

FINANCIAL ANALYSIS

A. Introduction

1. The financial analysis of the Yunnan Chuxiong Urban Environment Improvement Project includes financial sustainability analysis of three nonrevenue generating components of the urban infrastructure and environment improvement subprojects in the cities of Chuxiong Municipality, Lufeng County, and Wuding County. The financial analyses and preparation of the financial management assessment were undertaken in accordance with Asian Development Bank (ADB) guidelines in *Financial Management and Analysis of Projects*¹ and *Financial Due Diligence: A Methodology Note*.²

B. Financial Sustainability Analysis

1. Approach

2. Financial sustainability of the project components during implementation and operation phase has been determined by the following approach. Based on a detailed review of the revenue and expenditure statements of the Chuxiong municipal government (CMG), the Lufeng county government (LCG), and the Wuding county government (WCG) during 2007–2012, the fiscal impact of the proposed Yunnan Chuxiong Urban Environment Improvement Project on each government was assessed by comparing annual revenues from the identified financing sources with the annual counterpart funds required for (i) capital expenditures during project implementation, and (ii) recurrent costs for operation and maintenance (O&M) for nonrevenue generating components and for project debt service during implementation and operation.

2. Criteria for the analysis

3. Based on generally accepted criteria employed by international financial institutions, the annual counterpart contributions would be considered affordable if they did not exceed about 15%–20% of the cities' projected total annual construction budgets. However, it was not possible to identify the construction or investment subcomponent of the three governments' budgets because reporting is by sector and combines recurrent and investment expenditures under the same heading. Therefore, the annual contribution was compared with the overall annual expenditures.

3. Historical Revenues and Expenditures

4. The historical financial performance of the three project municipal and county governments were analyzed to determine whether they had the capacity to provide the required counterpart funds during the construction period and the funds necessary for O&M and debt service during the operating period. The analysis calculated annual average growth rates of revenues and expenditures during the project period. The sources of income for these governments comprise value-added taxes, business taxes, income taxes, resource taxes, real property taxes, nontax revenues, and subsidies and/or direct transfers from the prefecture and provincial governments. The expenditures were broken down into number of key categories including general public services, education, public safety, education, science and technology, environmental protection and transportation. Tables 1–3 present the historical revenues and expenditures of the CMG, the LCG, and the WCG, with the computed annual average growth rates.

¹ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

² ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

Table 1: Revenues and Expenditures of Chuxiong Municipal Government
(CNY million)

Item	2007	2008	2009	2010	2011	2012	Growth Rate
A. Revenues							
1. Municipal Fiscal Revenues	791	955	1,288	1,764	1,748	2,054	17%
a. General budget revenue	583	736	831	973	1,160	1,393	16%
i. Revenue from taxes ^a	489	650	747	847	1,017	1,222	17%
ii. Revenue from nontaxes	95	85	83	126	143	171	10%
b. Out-of-budget revenues	207	219	457	791	589	661	
2. Upper-Level Government Allocations	520	626	823	1,056	1,202	1,716	22%
Total Revenues (A + B)	1,310	1,581	2,111	2,820	2,950	3,770	19%
B. Expenditures							
General public services	175	198	175	195	229	287	9%
Public safety	71	61	87	106	104	126	10%
Education	191	205	253	310	353	530	19%
Science and technology	3	5	4	10	12	19	37%
Social insurance and employment	65	166	223	215	242	630	46%
Medical and sanitation	77	99	119	194	195	215	19%
Environmental protection	3	50	25	33	62	76	73%
Agriculture, forestry, and water affairs	86	108	141	294	297	417	30%
Transportation	44	29	105	66	123	145	22%
Others	302	315	332	448	542	425	6%
Transfers to upper-level governments	89	127	149	168	204	243	18%
Total	1,106	1,364	1,613	2,039	2,364	3,112	19%
Surplus	205	217	498	781	586	658	

^a This includes value-added taxes, business taxes, income taxes, resource taxes, and housing property taxes.
Source: Chuxiong Municipal Government Finance Bureau.

Table 2: Revenues and Expenditures of Lufeng County Government
(CNY million)

Item	2007	2008	2009	2010	2011	2012	Growth Rate
A. Revenues							
1. County fiscal revenues	307	376	470	527	572	632	13%
a. General budget revenue	289	325	402	463	540	561	12%
i. Revenues from taxes ^a	236	281	344	401	461	461	12%
ii. Revenues from nontaxes	54	44	58	62	80	99	11%
b. Out-of-budget revenues	18	51	68	64	31	71	25%
2. Upper level government allocations	448	550	808	1,072	1,040	1,309	20%
Total Revenues (A + B)	756	926	1,277	1,598	1,612	1,940	17%
B. Expenditures							
General public service	126	145	153	172	196	246	12%
Public safety	42	41	56	58	67	62	7%
Education	141	174	211	276	321	381	18%
Science and technology	1	5	2	5	3	2	9%
Social insurance and employment	172	196	308	308	279	346	12%
Medical and sanitation	58	74	147	132	176	184	21%
Environmental protection	7	9	16	41	41	23	24%
Agriculture, forestry and water affairs	60	94	149	202	247	306	31%
Transportation	33	18	42	38	42	45	5%
Others	77	60	76	334	130	248	22%
Transfer to upper level government	32	41	52	61	74	73	15%
Total	748	858	1,213	1,626	1,575	1,915	17%
Surplus	8	68	64	(28)	37	25	

^a This includes value-added taxes, business taxes, income taxes, resource taxes, and housing property taxes.
Source: Lufeng County Government Finance Bureau.

Table 3: Revenues and Expenditures of Wuding County Government
(CNY million)

Item	2007	2008	2009	2010	2011	2012	Growth Rate
A. Revenues							
1. County fiscal revenues	80	123	171	211	287	395	31%
a. General budget revenue	76	120	142	195	276	368	30%
i. Revenues from taxes	58	93	110	147	201	270	29%
ii. Revenues from nontaxes	17	27	32	48	74	98	34%
b. Out-of-budget revenues	4	3	29	16	11	27	37%
2. Upper level government allocations	330	454	607	630	822	1,179	24%
Total Revenues (A + B)	410	577	779	841	1,109	1,574	25%
B. Expenditures							
General public service	74	95	133	117	148	224	20%
Public safety	24	23	38	38	46	47	12%
Education	108	123	160	176	197	306	19%
Science and technology	1	3	2	9	5	5	35%
Social insurance and employment	33	86	106	151	178	199	35%
Medical and sanitation	42	53	92	77	123	137	22%
Environmental protection	7	5	19	46	45	41	33%
Agriculture, forestry and water affairs	49	93	116	107	195	292	35%
Transportation	38	23	58	14	48	68	10%
Others	24	37	38	89	103	230	45%
Transfer to upper level government	5	7	7	7	8	9	9%
Total	407	548	768	831	1,096	1,558	25%
Surplus	2	29	10	10	13	16	

^a This includes value-added taxes, business taxes, income taxes, resource taxes, and housing property taxes.

Source: Wuding County Government Finance Bureau.

4. Financial Sustainability Analysis

5. The average income growth rate of the three project cities during 2007–2011 was 17%–25% per year. The analysis projected that revenue, excluding income from land sales, would increase 7.5% per annum.³ The rate was used to forecast the government revenues and expenditures for the coming years. The financial sustainability analysis compared the estimated counterpart funds and domestic commercial bank interest and principal repayments with the government revenues during the implementation period. It also compared the O&M and ADB debt service requirements with the government revenues and surplus annually during the period of operation. The ADB loan will have a 25-year term, including a grace period of 6 years, an annual interest rate determined in accordance with ADB's London interbank offered rate-based lending facility, a commitment charge of 0.15% per annum, and such other terms and conditions set forth in the draft loan and project agreements. Domestic bank loans are projected to have a 2-year term with an annual interest rate of 8.75%. Table 4 shows the total amount of funds that each project municipal and county government must provide, which may include new budgets and allocations that will be earmarked.

6. **Chuxiong municipal government.** The CMG will provide about CNY501 million for counterpart funds and domestic debt service during implementation and about CNY16–CNY29 million per year during operation. The financial forecast for CMG indicated that annual counterpart funding and domestic debt service would comprise 0.4%–2.6% of projected revenues during the implementation period. ADB debt service and O&M costs were projected to be about 0.3%–0.4% of annual projected revenues during the operational period, which is a reasonable proportion of

³ The target for growth in the gross domestic product under the People's Republic of China Twelfth Five-Year Plan (2011–2015) is 7.5%. In the analysis, the national average was used to give a conservative estimate compared with the actual average income growth rate of 17%–25% in the three project cities.

government expenditures. The requirements for both counterpart funding and debt service represent minimal proportions of the projected revenues, which are considered sufficient to maintain the government's fiscal sustainability.

7. **Lufeng county government.** The LCG will provide about CNY723 million for counterpart funds and domestic debt service during implementation and about CNY16–CNY28 million per year during operation. The financial forecast for the LCG indicated that annual counterpart funding and domestic debt service would comprise about 1.1%–7.6% of projected revenues during the implementation period, while the ADB debt service and O&M costs would represent about 0.4%–0.5% of the average of projected revenues during the operational period. The requirements for both counterpart funding and debt service represent minimal proportions of the projected revenues, which are considered sufficient to maintain the government's fiscal sustainability.

8. **Wuding county government.** The WCG will provide about CNY346 million for counterpart funds and domestic debt service during implementation and CNY12–CNY22 million per year during operation. The financial forecast for the WCG indicated that annual counterpart funding and domestic debt service would comprise about 1.0%–3.9% of projected revenues during the implementation period, while ADB debt service and O&M would be about 0.5%–0.6% of projected revenues during the operational period. The requirements for both counterpart funding and debt service account for small proportions of projected revenues and expenditures and are not expected to have a significant negative impact on the government's fiscal sustainability.

5. Summary of the Fiscal Affordability Assessment

9. Assessment of projected annual revenues shows that the CMG, the LCG, and the WCG will all have the necessary counterpart funds for their subprojects. Based on the fund sources identified during project preparation (including new budgets, subsidies, and allocation that will be earmarked), the analysis indicated that sufficient counterpart and debt service funds should be available for all subprojects during implementation, as well as for O&M costs and debt service during operation. The projected fiscal impacts of total annual debt service—counterpart funds, and loan principal and interest payments—to each government ranged from 2.6% (CMG) to 7.6% (LCG) of total projected revenues in 2015. These figures will be reduced from 0.3% (CMG) to 0.6% (WCG) when principal repayment of the ADB loan starts in 2020. The financial sustainability analysis concluded that this will not pose an immediate financial risk for affordability of counterpart funds, O&M costs, and loan repayments. This indicates acceptable fiscal risk, since the fiscal revenues of the three governments have been projected to grow at an annual rate of 7.5%, which can be considered a conservative estimate based on the actual average income growth rate of 17%–25% during 2007–2011.

Table 4: Summary of Annual Funds Required
(CNY million)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
A. Chuxiong Municipal Government										
Revenues	4,357	4,683	5,035	5,412	5,818	6,255	6,724	7,228	7,770	8,353
Annual counterpart funds and domestic debt service during the construction	39.4	120.5	113.5	106.4	91.7	23.9				
Annual counterpart funds and domestic debt service as percentage of revenues	1.4%	2.6%	2.3%	2.0%	1.6%	0.4%				
Annual ADB debt service and O&M during the operation						16	22	23	23	29
Annual ADB debt service and O&M as percentage of revenues						0.3%	0.3%	0.3%	0.3%	0.4%
B. Lufeng County Government										
Revenues	2,242	2,410	2,591	2,786	2,994	3,219	3,460	3,720	3,999	4,299
Annual counterpart funds and domestic debt service during the construction	96.1	182.1	158.0	137.1	110.5	36.6				
Annual counterpart funds and domestic debt service as percentage of revenues	4.3%	7.6%	6.1%	4.9%	3.7%	1.1%				
Annual ADB debt service and O&M during the operation						16	22	22	23	28
Annual ADB debt service and O&M as percentage of revenues						0.4%	0.5%	0.5%	0.4%	0.4%
C. Wuding County Government										
Revenues	1,819	1,956	2,102	2,260	2,429	2,612	2,808	3,018	3,244	3,488
Annual counterpart funds and domestic debt service during the construction	39.4	77.3	74.8	79.4	78.4	26.0				
Annual counterpart funds and domestic debt service as percentage of revenues	2.2%	3.9%	3.6%	3.5%	3.2%	1.0%				
Annual ADB debt service and O&M during the operation						12	17	17	17	22
Annual ADB debt service and O&M as percentage of revenues						0.5%	0.6%	0.6%	0.5%	0.6%

ADB = Asian Development Bank, O&M = operation and maintenance.
Source: Asian Development Bank estimates.