



PREMISES COST/BENEFIT ANALYSIS USER MANUAL

This standardized cost/benefit analysis (CBA) has been developed by the UNDG Task Team on Common Premises (TTCP) for the UNDP Premises Relocation Committee (PRC). This tool contains 10 spreadsheets, all linked to each other, in order to avoid repetitions and keep data input simple and easy.

Basically, this CBA only requires data input for the "Current Situation" and for three alternative options.

PLEASE NOTE THAT:

- 1. THE USER SHOULD ONLY FILL IN THE WHITE FIELDS**
- 2. ALL COSTING ESTIMATES SHOULD BE IN US DOLLARS**

Cells highlighted in light yellow or other colours may include formulas, and therefore cannot be used for data input. Should any data errors appear on sheet 10 (e.g. #DIV/0!), please check the previous sheets for any missing information.

The spreadsheets divide the expense data for different line items by the number of square meters.

To print all spreadsheets with page numbers, select the "entire workbook" option from the printing dialogue box.

Users are kindly requested to fill the form as provided by the PRC, i.e. without modifications. Should any modifications be necessary, or if you identify any flaws or errors, please contact the PRC Secretariat (luigi.demunnik@undp.org). Any remarks or suggestions for improvement are welcome.



Sheet 1 Cover Sheet

Fill in general data for the project overall: what Agencies are participating, interest rate used, date, duty station, etc. Data input is required only in the white fields.

U.N. House / Common Premises		Easter Island, Ecuador	
Feasibility Study - Cost/Benefit Analysis			
Prepared on: 09-Oct-07		By: Alessandro Sodano	
Participating Agencies:	<div>UNDP UNFPA UNICEF WFP Other 1 Other 2 Other 3 Other 4 Other 5 Other 6</div>	Project Duration (years, max 7): <div>7</div>	Options: Option I Juppiter Building Option II Aphrodite Building Option II Mercurius Building
		US Treasury current discount rate, per Year: <div>3.25%</div>	
CONFIDENTIAL			



Sheet 2: Decision-making Matrix

Step 1 First determine the maximum available score per category.

PLEASE NOTE THAT TOTAL SCORE HAS TO BE 100.

Step 2 Then assign a score to each option for each category.

PLEASE PROVIDE NARRATIVE EXPLANATION AND DISCUSSION FOR THE ASSIGNED SCORES.

U.N. House / Common Premises		Easter Island, Ecuador				
FEASIBILITY STUDY						
Decision Making Matrix						
Prepared on:		9-oct-07		By: Alessandro Sodano		
CATEGORIES	Maximum Available Score per Category (Total shall be 100)	Current Situation	Juppiter Building	Aphrodite Building	Mercurius Building	
LOCATION	To consider: Proximity to other business locations, Accessibility (public/private transportation), and others	20	10	5	10	15
SPACE	To consider: No. of available workstations, private and public parking, hygienic conditions, facility management, layout, meeting rooms and others	20	10	5	10	15
SAFETY & SECURITY	To consider: Area, Building, and others	20	10	5	10	15
INVESTMENT COSTS	To consider Capital Costs:	20	10	5	10	15
RECURRING COSTS	To consider Operating Costs:	20	10	5	10	15
TOTAL SCORES		100	50	25	50	75

For the rating of categories 1 through 3 (Location, Space, and Safety & Security) it is suggested to organize narrative as follows:

Category 1 (Location)

First Ranked: Option X

List all pros and cons of option X – *but with regard to category 1 only.*

Second ranked: Option Y

List all pros and cons of option Y – *but with regard to category 1 only.*

Provide evidence of why Option Y was ranked second after Option X for this category.



Third ranked: Option Z

List all pros and cons of option Z – *but with regard to category 1 only*.

Provide evidence of why Option Z was ranked third after Options X & Y for this category.

Fourth (last) ranked: Option W

List all pros and cons of option W – *but with regard to category 1 only*.

Provide evidence of why Option W was ranked third after Options X, Y & Z for this category.

For the rating of cost proposals (either investment or lease), it is strongly recommended to adopt the following method:

$$\text{SCORE} = \left(\frac{\text{Lowest Proposal in \$}}{\text{Proposal to be scored in \$}} \right) \times \left(\text{maximum score for the line item} \right)$$



Sheet 3 Current Situation

Step 1 First fill in the number of staff per Agency, as well as the current gross space in square meters.

Step 2 Then fill in the annual rented rates, as well as the costs of utilities and services.

U.N. House / Common Premises											Easter Island, Ecuador	
FEASIBILITY STUDY												
Annual Recurring Cost Pro-Ration Sheet											Current Situation	
Prepared on: 09-Oct-07											By: Alessandro Sodaso	
Cost Calculation Parameters		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Totals
Employees	No.	10	10	10	10	10	10	10	10	10	10	100
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
Area	m ²	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	10,000.00
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
Services		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Sub-Totals
Lease	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Cleaning	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Garbage collection & recycling	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Gardening	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Maintenance	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Power Supply	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Gas Supply	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Water Supply	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Security (premises only)	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Totals		\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$ 800,000.00
											Current Cost / m ²	\$ 80.00



Sheet 4 Option I Recurring Costs

- Step 1** Fill in the number of staff and the projected space occupied per Agency.
- Step 2** In the right-side column, fill in the projected costs for these services and utilities. If rows are not used, fill in zero dollar values; US\$0.00¹.

U.N. House / Common Premises											Easter Island, Ecuador	
FEASIBILITY STUDY												
Annual Recurring Costs Pro-Ration Sheet						Option I			Juppiter Building			
Prepared on: 09-Oct-07						By: Alessandro Sodano						
Cost Calculation Parameters		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Totals
Employees	No.	10	10	10	10	10	10	10	10	10	10	100
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
Area	m²	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,000.00
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
Services		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Sub-Totals
Lease		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Cleaning		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Garbage coll. & recycling		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Gardening		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Maintenance		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Power Supply		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Gas Supply		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Water Supply		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Security (premises only)		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Totals:		\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$ 300,000.00
Recurring Cost / m²											\$ 300.00	

¹ In order to accurately determine the recurring costs of a real estate option, it is strongly recommended to research the recurring costs of comparable real estate objects in the area. You may want to look at: rent/m², security, maintenance, cleaning, receptionist, etc.



Sheet 5 Option I Investment Costs

Step 1 First determine what renovation/construction items are required to fit out the building and bring it up to the UN's standards. In the spreadsheet, investment items are grouped under large categories. Make sure to consider:

C – Civil Work

- External Utility Distribution Networks (power, gas, water)
- External Sewerage Network
- External Storm Water Drainage Network
- Exterior Lighting
- Access Roads
- Parking
- Landscaping

S/A – Structural & Architectural Work

- Foundations
- Structural Frame
- Seismic Upgrade (renovation project only)
- Building Envelope (exterior walls, windows, exterior doors and roofs)

M/P – Mechanical & Plumbing Work

- Heating, Ventilation and Air Conditioning System (HVAC)
- Interior Gas Distribution System
- Elevators
- Freight Elevators
- Interior Plumbing and Draining System
- Plumbing Fixtures

E – Electrical Work

- Power Distribution System
- Interior Lighting System
- Emergency Power Supply (generator and connection cables)
- UPS



FP – Fire Protection Work

- Fire Protection Sprinkler System (if required)
- Fire Protection Reservoir and Water Distribution System
- Exterior Hydrant Network
- Fire Protection Water Distribution Network (external and internal)
- Fire/Smoke Detection Systems
- Fire Alarm System

SS – Special Systems

- LAN
- PABX
- Video Conferencing System

SEC – Security Systems

- Windows Safety Film
- Perimeter Fence (if required by MOSS)
- CCTV
- Anti-Intrusion Alarm System
- Public Address System
- Any other items included in the Security Assessment

ID - Interior Design

- Interior Partitions
- Interior Finishes (e.g. doors, drop ceiling, etc.)
- Common Furniture
- Blinds
- Movable Partitions

ES – Engineering Support

- Project Management (planning, design, construction/renovation and commissioning phases)
- Design



Step 2 Then fill in their costs in the last column.

U.N. House / Common Premises											Easter Island, Ecuador	
FEASIBILITY STUDY												
Investment Costs Pro-Ration Sheet						Option I			Juppiter Building			
Prepared on: 09-Oct-07						By: Alessandro Sodaro						
Cost Calculation Parameters		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Totals
Employees	No.	10	10	10	10	10	10	10	10	10	10	100
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
Area	m²	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,000.00
	%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	100.00%
INVESTMENT ITEMS		UNDP	UNFPA	UNICEF	WFP	Other 1	Other 2	Other 3	Other 4	Other 5	Other 6	Sub-Totals
C - Civil (site) Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
SJA - Structural and Architectural work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
M/P - Mechanical and Plumbing Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
E - Electrical Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
FP - Fire Protection Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
SS - Special Systems Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
SEC - Security Systems Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
ID - Interior Design Work	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Engineering Support	\$	10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 100,000.00
Totals		\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$ 300,000.00
Capital Cost / m²											\$ 300.00	

Sheets 6 & 8: Options II and III Recurring Costs

Fill in the same way as sheet 4.

Sheets 7 & 9: Options II and III Investment Costs

Fill in the same way as sheet 5.



Sheet 10: Option Comparison for the Cost/Benefit Analysis

Plugging data into worksheets 2 through 9 will automatically generate a cost comparison in worksheet 10. No data input is required in this spreadsheet.

U.N. House / Common Premises		Easter Island, Ecuador		
FEASIBILITY STUDY				
Option Cost Comparison				
Prepared on: 09-Oct-07		By: Alessandro Sodano		
US Treasury current discount rate, per Year (i): 3.25%		Project Duration (years, max 7) (n): 7.00		
Annual factor for investment cost calculation =	$\frac{i(1+i)^n}{(1+i)^n - 1}$	<u>0.0407</u> 0.2509	0.1620	
OPTION COMPARISON				
	Current Situation	Juppiter Building	Aphrodite Building	Mercurius Building
Annual Recurring Costs	\$800,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00
Annual Cost of Capital Investment	N/A	\$ 145,819.83	\$ 145,819.83	\$ 145,819.83
TOTAL ANNUAL COSTS	\$800,000.00	\$ 1,045,819.83	\$ 1,045,819.83	\$ 1,045,819.83
TOTAL COSTS	\$5,600,000.00	\$ 7,320,738.83	\$ 7,320,738.83	\$ 7,320,738.83
Total Space [m ²]	10,000.00	1,000.00	1,000.00	1,000.00
Cost/m ² (annual recurring costs)	\$80.00	\$ 300.00	\$ 300.00	\$ 300.00
Cost/m ² (capital investments)	N/A	\$ 145.82	\$ 145.82	\$ 145.82
TOTAL ANNUAL COSTS / m ²	\$80.00	\$ 1,045.82	\$ 1,045.82	\$ 1,045.82
TOTAL COSTS / m ²	\$560.00	\$ 7,320.74	\$ 7,320.74	\$ 7,320.74