

Cost
Benefit Analysis
and Reporting
Scenario
Examples

2023

### **Cost Benefit Analysis and Reporting Scenario Examples**

#### 5. Examples of CBA calculation in different scenarios

The following examples (anecdotal) are prepared by the BOS task team as a reference for OMTs and are based on experience and feedback shared by WFP, FAO, UN Secretariat, UNDP, UNFPA, UNHCR, UNICEF, UNOPS, and WHO).

#### 5.1. Estimate Approach vs. Exact Approach – or Use of UPL vs. Agency Cost<sup>1</sup>

As provided for in the supplemental guidance, during the 2023 annual review of the BOS, entities, at their discretion or the direction of their HQs, may revise their existing costs in the BOS platform to reflect any correction(s) needed in CBA. This is a one-off optional exercise, and the entities are no longer required to use a single approach for calculating the labor and monetary cost.

In the past, many entities used an 'Estimate Approach' [such as the use of the Universal Price List (UPL) or Local Price List (LPL)] to estimate labor costs<sup>2</sup>. Going forward, if an entity determines that the UPL/LPL may not accurately represent their entity's labor cost, there is a choice for the entity to calculate the entity cost differently, such as using a time-motion study, business process mapping or any entity-specific methodology for calculation of labour costs. A similar approach also applies to determining the monetary cost.

Below is an example provided by WFP on the calculation of labour cost before collaboration (current cost) and after collaboration (future cost). This example illustrates a scenario if WFP manages the common service on behalf of other entities.

To establish a contract, there are three activities that need to be conducted by different people. Each activity requires a different amount of time, and each person completing the step has a different salary

In 2021 WFP ran that associated activities		t process indep	endently and i	dentified t
Activities	Time	Level	Rate	Cost
Identify suppliers	2hr	G3	\$25	\$50
Raise PR	3hr	G6	\$45	\$135
Approve PR	0.5hr	P3	\$90	\$45
Total				\$230
As WFP did not dev				s indepen
No Address Commenced on				s indepen poration
As WFP did not dev the actual costs are	e the same as	the estimates fo	or before collab	s indepen poration
As WFP did not dev the actual costs an Activities	e the same as Time	the estimates fo	r before collab Rate	oration Cost
As WFP did not dev the actual costs are Activities Identify suppliers	e the same as Time 2hr	the estimates for Level G3	r before collab Rate \$25	s indepen poration Cost

	After	collaboratio	n	
As WFP will lead the time identifying sup				
Activities	Time	Level	Rate	Cost
Aggregate demand	2hr	G3	\$25	\$50
Identify suppliers	4hr	G3	\$25	\$100
Raise PR	3hr	<u>G6</u>	\$45	\$135
Approve PR	0.5hr	P4	\$100	\$50
Total				\$335
The activities WFP ti time aggregating de				
Activities	Time	Level	Rate	Cost
Aggregate demand	4hr	G2	\$25	\$100
Identify suppliers	8hr	G3	\$25	\$200
Raise PR	2hr	G6	\$45	\$90
Approve PR	0.5hr	P3	\$100	\$50
Total				\$440

<sup>&</sup>lt;sup>1</sup> For definition refer to BOS supplemental guidance

<sup>&</sup>lt;sup>2</sup> Based on the BOS guidance with the aim to reduce the time investment in determining labor costs

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#### 5.2. Difference between estimate (projection) and realized benefits

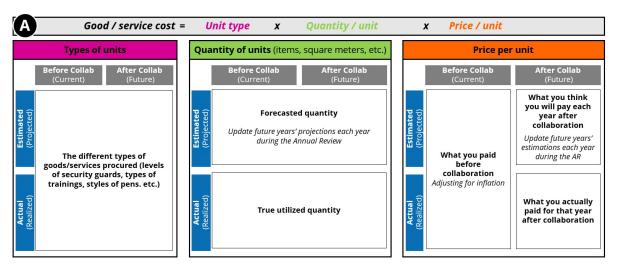
As a strategic framework, the BOS requires that the OMT perform a cost-benefit analysis and estimate (project) the benefits of the agreed common services for a period of 5 (five) years. The BOS also requires reporting realized benefits from using common services effectively.

To decide on the collaboration, at the CBA step, for each of the cost categories applicable (one-time costs, recurring costs, and/or labour costs), entities are expected to provide their <u>estimated costs and volume</u> (a forecasting exercise) to determine the cost & benefit of a common service. It applies to both current costs (which is the cost without collaboration) and future costs (cost with collaboration).

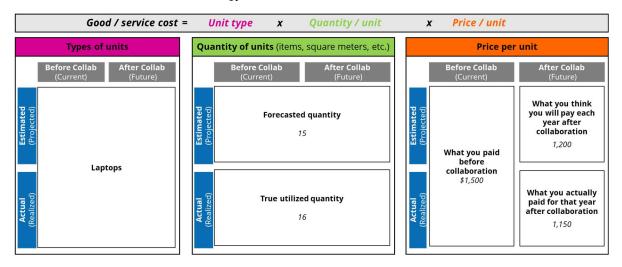
During the BOS annual review, the entities are expected to report on the realized benefits for the past completed year (s) for a common service agreed upon in the BOS.

The estimated and realized benefits are calculated by the entity at the country office level. The below charts are examples of how WFP is calculating recurring monetary costs and labour costs as a reference:

#### **Monetary Cost (Recurring costs):**

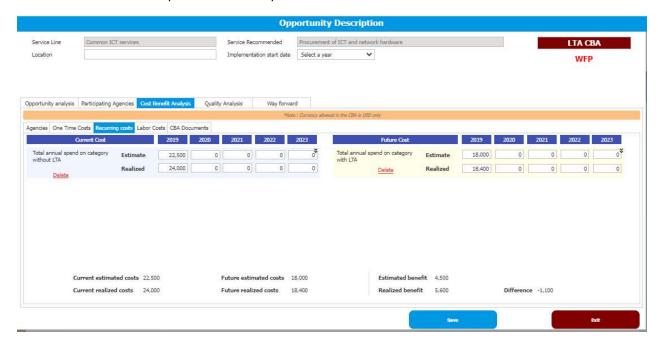


A scenario based on this methodology could be as such:

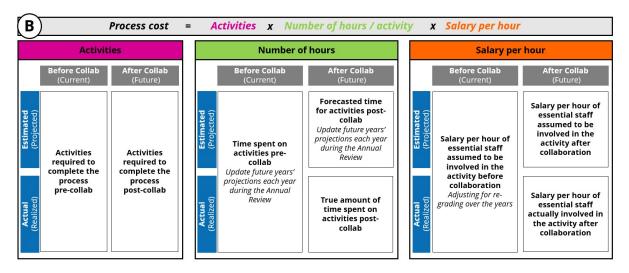


### **Cost Benefit Analysis and Reporting Scenario Examples**

This scenario would be represented on the platform as follows:

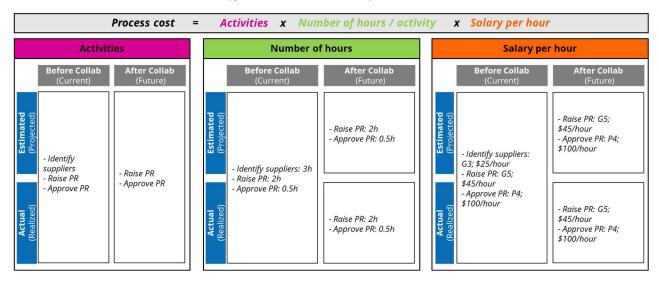


#### Labor costs:

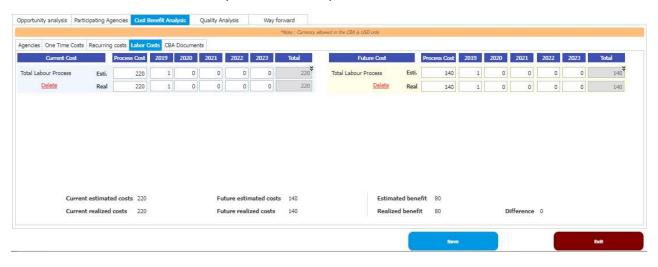


### **Cost Benefit Analysis and Reporting Scenario Examples**

A scenario based on this methodology could be the following:



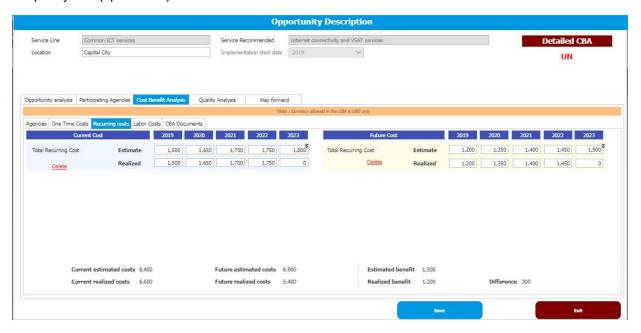
This is how the scenario would be represented on the platform:



### **Cost Benefit Analysis and Reporting Scenario Examples**

#### 5.3. Data entry for past and future years at the platform

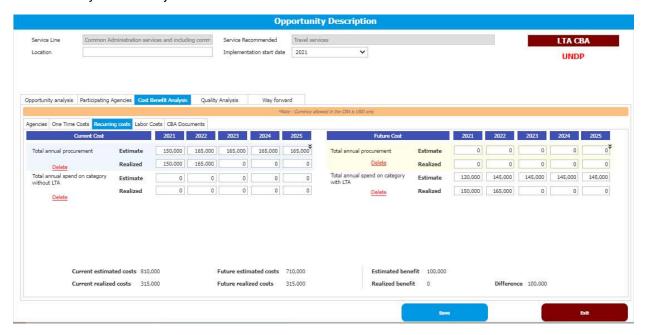
In 2023, all CBA fields will be open to allow adjustment of both estimate and realized costs if needed (optional exercise). Although it is possible to adjust the estimate for future years, the realized costs are restricted to the past years (up to 2022):



### **Cost Benefit Analysis and Reporting Scenario Examples**

#### 5.4. Five (5) years projection in CBA

To the extent possible, entities may estimate cost and volume for the period of 5 years shown in the platform. Having said that, it is not always possible to predict in advance the cost and volume due to varying factors, such as inflation, unstable currency rates, country context, etc. In those cases, entities shall estimate cost and volume for a minimum of two years, and the projection for the second coming year can be extrapolated for the other years and adjusted in the future annual review where needed:



## 5.5 How to conduct CBA and report benefits from an existing individual LTA signed by Entity A and shared with other entities at the country level (piggyback)

Sharing individual long-term agreements (LTAs) can be an easy way to start collaboration at the country level<sup>3</sup>. There are two options for utilizing an existing LTA:

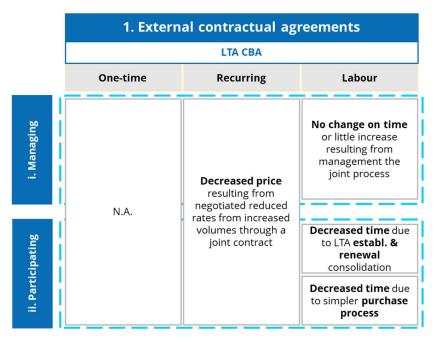
- Managing entity share their LTA with other entities to piggyback without re-tendering/re-negotiating
  the LTA prices with the service provider: The managing entity may not realize benefits from
  collaboration given the LTA is based on single (managing entity volume) and workload for the
  establishment of the LTA remains the same and no economies of scale. However, other entities that
  utilize the LTA will benefit from labour costs and, in some instances, monetary costs.
- 2. Managing Entity consolidate volume of other participating entities and re-tender or re-negotiate<sup>4</sup> the LTA: OMT should ideally establish interagency LTAs, allowing all participating entities to benefit from economies of scale of negotiated rates based on the aggregate volumes of the entities. In this scenario, even if an entity has an existing LTA, re-tending or re-negotiating the LTA may yield monetary cost benefits by acquiring reduced prices from service providers.

<sup>&</sup>lt;sup>3</sup> In view of mutual recognition statement, entities may share existing LTA with each other to enable collaboration, without incurring additional cost to participating entities.

<sup>&</sup>lt;sup>4</sup> Procurement procedures may allow the entity to negotiate services costs based on additional volume. Exception 'interest of organization' where UN System collaborate to avoid duplication, leverage bargaining power and economies of scale

### **Cost Benefit Analysis and Reporting Scenario Examples**

The following scenarios, provided by WFP, indicate the impact of the use of LTAs for both managing and participating entities:



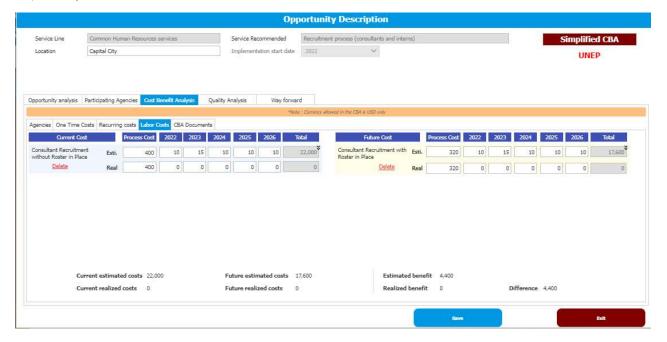
### **Cost Benefit Analysis and Reporting Scenario Examples**

#### 5.6 Changes in volumes

Operational requirements at the country level and guided by the programme delivery requirements can have an impact on the operational volumes. A change in the UNSCDF, the country context, or even the market may impact the efficiencies projected by the entities during BOS development or review.

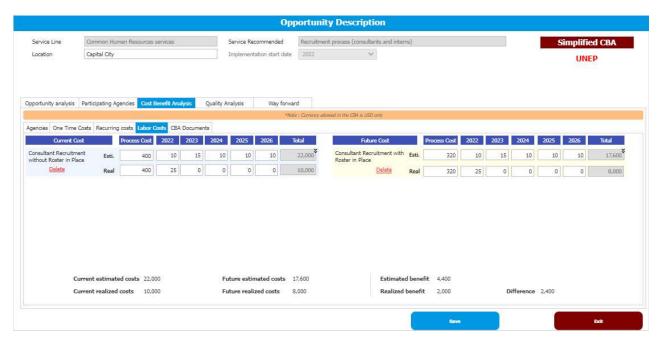
In such cases, reduction or increment in volumes in recurring costs/labor costs (when applicable) shall be reflected in both current costs and future costs fields.

In the example below, the entity estimated an average of 10 consultants recruited every year but already knew that in 2023 an additional number would be needed, as an important event is being organized at the Capital City in 2023:

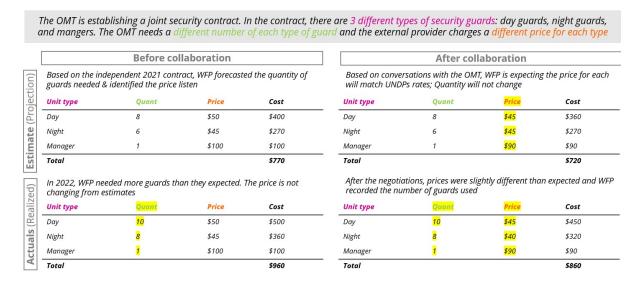


### **Cost Benefit Analysis and Reporting Scenario Examples**

However, a natural disaster happened in the country in 2022, and instead of 10 consultants, the entity had to recruit 25 consultants, to support the governmental response to the hazard. This variance in the number of consultants must be reflected in realized fields for both current and future costs:

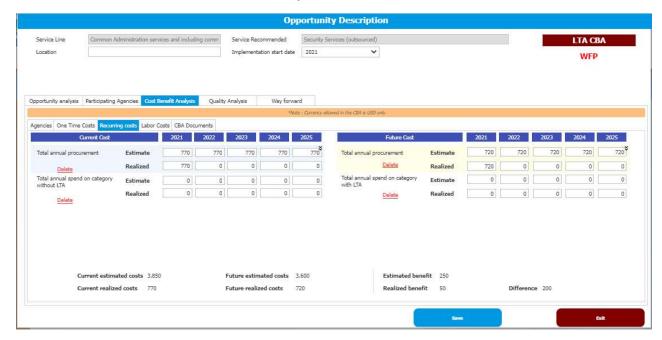


The approach also applies to recurring costs. The following scenario, provided by WFP, gives an example of the calculation of the recurrent costs for security services (outsourced):

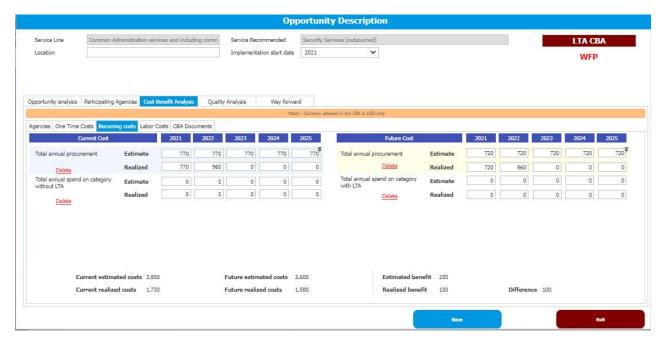


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Based on the calculation above, the WFP country office included the estimates for 2022 as such:



When reporting in 2023, considering that there was a need to increase the number of guards from 15 to 19, as detailed in the scenario, the recurrent costs are expected to be adjusted both at the current and future costs:



A similar approach is to be used in the case that the volumes decrease from the estimate in one year to the realized in the coming year.

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#### 5.7 Calculating Future Discounts (standard rate than percentage)

When planning a common service and calculating the future cost (i.e., a situation where entities are collaborating on a common service and expecting a lower cost), the participating entities shall agree on a fixed discounted rate target as an outcome of their negotiation or joint initiative, rather than a percentage. It is important as a percentage discount in future costs may result in a different value for each entity. For example, three entities acquire travel services from various service providers, each charging the entity a different cost (ref below table). The entities aggregate their volume and aim to re-tender for a joint LTA to reduce the service cost by another \$5. The entity's baseline cost to reduce is the cheapest transaction cost from the current providers.

#### **Entities current cost (Cost without collaboration)**

Entity	Service Provider	Unit Cost per
		transaction
Agency A	Service provider A	\$20
Agency B	Service provider B	\$22
Agency C	Service Provider C	\$18

This is the lowest cost and could be the baseline for future collaboration. Entities may strategize to negotiate this rate further down by \$2 using their aggregate bargaining power, rather than a %

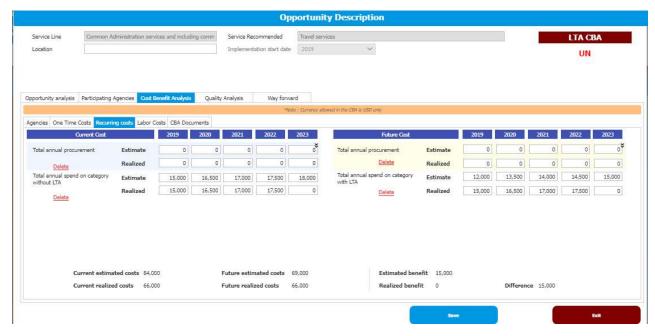
In this scenario – the future cost for all entities may be \$16, and their benefit is 'current cost' minus \$16). This scenario is with an understanding that after a common service is established, the entities will be able to know the exact transaction cost of the new LTA and adjust the cost when reporting realized efficiency.

Entity	Unit Cost per	Unit Cost per	Estimate benefit per
	transaction without collaboration	transaction without collaboration	transaction
Agency A	\$20	\$16	\$4
Agency B	\$22	\$16	\$6
Agency C	\$18	\$16	\$2

### **Cost Benefit Analysis and Reporting Scenario Examples**

5.8 How to record and report realized efficiency if a common service is not established at the agreed "Implementation Start Date."

When planning a common service, the OMT will need to agree on an "Implementation Start Date" by indicating the year when the common service will be established and ready for use. The BOS platform indicates the year in the "Implementation start date" field in the Opportunity Analysis tab. This field cannot be changed for common services already included in the BOS platform during the development of the BOS or during the 2022 annual review. If a common service was not established timely and entities did not utilize it, in this case, all participating entities may reflect a \$0 benefit, as the entities incurred costs without collaboration.



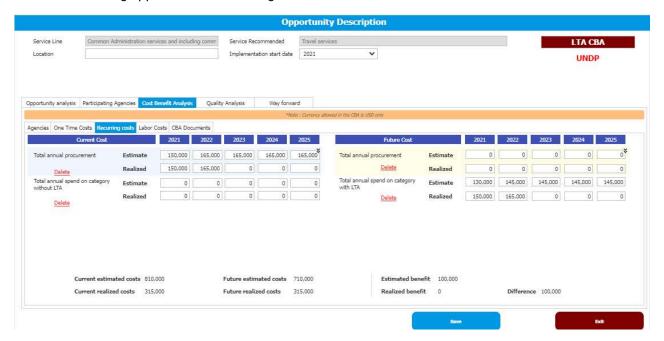
In such a case, it is important that the OMT Working Group reflects on the Planning Framework, the actual timeline for the implementation of the services, identifying what are the activities that are delayed, also agreeing on the necessary measures – and correspondent activities – to be implemented in the coming year to make a common service available.

### **Cost Benefit Analysis and Reporting Scenario Examples**

5.9 How to record and report on realized figures when the common service was made available and entity A, although a participating entity, did not use the common service

The reported benefits of the BOS platform correspond to the effective use of the common service. In the case that the common service was made available by the managing entity but was not used by the participating entity, the participating entity shall report a \$0 benefit. In the CBA tab, the realized efficiencies should reflect the service cost incurred by the entity without collaboration in current and future costs.

This understanding applies to both recurring costs and labour costs.



## 5.10 Global Shared Services / Bilateral services agreed corporately should not be recorded nor reported in the BOS

As a local framework, the BOS shall not include services agreed at the global level (if they are active and in use as a global shared service) nor bilateral agreements signed between entities HQs. Global Shared Services refer to *location-independent* services provided globally across the UN system irrespective of geographical location. Global shared services may be agreed upon at the corporate level based on bilateral agreements signed at the entity HQ level as global solutions. It may be that some global solutions are agreed upon globally but implemented at the country level.

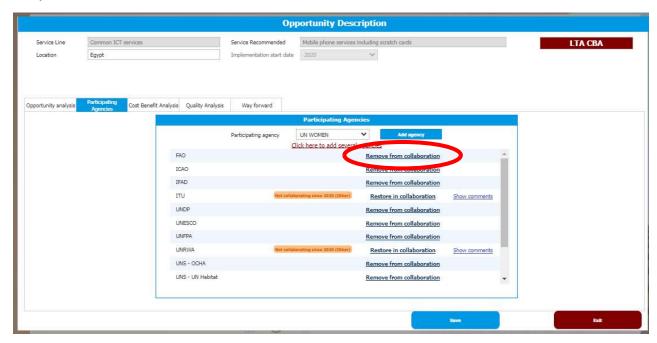
BOS framework should <u>only record common services established locally between two or more participating entities</u>. Bilateral services, based on agreements signed at the entity HQ level as global solutions and implemented at the country level, should not be included in the BOS framework as a common service. During the 2023 annual review, as all data fields will be available for adjustments, it is possible for the entities to exclude from the BOS platform services that are classified for the entity as GSS or bilateral services— such as the global MoU of the RC system with UNDP for the provision of specific services.

Services that are agreed upon at the country level – out of the scope of the global Memorandum of Understanding – shall still be recorded and reported on the BOS platform.

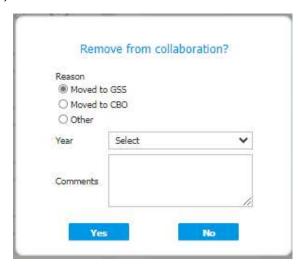
### **Cost Benefit Analysis and Reporting Scenario Examples**

It is possible that service – for example, travel services – has a local component (domestic travel) and a global component (international travel, managed from HQ under a global arrangement). In this case, if the global agreement does not cover the local travel services and the entity collaborates under the BOS on travel common services, the local component of the service may be captured and reported.

For services that were originally local arrangements but moved to a global arrangement, such as the Humanitarian Booking Hub (provided that the entity has signed an agreement with WFP at HQ level). The entity shall discontinue participating in those services in the BOS, as the entity will report efficiency corporately. This action is possible by changing the service provision at the BOS platform and removing the entity from the collaboration, as indicated below:



The BOS platform will then request the user to inform the reason why the entity is being removed from the collaboration (moved to GSS) and since when:



### **Cost Benefit Analysis and Reporting Scenario Examples**

This feature will allow your past collaboration, at the country level, to be still captured at the BOS platform but will not record any new realized efficiencies or estimate benefits beyond the year when the entity moved from a local arrangement to a global service.

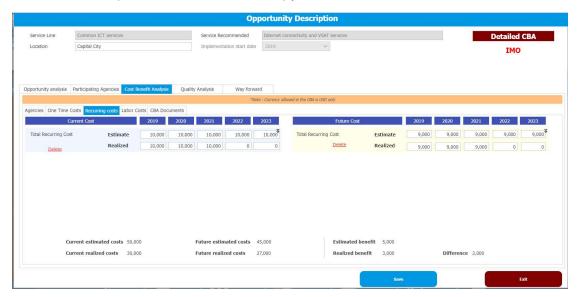
The same approach can be applied to cases when the service provision was moved to an entity-specific global service center / global service unit, such as UNICEF's GSSC (Budapest), UNDP's GSSC (Malaysia), FAO SSC (Budapest), UNHCR Global Service Center (Budapest), among others.

If the entity leaves the common service for any other reason, the option "Other" shall be used, and the rationale for leaving the collaboration shall be documented in the comments.

#### 5.11 Impact of inflation/currency fluctuation on the estimates

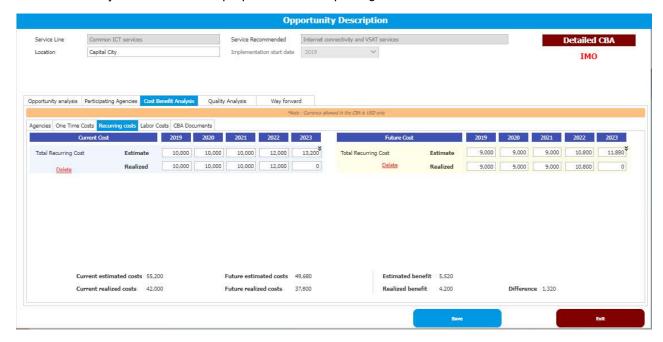
Estimates are projected at least one year before the actual usage of the common service. Therefore, some countries can have situations where the country's inflation and/or currency fluctuation can significantly impact the estimates, making them unrealistic compared to the actual realized costs.

In this case, the necessary adjustments of the impact of inflation and/or currency fluctuation on recurrent costs can be made, bearing in mind that it should be applied similarly to both estimates and realized costs, at both current and future scenarios. As an example, let's use the figures below as a reference. In a given country, the VSAT services were pretty stable, and the collaborating entities were getting a 10% discount on the rates charged by the telecommunication company. Based on that, the estimates were made last annual review considering stable costs for the coming years, as shown below:



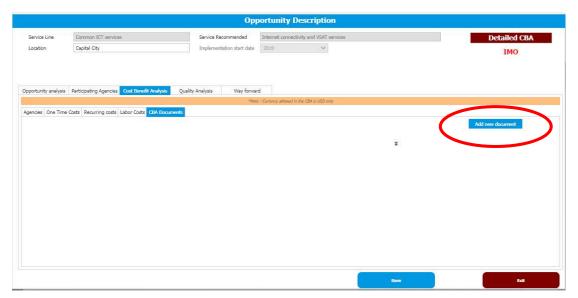
### **Cost Benefit Analysis and Reporting Scenario Examples**

However, in 2022 the country was severely impacted by economic factors, and inflation increased the rates by 20%. In order to reflect the actual costs and the effect of the collaboration, both estimates and realized costs can be adjusted to the same proportion when reporting 2022 benefits:



Estimates for the coming years can also be adjusted if there is sufficient forecast on the expected inflation for the future years – in the case of the example above, the estimate for 2023 foresees inflation of 10%.

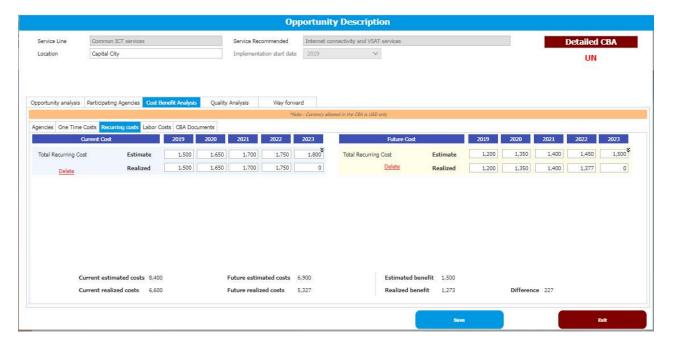
The calculation of the percentage to be applied for this adjustment shall be agreed upon at the country level, taking into consideration the context of the country, the actual cost of the service during the year reported, and the UN Operational Rates of Exchange, among others. It is advisable that the rationale used for this adjustment is added to the CBA documents:



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#### 5.12 Realized benefits higher than the estimated benefits

In a scenario provided by the UN Secretariat, a common service for internet service envisages additional discount rates based on bandwidth usage. The scenario below demonstrates how to indicate that, in this scenario, in 2022, an additional discount of 5% was obtained by the entity based on a higher usage of bandwidth than estimated:

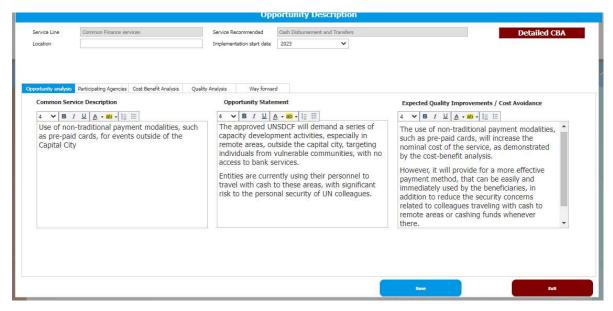


### **Cost Benefit Analysis and Reporting Scenario Examples**

#### 5.13 How to record a Common Service that yields zero (\$0) or negative benefit

The cost-benefit analysis (CBA) helps OMT decide whether a potential common business operation would be cost-effective and informs the common service implementation prioritization. The outcome of cost-benefit analysis either results in cost efficiency and/or enhanced quality.

When comparing the cost of a service undertaken by one single entity versus the cost of a common service, there might be cases where the result of this comparison is \$0 or even negative cost efficiency. Suppose the collaboration is with the intention of cost efficiency. In that case, the entities may exclude the service with zero or negative benefit from the BOS unless participating entities decide to implement the common service with a \$0 or negative efficiency, given other aspects justifying the collaboration, such as increased visibility for the UN, governmental restrictions, service quality enhancements, etc. In those cases, the OMT working groups are requested to capture the reasons for collaboration at the Opportunity Statement:



#### 5.14 Legacy Common Services (common services initiated before 2019)

Common Services or initiatives in place since before 2019 should be recorded in Stock-take with an implementation start date and participating entities reflected. If the service continues beyond 2019 and the participating entities continue to benefit from the collaboration, the efficiency should be recorded by monitoring its cost and quality KPIs. To reflect the cost-benefit, the entities may utilize their 2019 cost as the baseline for cost without collaboration.

#### 5.15 Common Premises initiatives (rent of premises)

The BOS should not record common premises efficiency such as rent. For example, if a UN House was created in 2015, the potential savings from the rent reduction compared to the situation before the UN House must not be reported. Neither should there be a comparison between official market rates and the rental cost of the UN House to create hypothetical cost benefits. Having said that, the BOS should record and report efficiencies created from the utilization of common premises, such as collaboration in cheaper cleaning services, security services, management of common premises, etc.

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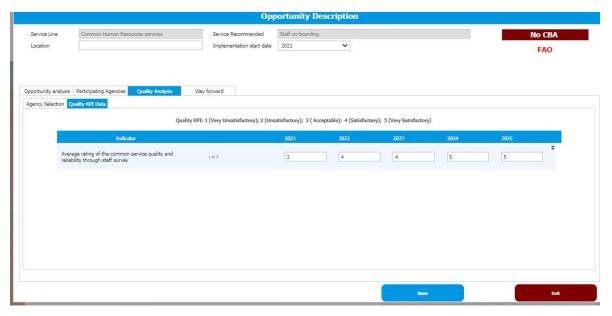
#### 5.16 "Not to do."

Efficiencies should never be calculated in comparison to a market rate. For example, a hotel is booked for a meeting based on a procurement process, and the hotel offers a cheaper rate than they usually do. Any potential savings from this procurement process do not qualify for efficiency savings as we simply chose the best value for money. Realized efficiency gains could, however, be claimed for not having to do the procurement process if an LTA of a sister entity was used to book the hotel. These efficiencies would, however not extend to room rate savings compared to the regular market rate of the hotel.

#### 5.17 No CBA services

The BOS platform has four methodologies for calculating the CBA: detailed CBA, simplified CBA, LTA CBA, and no CBA services. While some common services have a high potential for cost avoidance, others benefit country offices from a quality perspective by being delivered better and faster. Those services are pre-loaded as they do not require a CBA.

As the BOS light review is focused on the reporting of the efficiencies achieved from the collaboration, for the common services with no CBA, quality improvement of the services should be reported for the past and be projected for the future years:



# Cost Benefit Analysis and Reporting Scenario Examples In case any narrative report or evaluation survey is available, it can be uploaded to the BOS documents at the

Kick-off page (optional):

