102	0	114	0	243	730	460	1,615	1,433	3,048	30,241
3 AKYAKA	37	265	314	39	0	50	0	121	316	176	705	614	1,319	20,293
4 BINGERVILLE	28	200	201	30	0	35	0	79	222	133	494	434	929	25,121
Subtotal	2,143	12,439	15,774	1,833	0	2,413	0	6,158	15,462	8,278	34,600	29,899	64,499	18,050
SOUTH														
5 DIVO	54	0	406	0	0	0	0	215	588	343	460	1,146	1,606	15,451
6 ABENGOUROU	68	0	444	0	0	0	0	239	698	431	513	1,369	1,891	18,528
7 AGBOVILLE	120	0	664	0	0	0	0	366	1,159	759	784	2,285	3,069	23,202
8 DABOU	46	0	310	0	0	0	0	166	478	291	356	935	1,291	17,215
9 ADZOPE	34	0	199	0	0	0	0	156	451	88	233	694	927	13,276
10 BONDOUA	45	0	273	0	0	0	0	148	450	286	318	884	1,202	20,244
11 ABOISSO	18	0	104	0	0	0	0	83	257	46	121	365	487	12,970
12 AGNIBILEKROU	42	0	247	0	0	0	0	145	524	109	289	798	1,087	19,508
13 LAKOTA	23	0	135	0	0	0	0	100	300	60	159	460	619	15,262
14 AFFERY	15	0	85	0	0	0	0	69	196	37	99	303	402	12,902
15 AKOUPE	21	0	121	0	0	0	0	88	266	53	141	408	549	15,547
16 HIRRE WATTA	3	0	15	0	0	0	0	13	36	7	18	56	74	2,818
17 TIASSALE	21	0	122	0	0	0	0	86	265	54	143	405	548	16,666
Subtotal	511	0	3,124	0	0	0	0	1,894	5,650	2,564	3,635	10,107	13,742	17,162
SOUTH WEST														
18 SAN PEDRO	296	0	1,584	0	0	0	0	877	2,825	1,872	1,881	5,574	7,455	27,129
19 SASSANDRA	15	0	86	0	0	0	0	68	196	38	100	301	401	13,933
Subtotal	311	0	1,670	0	0	0	0	945	3,020	1,910	1,981	5,875	7,856	25,877
WEST														
20 MAN	122	0	805	0	0	0	0	432	1,256	772	927	2,460	3,387	20,449
21 DANANE	24	0	138	0	0	0	0	114	322	61	162	497	659	14,044
22 GUEKOUE	19	0	108	0	0	0	0	88	250	48	127	385	512	13,877
23 GUIGLO	15	0	89	0	0	0	0	69	202	39	105	310	415	15,046
Subtotal	180	0	1,141	0	0	0	0	703	2,029	919	1,320	3,651	4,972	17,952
CENTER WEST														
24 DALOA	136	0	877	0	0	0	0	472	1,389	861	1,013	2,722	3,735	20,059
25 GAGNOA	155	0	886	0	0	0	0	484	1,514	982	1,041	2,981	4,022	23,481
26 OUME	37	0	217	0	0	0	0	150	466	95	254	711	965	17,543
27 SEGUELA	10	0	61	0	0	0	0	60	154	27	71	240	312	10,529
28 ISSIA	21	0	121	0	0	0	0	91	270	53	141	415	556	15,593
Subtotal	360	0	2,161	0	0	0	0	1,257	3,792	2,019	2,521	7,068	9,589	20,073
CENTER														
29 BOUAKE	735	0	4,113	0	0	0	0	2,264	7,122	4,644	4,847	14,029	18,876	23,991
30 YAMOUSOUKRO	82	0	566	0	0	0	0	302	862	521	648	1,684	2,332	17,702
31 DIMBOKRO	181	0	862	0	0	0	0	564	1,814	380	1,043	2,758	3,801	20,373
32 KATIOLA	33	0	193	0	0	0	0	147	433	85	226	665	891	15,402
33 SINFRA	29	0	134	0	0	0	0	112	314	59	163	485	648	12,331
34 BOUAFLE	38	0	220	0	0	0	0	159	484	97	258	740	998	15,954
35 ARRAH	11	0	67	0	0	0	0	69	174	29	78	272	350	9,112
36 BONGOUANOU	21	0	120	0	0	0	0	98	277	53	140	428	568	12,930
37 TOUMODI	23	0	107	0	0	0	0	86	246	47	130	379	508	13,132
38 DAOUKRO	15	0	88	0	0	0	0	74	207	39	103	319	422	12,062
39 SEIZRA	19	0	108	0	0	0	0	84	245	48	127	377	504	14,500
40 BECUNI	15	0	89	0	0	0	0	73	207	39	105	319	424	13,771
41 M'BAHIAKRO	14	0	79	0	0	0	0	65	184	35	92	284	376	12,951
42 M'BATTO	11	0	63	0	0	0	0	55	151	28	74	235	309	11,452
Subtotal	1,227	0	6,808	0	0	0	0	4,154	12,719	6,103	8,035	22,974	31,009	19,916
EAST														
43 BONDOUKOU	25	0	146	0	0	0	0	125	346	64	171	536	707	12,599
Subtotal	25	0	146	0	0	0	0	125	346	54	171	536	707	12,599
NORTH														
44 KORHOGO	132	0	817	0	0	0	0	442	1,328	837	950	2,606	3,556	22,544
45 FERKESSEDOUGOU	116	0	677	0	0	0	0	442	1,423	298	793	2,163	2,957	22,470
46 ODIENNE	13	0	73	0	0	0	0	72	186	32	86	291	376	11,258
47 BOUNDIALI	21	0	124	0	0	0	0	93	277	55	145	425	570	17,386
Subtotal	282	0	1,692	0	0	0	0	1,050	3,213	1,222	1,974	5,435	7,459	20,998
TOTALS	5,038	12,439	32,517	1,833	0	2,413	0	16,283	46,234	23,080	54,235	85,598	139,850	18,897

Source: PADCO analysis

IVORY COAST
ALTERNATE A1/ICM07
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	37,919	0	34,079	71,998	16,507
SOUTH	2,789	0	8,376	11,164	10,453
SOUTH WEST	1,563	0	4,985	6,548	14,783
WEST	995	0	2,966	3,961	11,075
CENTER WEST	1,957	0	5,896	7,853	12,176
CENTER	6,266	0	19,403	25,669	11,966
EAST	125	0	444	569	8,141
NORTH	1,514	0	4,590	6,104	12,486
TOTALS	53,125	0	80,740	133,860	13,971

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

(- Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	71.38	0.00	42.21	53.79
SOUTH	5.25	0.00	10.37	8.34
SOUTH WEST	2.94	0.00	6.17	4.89
WEST	1.87	0.00	3.67	2.96
CENTER WEST	3.68	0.00	7.30	5.87
CENTER	11.80	0.00	24.03	19.18
EAST	.24	0.00	.55	.42
NORTH	2.85	0.00	5.69	4.56

Source: PADCO computer analysis

IVORY COAST
ALTERNATE A1/ICM07
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	2,400	13,680	15,164	2,016	0	2,489	0	6,400	16,519	9,104	35,749	32,023	67,772	16,527
2 GRAND BASSAM	75	536	488	79	0	89	0	231	622	357	1,268	1,210	2,477	18,221
3 ANYAMA	27	192	246	28	0	37	0	109	257	127	530	494	1,024	13,112
4 BINGERVILLE	21	147	156	22	0	26	0	72	182	98	372	352	724	15,425
Subtotal	2,523	14,555	16,054	2,145	0	2,642	0	6,813	17,580	9,686	37,919	34,079	71,998	16,507
SOUTH														
5 DIVO	39	0	314	0	0	0	0	194	475	246	353	915	1,268	9,860
6 APENGOUPOU	51	0	344	0	0	0	0	221	574	319	395	1,114	1,509	11,351
7 AGBOVILLE	94	0	528	0	0	0	0	353	994	594	622	1,941	2,563	13,449
8 DABOU	33	0	237	0	0	0	0	151	385	209	270	745	1,015	10,515
9 ADZOPE	25	0	146	0	0	0	0	143	369	64	171	576	747	8,301
10 BONOUA	34	0	210	0	0	0	0	137	369	212	244	719	963	11,903
11 ABOISSO	13	0	75	0	0	0	0	76	193	33	98	302	393	8,077
12 AGNIBILEKROU	33	0	191	0	0	0	0	158	446	84	274	688	913	11,330
13 LAKOTA	18	0	102	0	0	0	0	94	251	45	120	390	510	9,370
14 AFFERY	10	0	61	0	0	0	0	63	158	27	71	247	318	8,027
15 AKOUPE	16	0	91	0	0	0	0	83	223	40	107	346	453	9,508
16 MIRRE WATTA	2	0	11	0	0	0	0	12	28	5	12	45	57	7,761
17 TIASSALE	16	0	94	0	0	0	0	82	225	41	110	348	458	10,079
Subtotal	383	0	2,405	0	0	0	0	1,767	4,689	1,921	2,798	8,376	11,164	10,453
SOUTH WEST														
18 SAN PEDRO	232	0	1,258	0	0	0	0	849	2,422	1,465	1,489	4,735	6,225	15,343
19 SASSANDRA	11	0	63	0	0	0	0	62	160	28	74	250	324	8,689
Subtotal	243	0	1,320	0	0	0	0	911	2,582	1,493	1,563	4,985	6,548	14,783
WEST														
20 MAN	90	0	622	0	0	0	0	397	1,027	567	712	1,991	2,703	12,544
21 DANANE	17	0	99	0	0	0	0	104	260	44	117	408	524	8,859
22 DUEKOUE	13	0	76	0	0	0	0	79	199	34	90	311	401	8,537
23 GUIBLO	11	0	65	0	0	0	0	63	164	29	76	256	333	9,241
Subtotal	131	0	863	0	0	0	0	644	1,650	673	995	2,966	3,961	11,075
CENTER WEST														
24 DALOA	103	0	689	0	0	0	0	441	1,159	650	792	2,251	3,043	12,396
25 GAGNOA	120	0	698	0	0	0	0	462	1,282	757	818	2,502	3,320	13,715
26 OUME	29	0	168	0	0	0	0	143	397	74	197	615	812	10,483
27 SEGUELA	7	0	38	0	0	0	0	51	114	17	45	181	226	6,446
28 ISSIA	15	0	90	0	0	0	0	85	223	40	105	348	453	9,609
Subtotal	274	0	1,683	0	0	0	0	1,182	3,176	1,538	1,957	5,896	7,853	12,136
CENTER														
29 BOUAKE	575	0	3,279	0	0	0	0	2,182	6,111	3,637	3,854	11,929	15,783	14,046
30 YAMOUSSOUKRO	61	0	439	0	0	0	0	278	725	383	500	1,366	1,865	11,070
31 DIMBOKRO	148	0	673	0	0	0	0	545	1,552	297	821	2,393	3,214	11,527
32 KATIOLA	25	0	145	0	0	0	0	137	360	64	170	561	731	9,584
33 SINFRA	23	0	97	0	0	0	0	102	254	43	119	398	518	8,147
34 BOUAFLE	29	0	170	0	0	0	0	151	409	75	199	635	834	9,775
35 ARRAH	7	0	42	0	0	0	0	59	129	18	49	207	255	5,711
36 BONGOUANOU	14	0	83	0	0	0	0	87	218	37	97	342	440	7,834
37 TOUMODI	18	0	78	0	0	0	0	79	200	34	96	313	409	8,270
38 DAOUKRO	10	0	61	0	0	0	0	66	163	27	71	256	327	7,201
39 SEIBRA	14	0	81	0	0	0	0	78	203	36	95	317	412	9,064
40 BEOUMI	11	0	65	0	0	0	0	66	166	29	76	263	340	8,659
41 M'BAHIAKRO	10	0	57	0	0	0	0	60	149	25	67	234	301	8,125
42 M'BATTO	8	0	44	0	0	0	0	50	120	20	52	189	241	7,268
Subtotal	953	0	5,314	0	0	0	0	3,940	10,741	4,723	6,256	19,403	25,669	11,966
EAST														
43 BONDOUKOU	18	0	107	0	0	0	0	114	283	47	125	444	569	8,141
Subtotal	18	0	107	0	0	0	0	114	283	47	125	444	569	8,141
NORTH														
44 KORHOGO	99	0	635	0	0	0	0	412	1,100	626	734	2,139	2,873	13,539
45 FERKESSEDOUGOU	91	0	530	0	0	0	0	428	1,221	234	621	1,883	2,504	12,896
46 ODIENNE	9	0	44	0	0	0	0	61	134	19	51	215	266	6,832
47 BOUNDIALI	16	0	91	0	0	0	0	86	227	40	107	353	460	10,586
Subtotal	213	0	1,301	0	0	0	0	987	2,683	920	1,514	4,590	6,104	12,486
TOTALS	4,738	14,555	29,045	2,145	0	2,642	0	16,357	43,383	21,001	53,125	80,740	133,860	13,971

Source: PADCO analysis

ALTERNATE B

SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT

INTRA-URBAN INFRASTRUCTURE COSTS

IVORY COAST
SUMMARY OF
ALTERNATE B/ICM06
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (000s)	1990 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	1995 POPUL-ATION (000s)	TOTAL COSTS (Bill-ions)	2000 POPUL-ATION (000s)	TOTAL TOTAL Bill-ions)
GREATER ABIDJAN	2,625	3,533	411	4,802	474	5,923	490
SOUTH	445	566	56	735	65	895	72
SOUTH WEST	118	212	41	339	46	448	47
WEST	169	194	12	230	15	268	18
CENTER WEST	254	338	40	458	46	588	49
CENTER	772	1,121	153	1,599	175	2,018	182
EAST	38	42	2	49	3	56	3
NORTH	177	248	32	346	37	434	39
TOTALS	4,597	6,254	747	8,559	860	10,611	900

MARGINAL COSTS 1986-1990= 3,478
MARGINAL COSTS 1991-1995= 3,490
MARGINAL COSTS 1996-2000= 2,965

IVORY COAST
PERCENT DISTRIBUTION OF
SETTLEMENT POPULATION PROJECTIONS
AND DIRECT INVESTMENT
DURING 1985-2000

REGION	1985 POPUL-ATION (%)	1990 POPUL-ATION (%)	TOTAL COSTS (%)	1995 POPUL-ATION (%)	TOTAL COSTS (%)	2000 POPUL-ATION (%)	TOTAL COSTS (%)
GREATER ABIDJAN	57.1	56.5	55.0	56.1	55.1	55.8	54.5
SOUTH	9.7	9.0	7.5	8.6	7.6	8.4	8.0
SOUTH WEST	2.6	3.4	5.4	4.0	5.4	4.2	5.2
WEST	3.7	3.1	1.7	2.7	1.7	2.5	2.0
CENTER WEST	5.5	5.4	5.3	5.4	5.4	5.4	5.5
CENTER	16.8	17.9	20.5	18.7	20.4	19.0	20.2
EAST	.8	.7	.3	.6	.3	.5	.4
NORTH	3.8	4.0	4.3	4.0	4.3	4.1	4.3

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IVORY COAST
ALTERNATE B/ICM06
SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1985-1990

SETTLEMENTS	1985 POPULATION (000s)	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1990 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN								
1 ABIDJAN	2,500	131	879	3,379	1.039	1.062	3,046	398
2 GRAND BASSAM	54	3	21	75	1.036	1.067	3,074	10
3 ANYAMA	48	1	4	51	1.010	1.015	3,366	2
4 DINGERVILLE	24		3	27	1.012	1.027	3,335	2
Subtotal	2,625	135	907	3,533				411
SOUTH								
5 DIVO	71	1	6	77	1.009	1.018	3,379	3
6 ABEMBOUROU	60	2	12	72	1.015	1.037	3,307	6
7 AGBOVILLE	54	6	41	96	1.057	1.120	2,871	18
8 DABOU	46	1	6	52	1.009	1.023	3,376	3
9 ADZOPE	42	1	7	49	1.013	1.032	3,331	3
10 BONOUA	31	1	8	39	1.015	1.048	3,302	4
11 ABOISSO	23		3	27	1.011	1.027	3,351	2
12 AGNIBILEKROU	23	2	15	38	1.038	1.106	3,060	7
13 LAKOTA	22	1	6	29	1.021	1.052	3,235	3
14 AFFERY	20		2	22	1.008	1.021	3,383	1
15 AKOUPE	19	1	5	25	1.023	1.056	3,220	3
16 HIRRE MATTA	18		1	18	1.004	1.009	3,436	
17 TIASSALE	16	1	7	23	1.031	1.074	3,133	3
Subtotal	445	18	121	566				56
SOUTH WEST								
18 SAN PEDRO	100	14	91	191	1.054	1.138	2,896	39
19 SASSANDRA	18		3	20	1.013	1.031	3,331	1
Subtotal	118	14	94	212				41
WEST								
20 MAN	99	2	17	116	1.012	1.032	3,335	8
21 DANANE	30	1	3	34	1.009	1.022	3,368	2
22 DUEKOUE	23		2	25	1.006	1.017	3,408	1
23 GUIGLO	16		3	19	1.011	1.031	3,346	1
Subtotal	169	4	25	194				12
CENTER WEST								
24 DALOA	108	4	27	135	1.021	1.046	3,237	13
25 GAGNOA	78	6	39	117	1.031	1.085	3,131	18
26 OUME	25	2	13	39	1.037	1.089	3,063	6
27 SEGUELA	22	0	0	22	1.000	1.000	3,611	0
28 ISSIA	20	1	5	25	1.017	1.043	3,280	2
Subtotal	254	13	84	338				40
CENTER								
29 BOUAKE	336	35	238	574	1.056	1.113	2,877	101
30 YAMOUSOUKRO	83	2	13	95	1.013	1.029	3,328	6
31 DIMBOKRO	71	9	59	129	1.047	1.129	2,971	26
32 KATIOLA	33	1	8	42	1.020	1.045	3,253	4
33 SINFRA	33	1	4	37	1.009	1.021	3,369	2
34 BOUAFLE	33	2	12	45	1.029	1.066	3,147	6
35 ARRAH	30	0	0	30	1.000	1.000	3,612	0
36 BONGOUANOU	28		1	30	1.003	1.010	3,437	1
37 TOUMODI	24	1	3	28	1.012	1.027	3,343	2
38 DAOUKRO	23		1	24	1.004	1.010	3,432	1
39 SEIZRA	21	1	5	25	1.019	1.042	3,262	2
40 BEOUMI	20		3	22	1.011	1.025	3,352	1
41 M'BAHIAKRO	19		2	21	1.010	1.022	3,364	1
42 M'BATTO	19		1	20	1.005	1.011	3,421	1
Subtotal	772	52	350	1,121				153
EAST								
43 BONDOUKOU	38	1	5	42	1.012	1.023	3,337	2
Subtotal	38	1	5	42				2
NORTH								
44 KORHOGO	86	3	23	108	1.018	1.049	3,273	11
45 FERKESSEDOUGOU	48	7	45	92	1.059	1.141	2,968	19
46 ODIENNE	25	0	0	25	1.000	1.000	3,668	0
47 BOUNDIALI	19	1	4	22	1.014	1.039	3,312	2
Subtotal	177	11	71	248				32
TOTALS	4,597	246	1,657	6,254				747

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SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1991-1995

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	1995 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	149	1,230	4,610	1.037	1.064	3,078	459
2 GRAND BASSAM	4	29	105	1.035	1.068	3,099	11
3 ANYAMA	1	5	57	1.011	1.020	3,363	2
4 BINGERVILLE	1	5	32	1.014	1.033	3,331	2
Subtotal	154	1,270	4,802				474
SOUTH							
5 DIVO	1	9	87	1.010	1.023	3,376	4
6 ABENGOUROU	2	17	89	1.016	1.044	3,303	7
7 AGBOVILLE	7	56	151	1.048	1.096	2,966	20
8 DABOU	1	8	60	1.010	1.030	3,373	3
9 ADZOPE	1	10	59	1.014	1.039	3,326	4
10 BONOUA	1	12	51	1.017	1.054	3,299	5
11 ABOISSO	1	5	31	1.012	1.034	3,348	2
12 AGNIBILEKROU	3	21	59	1.036	1.092	3,088	8
13 LAKOTA	1	9	38	1.022	1.057	3,235	4
14 AFFERY		3	25	1.009	1.027	3,380	1
15 AKOUPE	1	8	33	1.024	1.060	3,220	3
16 HIRAE MATTA		1	20	1.004	1.013	3,439	1
17 TIASSALE	1	10	33	1.031	1.073	3,145	4
Subtotal	21	170	735				65
SOUTH WEST							
18 SAN PEDRO	15	123	314	1.047	1.105	2,980	44
19 SASSANDRA	1	4	25	1.014	1.038	3,326	2
Subtotal	15	127	339				46
WEST							
20 MAN	3	24	140	1.014	1.039	3,331	10
21 DANANE	1	5	39	1.011	1.028	3,366	2
22 DUEKOUE		3	23	1.007	1.023	3,408	1
23 GUIGLO		4	23	1.013	1.038	3,343	2
Subtotal	4	36	230				15
CENTER WEST							
24 BALOA	5	39	174	1.022	1.052	3,236	15
25 BAGNOA	7	55	172	1.031	1.081	3,144	21
26 OUME	2	19	58	1.036	1.083	3,091	7
27 SEGUELA	0	0	22	1.000	1.000	3,637	0
28 ISSIA	1	7	32	1.019	1.049	3,276	2
Subtotal	15	120	458				46
CENTER							
29 BOUAKE	39	320	894	1.048	1.093	2,969	115
30 YAMOUSOUKRO	2	18	114	1.014	1.036	3,325	7
31 DIMBOKRO	[illegible]	81	210	1.042	1.102	3,026	30
32 KATIOLA	1	12	53	1.021	1.051	3,251	5
33 SINFRA	1	5	42	1.011	1.027	3,367	2
34 BOUAFLE	2	17	62	1.030	1.068	3,157	7
35 ARRAH	0	0	30	1.000	1.000	3,638	0
36 BONGOUANOU		2	32	1.004	1.015	3,440	1
37 TOUMODI	1	5	33	1.013	1.034	3,340	2
38 DAOUKRO		2	26	1.005	1.014	3,435	1
39 SEIZRA	1	7	32	1.020	1.048	3,260	3
40 BEOUNI		4	26	1.012	1.032	3,349	2
41 M'BAHIAKRO		3	24	1.011	1.029	3,362	1
42 M'BATTO		2	21	1.006	1.016	3,422	1
Subtotal	58	478	1,599				175
EAST							
43 BONDOUKOU	1	7	49	1.013	1.029	3,333	3
Subtotal	1	7	49				3
NORTH							
44 KORHOGO	4	33	141	1.019	1.055	3,270	13
45 FERKESSEDOUGOU	7	60	152	1.048	1.105	2,964	21
46 ODIENNE	0	0	25	1.000	1.000	3,703	0
47 BOUNDIALI	1	6	28	1.016	1.046	3,309	2
Subtotal	12	98	346				37
TOTALS	279	2,306	8,559				860

SETTLEMENT POPULATION PROJECTIONS AND DIRECT INVESTMENT DURING 1996-2000

SETTLEMENTS	CHANGE IN EMPLOYMENT (000s)	CHANGE IN POPULATION (000s)	2000 POPULATION (000s)	GROWTH RATES EMPLOYMENT (%)	GROWTH RATES POPULATION (%)	AVERAGE COST/JOB	TOTAL COSTS (Billions)
GREATER ABIDJAN							
1 ABIDJAN	189	1,084	5,693	1.0389	1.0431	2,511	474
2 GRAND BASSAM	5	26	130	1.0374	1.0454	2,524	11
3 ANYAMA	1	6	62	1.0137	1.0198	2,714	3
4 DINGEAVILLE	1	5	37	1.0186	1.0295	2,689	2
Subtotal	195	1,120	5,923				490
SOUTH							
5 DIVO	2	10	97	1.0146	1.0230	2,725	5
6 ABENGOUROU	3	17	106	1.0210	1.0356	2,666	8
7 AGBOVILLE	8	47	198	1.0444	1.0556	2,449	20
8 DABOU	2	9	69	1.0148	1.0290	2,723	4
9 ADZOPE	2	10	70	1.0190	1.0332	2,685	5
10 BONOUA	2	12	63	1.0214	1.0423	2,662	5
11 ABOISSO	1	5	36	1.0171	1.0305	2,701	2
12 AGNIBILEKROU	3	19	77	1.0387	1.0564	2,517	8
13 LAKOTA	2	9	46	1.0268	1.0422	2,615	4
14 AFFERY	1	4	29	1.0142	1.0267	2,729	2
15 AKOUPE	1	8	41	1.0280	1.0435	2,605	4
16 MIRRE NATTA		2	21	1.0078	1.0179	2,779	1
17 TIASSALE	2	9	42	1.0339	1.0487	2,553	4
Subtotal	28	160	895				72
SOUTH WEST							
18 SAN PEDRO	18	105	419	1.0455	1.0591	2,456	45
19 SASSANDRA	1	4	29	1.0190	1.0325	2,685	2
Subtotal	19	109	448				47
WEST							
20 MAN	4	25	165	1.0186	1.0332	2,687	12
21 DANANE	1	5	44	1.0156	1.0267	2,717	3
22 TOUKOUE	1	4	32	1.0118	1.0246	2,752	2
23 GUIBLO	1	4	27	1.0176	1.0333	2,698	2
Subtotal	7	38	268				18
CENTER WEST							
24 DALOA	6	37	211	1.0267	1.0393	2,616	17
25 GAGNOA	9	50	222	1.0340	1.0524	2,553	22
26 OUME	3	17	74	1.0380	1.0522	2,519	7
27 SEGUELA	0	0	22	1.0000	1.0000	2,912	0
28 ISSIA	1	7	39	1.0233	1.0383	2,645	3
Subtotal	19	110	568				49
CENTER							
29 BOUAKE	47	270	1,164	1.0467	1.0543	2,451	115
30 YAMOUSOUKRO	3	19	133	1.0192	1.0310	2,683	9
31 DIMBOKRO	12	70	280	1.0425	1.0590	2,481	30
32 KATIOLA	2	11	65	1.0255	1.0389	2,627	5
33 SINFRA	1	6	48	1.0155	1.0262	2,717	3
34 BOUAFLE	3	16	78	1.0339	1.0463	2,561	7
35 ARRAH	0	0	30	1.0000	1.0000	2,913	0
36 BONGOUANOU	1	3	35	1.0087	1.0203	2,780	2
37 TOUMODI	1	5	38	1.0178	1.0298	2,695	2
38 DAOUKRO		3	29	1.0093	1.0191	2,776	1
39 SEIZRA	1	6	38	1.0247	1.0374	2,634	3
40 BEOUMI	1	4	30	1.0171	1.0291	2,702	2
41 M'BAHIAKRO	1	3	28	1.0160	1.0270	2,713	2
42 M'BATTO		2	23	1.0104	1.0188	2,764	1
Subtotal	73	419	2,018				182
EAST							
43 BONDOUKOU	1	7	56	1.0184	1.0266	2,690	3
Subtotal	1	7	56				3
NORTH							
44 KORHOGO	6	32	173	1.0239	1.0419	2,640	15
45 FERKESSEDOUGOU	9	50	202	1.0465	1.0589	2,448	21
46 ODIENNE	0	0	25	1.0000	1.0000	2,971	0
47 BOUNDIALI	1	6	34	1.0206	1.0377	2,671	3
Subtotal	15	88	434				39
TOTALS	357	2,051	10,611				900

MARGINAL COSTS= 2,865

IVORY COAST
ALTERNATE B/ICM06
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	50,356	0	42,626	92,982	30,199
SOUTH	3,783	0	5,798	9,580	18,966
SOUTH WEST	3,000	0	4,388	7,387	44,824
WEST	1,192	0	1,634	2,826	15,553
CENTER WEST	2,911	0	4,211	7,122	24,074
CENTER	10,202	0	16,034	26,236	27,715
EAST	142	0	283	425	10,619
NORTH	1,852	0	3,414	5,265	24,782
TOTALS	73,437	0	78,388	151,810	27,981

Source: PADCO computer analysis

IVORY COAST
ALTERNATE B/ICM06
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	68.57	0.00	54.38	61.25
SOUTH	5.15	0.00	7.40	6.31
SOUTH WEST	4.09	0.00	5.60	4.87
WEST	1.62	0.00	2.08	1.86
CENTER WEST	3.96	0.00	5.37	4.69
CENTER	13.89	0.00	20.46	17.28
EAST	.19	0.00	.36	.28
NORTH	2.52	0.00	4.36	3.47

Source: PADCO computer analysis

IVORY COAST
ALTERNATE B/1CM06
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1986-1990

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	3,166	18,778	21,621	2,216	0	2,767	0	6,020	25,125	10,008	48,548	41,153	89,701	30,316
2 GRAND BASSAM	64	446	504	54	0	66	0	140	597	242	1,134	980	2,114	32,610
3 ANYAMA	12	137	232	9	0	20	0	65	183	43	410	290	700	14,194
4 BINGERVILLE	11	94	137	9	0	14	0	38	126	39	264	203	467	18,418
Subtotal	3,252	19,455	22,494	2,288	0	2,867	0	6,263	26,031	10,332	50,356	42,626	92,982	30,199
SOUTH														
5 BIVO	16	113	293	9	0	17	0	103	304	77	447	484	931	12,558
6 ABENGOUROU	30	152	321	16	0	23	0	113	409	141	541	663	1,203	18,320
7 ABBOVILLE	101	399	631	53	0	59	0	222	1,075	480	1,243	1,776	3,020	40,341
8 DABOU	14	84	202	7	0	12	0	71	226	46	319	363	682	13,943
9 ADIOPE	13	0	150	0	0	0	0	72	250	26	163	348	511	11,276
10 BONOUA	20	94	185	11	0	14	0	65	254	95	324	414	738	21,090
11 ABOISSO	6	0	78	0	0	0	0	38	125	12	84	174	259	10,410
12 AGNIBILEKROU	29	0	185	0	0	0	0	89	419	58	214	566	781	25,692
13 LAKOTA	12	0	105	0	0	0	0	50	200	24	117	274	391	15,399
14 AFFERY	4	0	63	0	0	0	0	30	93	8	67	131	198	9,497
15 AKOUPE	11	0	93	0	0	0	0	45	182	22	105	249	353	16,092
16 MIRRE MATTA	2	0	47	0	0	0	0	22	56	3	48	82	130	7,215
17 TIASSALE	13	0	96	0	0	0	0	46	201	26	110	274	383	19,382
Subtotal	272	842	2,448	95	0	125	0	967	3,793	1,038	3,783	5,798	9,580	18,966
SOUTH WEST														
18 SAN PEDRO	245	951	1,463	129	0	141	0	515	2,559	1,161	2,928	4,236	7,164	49,217
19 SASSANDRA	6	0	66	0	0	0	0	32	109	11	72	152	224	11,751
Subtotal	251	951	1,529	129	0	141	0	547	2,668	1,173	3,000	4,388	7,387	44,884
WEST														
20 MAN	48	255	562	25	0	38	0	198	686	225	927	1,109	2,036	18,911
21 DANANE	7	0	110	0	0	0	0	53	164	15	117	231	348	10,853
22 BUEKOUE	4	0	74	0	0	0	0	36	104	8	79	148	227	9,325
23 GUIGLO	5	0	64	0	0	0	0	30	105	11	69	146	215	12,191
Subtotal	65	255	810	25	0	38	0	317	1,059	258	1,192	1,634	2,826	15,553
CENTER WEST														
24 DALOA	73	349	692	38	0	52	0	244	939	347	1,204	1,530	2,734	22,521
25 GAGNOA	101	421	715	53	0	62	0	252	1,134	480	1,353	1,866	3,219	33,039
26 OUME	25	0	172	0	0	0	0	83	376	51	199	510	708	22,035
27 SEGUELA		0	53	0	0	0	0	25	50	0	53	75	128	5,801
28 ISSIA	10	0	92	0	0	0	0	44	167	19	102	231	333	14,605
Subtotal	210	770	1,725	92	0	114	0	648	2,666	897	2,911	4,211	7,122	24,074
CENTER														
29 BOUAKE	616	2,451	3,916	323	0	363	0	1,379	4,597	2,919	7,670	10,895	18,565	40,796
30 TAMOUSOUKRO	33	183	413	17	0	27	0	146	492	155	673	793	1,466	16,448
31 DIMBOKRO	111	0	663	0	0	0	0	318	1,559	222	774	2,099	2,873	28,739
32 KATIOLA	17	0	155	0	0	0	0	74	284	33	172	392	563	15,022
33 SINFRA	7	0	109	0	0	0	0	52	161	14	116	227	343	9,854
34 BOUAFLE	23	0	179	0	0	0	0	86	364	46	202	496	698	18,019
35 ARRAH		0	67	0	0	0	0	32	62	0	67	95	161	5,437
36 BONGOUANOU	3	0	76	0	0	0	0	37	95	6	79	137	216	7,454
37 TOUMODI	7	0	85	0	0	0	0	41	134	13	91	188	279	10,671
38 DAOUKRO	2	0	63	0	0	0	0	30	77	4	65	112	177	7,409
39 SEITRA	9	0	88	0	0	0	0	42	158	18	97	219	316	13,854
40 BEOUMI	5	0	71	0	0	0	0	34	110	10	76	155	231	11,095
41 M'BAHIAKRO	4	0	63	0	0	0	0	30	95	9	68	134	202	10,058
42 M'BATTO	2	0	51	0	0	0	0	24	64	4	53	92	145	7,618
Subtotal	839	2,633	5,998	340	0	390	0	2,326	10,253	3,454	10,202	16,034	26,236	27,715
EAST														
43 BONDOUKOU	9	0	132	0	0	0	0	63	201	18	142	283	425	10,619
Subtotal	9	0	132	0	0	0	0	63	201	18	142	283	425	10,619
NORTH														
44 KORHOGO	65	304	595	34	0	45	0	210	819	307	1,044	1,336	2,380	24,526
45 FERKESSEDOUGOU	95	0	550	0	0	0	0	264	1,315	189	645	1,768	2,413	34,488
46 ODIENNE		0	66	0	0	0	0	32	62	0	66	93	159	6,268
47 BOUNDIALI	9	0	88	0	0	0	0	42	156	17	97	216	313	15,307
Subtotal	168	304	1,300	34	0	45	0	548	2,353	514	1,852	3,414	5,265	24,782
TOTALS	5,066	25,211	36,436	3,002	0	3,720	0	11,678	49,023	17,682	73,437	78,388	151,810	27,981

IVORY COAST
ALTERNATE B/ICM06
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	64,798	0	61,364	126,160	30,272
SOUTH	4,717	0	8,301	13,019	20,016
SOUTH WEST	3,891	0	6,256	10,147	36,875
WEST	1,451	0	2,325	3,775	17,796
CENTER WEST	3,748	0	6,136	9,883	24,826
CENTER	12,961	0	22,831	35,792	26,310
EAST	164	0	396	560	12,307
NORTH	2,343	0	4,911	7,254	24,400
TOTALS	94,074	0	112,530	206,570	27,891

Source: PADCO computer analysis

IVORY COAST
ALTERNATE B/ICM06
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	68.88	0.00	54.53	61.07
SOUTH	5.01	0.00	7.38	6.30
SOUTH WEST	4.14	0.00	5.56	4.91
WEST	1.54	0.00	2.07	1.83
CENTER WEST	3.98	0.00	5.45	4.78
CENTER	13.78	0.00	20.29	17.33
EAST	.17	0.00	.35	.27
NORTH	2.49	0.00	4.36	3.51

Source: PADCO computer analysis

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IVORY COAST
ALTERNATE B/ICM06
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1991-1995

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITA-TION	CIRCU-LATION	TRANS-PORT	POWER	OTHER PHYSI-CAL	HOUSING	HEALTH	EDUCA-TION	OTHER SOCIAL	TOTAL PHYSI-CAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	4,430	24,780	26,563	3,101	0	3,652	0	12,274	32,984	14,002	62,526	59,260	121,790	30,490
2 GRAND BASSAM	90	594	626	75	0	87	0	286	793	340	1,472	1,419	2,891	32,167
3 ANYAMA	17	166	256	14	0	26	0	137	199	62	477	398	875	16,237
4 BINGERVILLE	15	120	158	12	0	18	0	80	152	56	323	287	611	20,755
Subtotal	4,551	25,660	27,603	3,202	0	3,781	0	12,777	34,128	14,460	64,798	61,364	126,160	30,272
SOUTH														
5 DIVO	24	139	326	12	0	21	0	217	340	111	521	669	1,190	14,512
6 ABENGOUROU	43	199	383	23	0	29	0	236	517	204	677	957	1,634	20,396
7 AGBOVILLE	136	522	792	71	0	77	0	437	1,435	444	1,599	2,516	4,115	33,380
8 DAPOU	20	107	231	11	0	16	0	149	268	96	385	514	899	16,078
9 ADIOPE	19	0	176	0	0	0	0	151	309	37	195	497	692	12,823
10 BONOUA	29	126	226	15	0	19	0	135	333	137	416	606	1,022	22,702
11 ABOISSO	9	0	91	0	0	0	0	79	151	18	100	247	347	12,002
12 AGNIBILEKROU	41	0	238	0	0	0	0	179	576	81	279	837	1,116	23,075
13 LAKOTA	17	0	128	0	0	0	0	104	263	35	146	401	547	16,496
14 AFFERY	6	0	71	0	0	0	0	64	107	12	77	183	260	11,065
15 ARIOUPE	16	0	115	0	0	0	0	92	240	32	131	364	495	16,995
16 HIRFE WATTA	2	0	50	0	0	0	0	48	57	5	52	109	161	8,480
17 TIASSALE	19	0	121	0	0	0	0	94	271	37	140	403	543	19,269
Subtotal	381	1,093	2,950	132	0	162	0	1,985	4,868	1,449	4,717	8,301	13,018	20,016
SOUTH WEST														
18 SAN PEDRO	331	1,255	1,861	174	0	186	0	1,012	3,459	1,368	3,806	6,039	9,845	38,970
19 SASSANDRA	8	0	77	0	0	0	0	66	134	16	85	217	302	13,393
Subtotal	339	1,255	1,938	174	0	186	0	1,078	3,593	1,384	3,891	6,256	10,147	36,875
WEST														
20 MAN	69	330	660	36	0	49	0	414	848	325	1,143	1,587	2,729	21,304
21 DANANE	11	0	125	0	0	0	0	111	192	21	136	325	461	12,684
22 DUEKOUE	6	0	83	0	0	0	0	76	117	12	89	205	294	10,974
23 GUIELO	8	0	74	0	0	0	0	64	129	16	82	209	291	13,928
Subtotal	93	330	943	36	0	49	0	664	1,287	373	1,451	2,325	3,775	17,796
CENTER WEST														
24 BALOA	105	461	839	55	0	68	0	505	1,217	498	1,530	2,219	3,749	24,257
25 GAGNOA	144	571	911	75	0	85	0	513	1,548	680	1,785	2,741	4,526	31,291
26 OUME	36	0	219	0	0	0	0	168	512	71	255	751	1,006	20,836
27 SEGUELA		0	53	0	0	0	0	55	35	0	53	90	143	6,477
28 ISSIA	14	0	111	0	0	0	0	92	215	27	125	335	460	16,105
Subtotal	298	1,032	2,134	130	0	153	0	1,332	3,527	1,277	3,748	6,136	9,883	24,826
CENTER														
29 BOUAKE	829	3,206	4,906	435	0	475	0	2,721	8,789	3,931	9,852	15,441	25,293	34,471
30 YAMOUSOUKRO	48	235	482	25	0	35	0	305	602	226	825	1,133	1,958	18,709
31 DIMBOKRO	153	0	854	0	0	0	0	633	2,139	306	1,007	3,078	4,085	24,056
32 KATIOLA	24	0	188	0	0	0	0	154	367	47	211	569	780	14,449
33 SINFRA	19	0	123	0	0	0	0	110	187	21	133	317	451	11,475
34 BOUAFLE	33	0	223	0	0	0	0	176	487	66	256	729	985	18,377
35 ARRAH		0	67	0	0	0	0	69	45	0	67	113	180	6,072
36 BONGOUANOU	4	0	83	0	0	0	0	78	98	8	87	185	272	8,795
37 TOUMODI	9	0	98	0	0	0	0	85	162	19	107	266	373	12,290
38 DAOUKRO	3	0	68	0	0	0	0	64	80	7	71	151	222	8,753
39 SETIFA	13	0	106	0	0	0	0	88	203	26	119	317	436	15,341
40 BEOUMI	8	0	81	0	0	0	0	71	132	15	89	219	308	12,830
41 M'BAHIAKRO	6	0	72	0	0	0	0	64	112	13	79	199	267	11,729
42 M'BATTO	3	0	55	0	0	0	0	52	67	6	58	124	182	8,978
Subtotal	1,145	3,441	7,406	460	0	510	0	4,669	13,470	4,690	12,961	22,831	35,792	26,310
EAST														
43 BONDOUKOU	13	0	151	0	0	0	0	133	236	27	164	396	560	12,303
Subtotal	13	0	151	0	0	0	0	133	236	27	164	396	560	12,303
NORTH														
44 KORHOGO	93	405	728	49	0	60	0	435	1,072	442	1,336	1,949	3,284	26,290
45 FERKESSEDOUGOU	127	0	696	0	0	0	0	516	1,767	254	823	2,537	3,359	27,518
46 ODIENNE		0	66	0	0	0	0	68	44	0	66	112	178	7,111
47 BOUNDIALI	13	0	106	0	0	0	0	88	200	25	119	314	432	17,044
Subtotal	233	405	1,596	49	0	60	0	1,107	3,083	721	2,343	4,911	7,254	24,400
TOTALS	7,054	33,216	44,717	4,183		TOTALS		23,748	64,190	24,582	94,074	112,530	206,570	27,891

Source: PADCO analysis

IVORY COAST
ALTERNATE B/ICM06
SUMMARY OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL	COSTS PER CAPITA
GREATER ABIDJAN	53,444	0	55,290	108,730	20,276
SOUTH	4,140	0	7,795	11,936	14,641
SOUTH WEST	3,247	0	5,594	8,841	22,486
WEST	1,323	0	2,277	3,600	14,445
CENTER WEST	3,262	0	5,708	8,970	17,475
CENTER	10,907	0	20,573	31,480	17,403
EAST	154	0	375	529	10,125
NORTH	2,049	0	4,523	6,572	16,833
TOTALS	78,529	0	102,130	180,680	18,850

Source: PADCO computer analysis

IVORY COAST
ALTERNATE B/ICM06
PERCENT DISTRIBUTION OF
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

In Percents

REGION	PHYSICAL INFRA-STRUC-TURE	HOUSING	SOCIAL INFRA-STRUC-TURE	GRAND TOTAL
GREATER ABIDJAN	68.06	0.00	54.14	60.19
SOUTH	5.27	0.00	7.63	6.61
SOUTH WEST	4.13	0.00	5.48	4.89
WEST	1.68	0.00	2.23	1.99
CENTER WEST	4.15	0.00	5.59	4.96
CENTER	13.89	0.00	20.14	17.42
EAST	.20	0.00	.37	.29
NORTH	2.61	0.00	4.43	3.64

Source: PADCO computer analysis

IVORY COAST
ALTERNATE B/ICM06
INTRA-URBAN INFRASTRUCTURE COSTS
DURING 1996-2000

Costs in MILLIONS FCFA

SETTLEMENT	WATER	SANITATION	CIRCULATION	TRANSPORT	POWER	OTHER PHYSICAL	HOUSING	HEALTH	EDUCATION	OTHER SOCIAL	TOTAL PHYSICAL	TOTAL SOCIAL	GRAND TOTAL	GRAND PER CAPITA
GREATER ABIDJAN														
1 ABIDJAN	3,901	18,530	23,176	2,731	0	3,203	0	8,313	32,703	12,331	31,541	53,347	104,890	20,361
2 GRAND BASSAM	80	453	549	67	0	77	0	198	789	302	1,226	1,289	2,515	21,401
3 ANYAMA	18	101	237	15	0	24	0	74	235	68	396	376	772	12,987
4 BINGERVILLE	16	87	148	13	0	17	0	49	172	58	281	278	559	16,281
Subtotal	4,015	19,171	24,110	2,825	0	3,322	0	8,634	33,899	12,759	33,444	55,290	108,730	20,276
SOUTH														
5 DIVO	26	93	308	14	0	21	0	123	407	125	463	655	1,118	12,168
6 ABENGOUROU	43	151	355	22	0	28	0	152	567	202	600	921	1,521	15,659
7 AGBOVILLE	115	407	671	60	0	65	0	323	1,359	544	1,318	2,226	3,544	20,315
8 DABOU	23	80	222	12	0	16	0	91	320	107	353	518	871	13,476
9 ADIOPE	19	0	166	0	0	0	0	[illegible]	348	38	185	481	666	10,368
10 BONOUA	29	102	212	15	0	18	0	[illegible]	[illegible]	36	375	591	966	17,019
11 ABOISSO	9	0	86	0	0	0	0	[illegible]		9	95	240	335	9,906
12 AGNIBILEKROU	36	0	209	0	0	0	0			1	245	774	1,019	14,969
13 LAKOTA	16	0	117	0	0	0	0	[illegible]		[illegible]	134	379	513	12,192
14 AFFERY	7	0	68	0	0	0	0			13	75	181	256	9,550
15 AKOUPE	15	0	105	0	0	0	0	[illegible]	[illegible]	30	120	343	463	12,419
16 HIRRE WATTA	3	0	50	0	0	0	0	26	79	7	53	112	165	8,018
17 TIASSALE	17	0	138	0	0	0	0	67	273	34	125	374	498	13,277
Subtotal	359	832	2,677	123	0	149	0	1,325	5,111	1,360	4,140	7,795	11,936	14,641
SOUTH WEST														
18 SAN PEDRO	281	995	1,584	148	0	158	0	769	3,283	1,333	3,166	5,385	8,551	23,336
19 SASSANDRA	8	0	73	0	0	0	0	42	151	17	81	209	290	10,846
Subtotal	289	995	1,656	148	0	158	0	811	3,434	1,349	3,247	5,594	8,841	22,486
WEST														
20 MAN	71	249	620	37	0	48	0	261	955	334	1,025	1,349	2,374	16,865
21 DANANE	12	0	119	0	0	0	0	66	226	23	130	315	445	10,716
22 DUEKOUE	7	0	82	0	0	0	0	44	148	15	89	207	296	9,826
23 GUIGLO	8	0	71	0	0	0	0	40	148	16	79	205	284	11,422
Subtotal	98	249	891	37	0	48	0	411	1,477	388	1,323	2,277	3,600	14,445
CENTER WEST														
24 DALOA	99	352	763	52	0	64	0	334	1,281	471	1,330	2,087	3,417	17,745
25 GAGNOA	130	460	813	68	0	76	0	376	1,557	616	1,547	2,548	4,095	20,752
26 OURE	32	0	192	0	0	0	0	122	505	63	224	691	915	13,942
27 SEGUELA		0	46	0	0	0	0	22	42	0	46	64	110	4,972
28 ISSIA	13	0	103	0	0	0	0	61	231	27	116	318	434	12,309
Subtotal	274	811	1,916	120	0	140	0	915	3,617	1,176	3,262	5,708	8,970	17,475
CENTER														
29 BOUAKE	701	2,482	4,159	368	0	402	0	1,996	8,336	3,323	8,112	13,655	21,767	21,157
30 YAMOUSOUKRO	49	172	449	26	0	34	0	198	674	230	730	1,093	1,822	14,789
31 DIMBOKRO	132	0	725	0	0	0	0	482	2,056	264	967	2,802	3,679	14,965
32 KATIOLA	23	0	171	0	0	0	0	102	390	45	194	537	731	12,402
33 SINFRA	11	0	117	0	0	0	0	64	221	22	128	307	435	9,710
34 BOUAFLE	30	0	199	0	0	0	0	123	493	60	229	676	905	12,979
35 ARRAH		0	57	0	0	0	0	28	54	0	57	81	138	4,661
36 BONGOUANOU	6	0	84	0	0	0	0	44	139	13	90	195	285	8,468
37 TOUMODI	10	0	92	0	0	0	0	52	184	20	102	256	357	10,079
38 DAOUKRO	5	0	67	0	0	0	0	35	110	10	72	155	227	8,244
39 SETIF[illegible]	13	0	97	0	0	0	0	57	217	25	110	299	409	11,700
40 BEOUMI	8	0	77	0	0	0	0	43	152	16	85	211	296	10,613
41 M'BAHIAKRO	7	0	68	0	0	0	0	38	131	13	75	183	258	9,854
42 M'BATTO	4	0	53	0	0	0	0	28	87	8	57	123	181	8,158
Subtotal	998	2,654	6,426	393	0	436	0	3,279	13,245	4,049	10,907	20,573	31,480	17,403
EAST														
43 BONDOUKOU	14	0	140	0	0	0	0	78	269	28	154	375	529	10,125
Subtotal	14	0	140	0	0	0	0	78	269	28	154	375	529	10,125
NORTH														
44 KORHOGO	90	319	671	47	0	57	0	294	1,145	427	1,184	1,867	3,051	19,399
45 FERKESSEDOUGOU	107	0	589	0	0	0	0	391	1,667	214	696	2,272	2,968	16,758
46 ODIENNE		0	57	0	0	0	0	27	53	0	57	80	136	5,458
47 BOUNDIALI	13	0	99	0	0	0	0	58	220	25	112	304	416	13,413
Subtotal	210	319	1,416	47	0	57	0	771	3,086	667	2,049	4,523	6,572	16,833
TOTALS	6,257	25,033	39,234	3,694	0	4,310	0	16,224	64,135	21,777	78,529	102,130	180,680	18,850

Source: PADCO analysis