



BUDGETING APPLICATION TOOL

USER MANUAL

October 2015

EXPAND-TB



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INTRODUCTION

In an effort to streamline budgeting, ordering and management component in laboratories, FIND has developed an online budget application tool to reduce complexity and streamline budgeting procedures for ease of planning and decision making at all levels.

The tool is robust, scalable and flexible to accommodate your current requirement and future enhancement and thus improve efficiency in ordering and budget management while reducing total cost of ownership.

The EXPAND-TB project provided an opportunity for a first application of the budgeting tool, which is currently being used to help quantify the resources required to sustain all the activities of laboratories that have been established or refurbished as part of the project, including those not currently supported by EXPAND-TB, such as microscopy, human resources and equipment maintenance. This will enable to identify resources to support TB laboratory activities in project countries in a sustainable manner after the end of the project.

PROJECT SCOPE

The project provided a fully functional online budgeting tool for FIND that meets the objectives outlined in the Operational requirements.

The Online tool consists of the following components:

- Multiuser Capability (User Registration through an Email Address)
- Laboratory General Settings and Budget Summary
- Microscopy, Processing and Solid Culture
- LPA: Line Probe Assay, Xpert MTB/RIF, Liquid Culture and DST
- Biosafety, Cleaning, Maintenance and Repair
- Human Resource, Quality Assurance and Operations
- Reporting

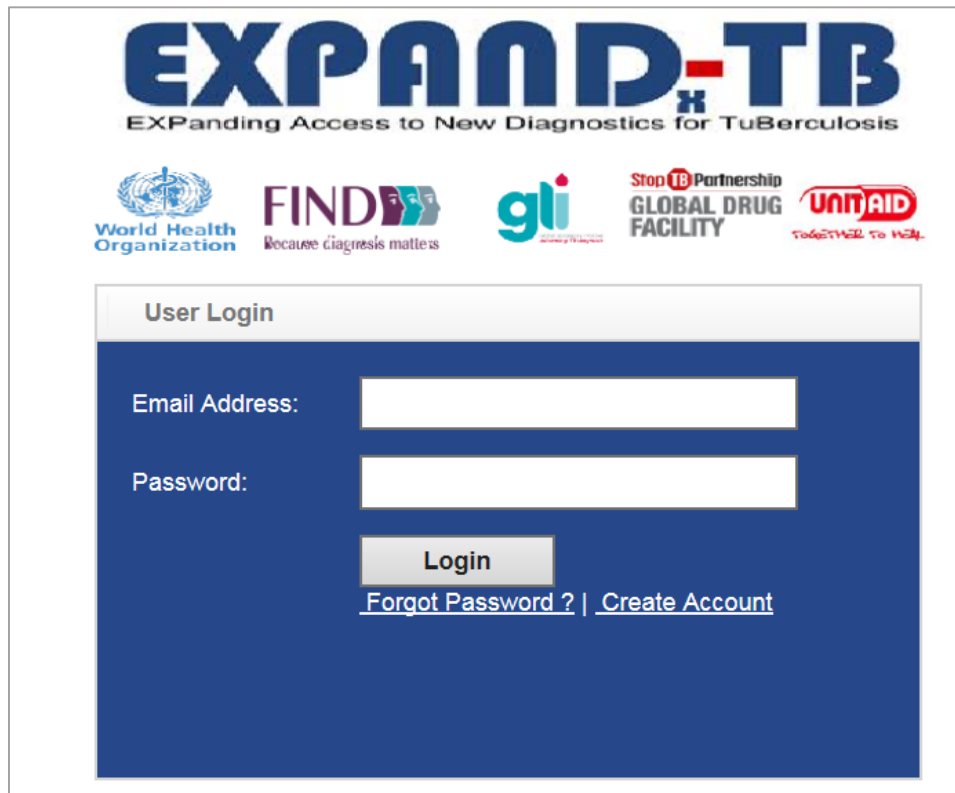


ONLINE BUDGETING TOOL

To access the Online budgeting tool, enter the below Link to your Browser:

<http://www.finddiagnostics-training.org/Budget/index.php/auth>

The link opens the Welcome page with the details as given below:



EXPAND-TB
EXPanding Access to New Diagnostics for TuBerculosis

World Health Organization FIND *Because diagnosis matters* gli *Global Incentive on Innovation for TB diagnosis* Stop TB Partnership GLOBAL DRUG FACILITY UNAID *TOGETHER TO HEAL*

User Login

Email Address:

Password:

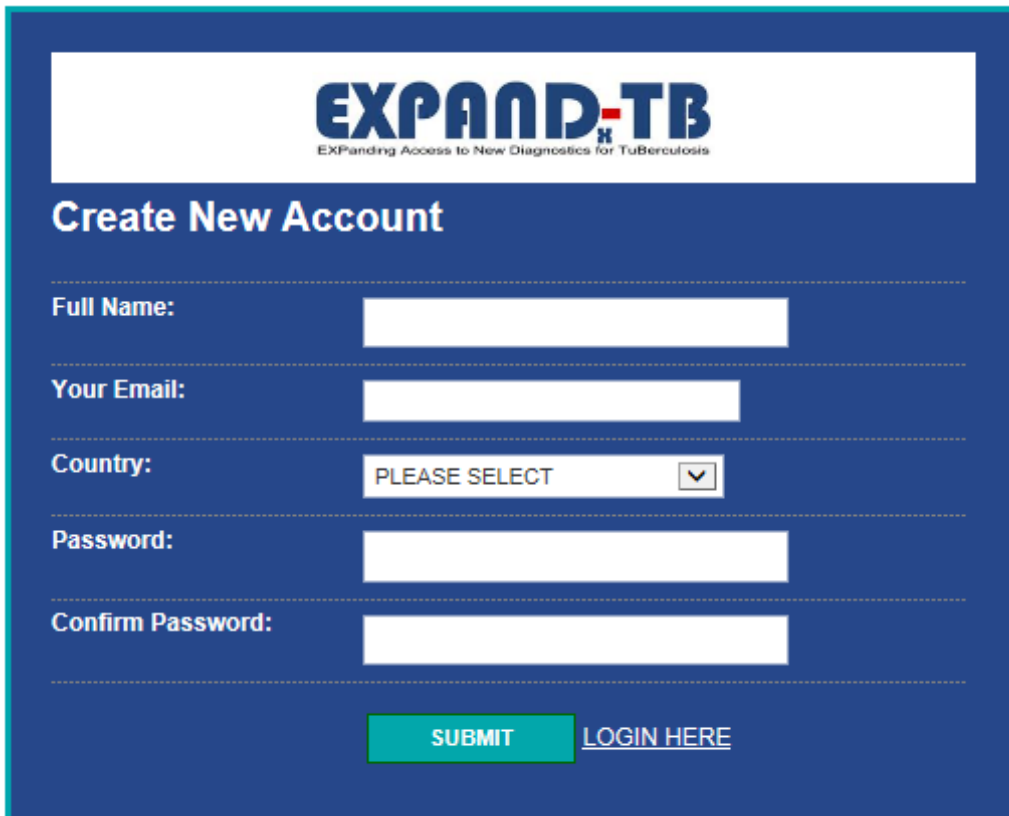
Login

[Forgot Password ?](#) | [Create Account](#)

Account Creation

When accessing the Budgeting tool for the first time, you must create an account to access it. The account creation creates a unique profile that keeps track of all the account activity. The following are the steps to follow when opening an account.

- Click on Create Account on the user login home page.
- Fill in all the details on the create new account page

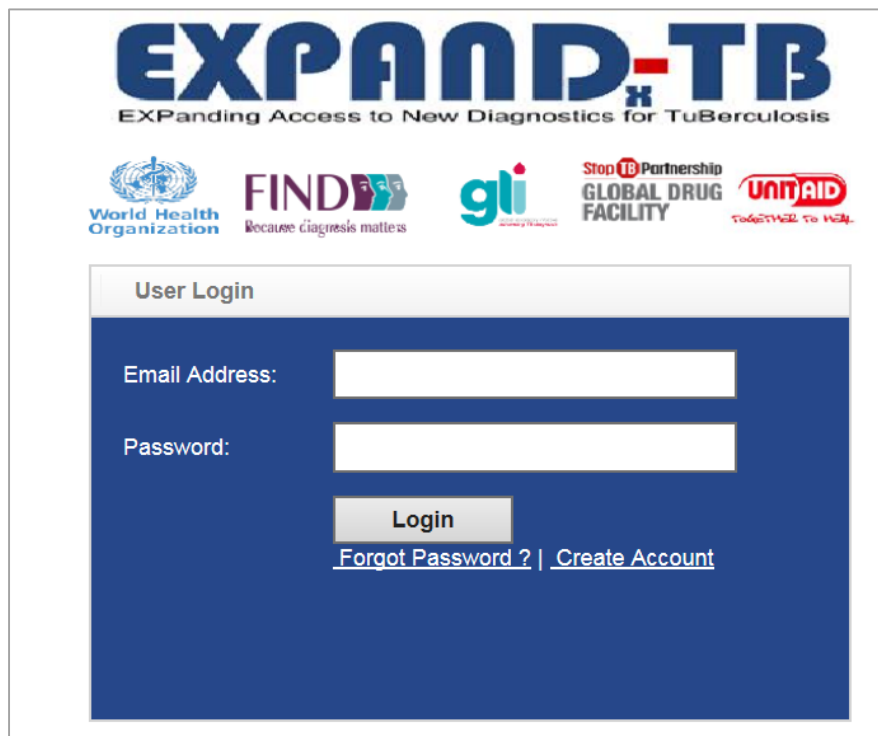


The image shows a screenshot of the 'Create New Account' form for EXPAND-TB. The form is set against a dark blue background with white text and input fields. At the top, the EXPAND-TB logo is displayed, with the tagline 'EXPanding Access to New Diagnostics for Tuberculosis' below it. The main heading is 'Create New Account'. The form contains five input fields: 'Full Name:', 'Your Email:', 'Country:' (a dropdown menu with 'PLEASE SELECT' and a downward arrow), 'Password:', and 'Confirm Password:'. At the bottom, there is a green 'SUBMIT' button and a white 'LOGIN HERE' link.

- Once filled and submitted, you will receive an email to the email that you supplied confirming your registration.

System Login

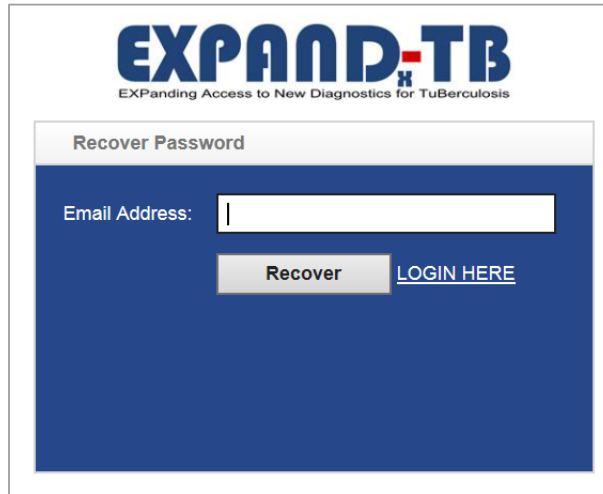
After you have successfully created an account, you can now access the system by using your Email Address and Password created above.



The image shows the EXPAND-TB user login interface. At the top, the logo reads "EXPAND-TB" in large blue letters, with "EXPanding Access to New Diagnostics for TuBerculosis" underneath. Below the logo are five partner logos: World Health Organization, FIND (Because diagnosis matters), gli (Global Incentive on Drugs for TB), Stop TB Partnership Global Drug Facility, and UNIAID (Together to Heal). The main login area is a dark blue box with a white header "User Login". It contains two white input fields: "Email Address:" and "Password:". Below the password field is a grey "Login" button. At the bottom of the login box are two links: "[Forgot Password ?](#) | [Create Account](#)".

Password Reset

In case you forgot your password, Click on Forgot password, enter your email address and click on recover. A password reset link will be sent your email address.

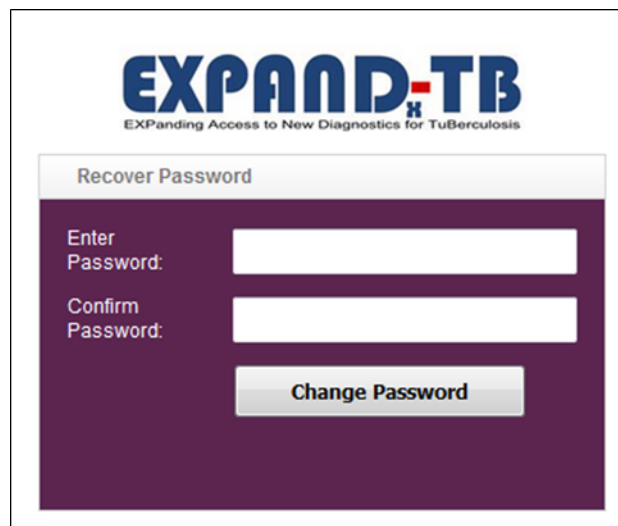


The screenshot shows the EXPAND-TB logo at the top, with the tagline "EXPanding Access to New Diagnostics for TuBerculosis". Below the logo is a white box titled "Recover Password". Inside this box, there is a label "Email Address:" followed by a white input field. Below the input field are two buttons: a grey "Recover" button and a blue "LOGIN HERE" link.



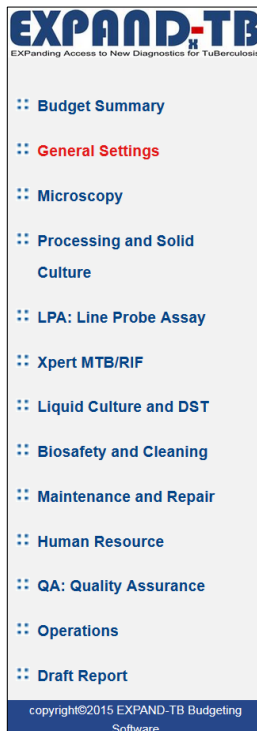
The screenshot shows the EXPAND-TB logo at the top, with the tagline "EXPanding Access to New Diagnostics for TuBerculosis". Below the logo, the text "Email Sent" is displayed in a large, bold font. Underneath, it says "An Email Has been sent To You Click the Link to Change Password." At the bottom of the message is a green "LOGIN" button.

→ Enter a new password and Log in to access your account.



The screenshot shows the EXPAND-TB logo at the top, with the tagline "EXPanding Access to New Diagnostics for TuBerculosis". Below the logo is a white box titled "Recover Password". Inside this box, there are two labels: "Enter Password:" and "Confirm Password:", each followed by a white input field. Below the input fields is a grey "Change Password" button.

Account Setup



The Left Navigation provides different sections of the tool which displays information depending on the selected link.

General Settings:

The general settings section controls different parameters to be applied to the budget summary i.e. time period for which the budgeting is calculated for against the number of staff and the biosafety cabinets.

Budgeting for different test can be activated or deactivated by selecting YES or NO from the drop down along the test name on the Testing Method section. Enter the parameters to set up your lab

At the bottom of the page, there is more settings link that provides with the system user the option for supplying National Trainings and Supervision Unit Costs and the save button once all the data input has been verified.

GENERAL SETTINGS	
PERIOD in Months:	<input type="text" value="0.01"/>
Number of Staff in the Lab	<input type="text" value="0.0001"/>
Number of Biosafety Cabinet	<input type="text" value="0.0001"/>
<hr/>	
TESTING METHODS	
Choose which method you use in the laboratory from the drop down lists below (YES/NO)	
<hr/>	
PROCESSING	<input type="text" value="YES"/>
Which Lowenstein-Jensen medium	<input type="text" value="From Component"/>
Which decontamination method	<input type="text" value="NALC/NaOH"/>
<hr/>	
LINE PROBE ASSAY	<input type="text" value="YES"/>
<hr/>	
LIQUID CULTURE	<input type="text" value="YES"/>
<hr/>	
DRUG SUSCEPTIBILITY TESTING	<input type="text" value="YES"/>
<hr/>	
XPRT MTB RIF	<input type="text" value="YES"/>
<hr/>	
MICROSCOPY	<input type="text" value="YES"/>
More Settings	<input type="button" value="Save Settings"/>

The More Settings section can be accessed by clicking on the more settings link which opens in a pop up below

MORE SETTINGS

National Trainings and Supervision Unit Costs

Per diems for international experts/facilitators (per person and per day) (UN 05/2013+10%)	0.01
Per diems for national experts/facilitators (per person and per day)	0.01
Per diem for local participants (average per person and per day)	0.01
Daily fee for international expert/facilitators (per person and per day)	0.01
Per diem for support staff (per person and per day)	0.01
Travel costs for international experts/facilitators (per person)	0.01
Travel costs for nationalexperts/facilitators (per person) in per diem	0.01
Cost of transportation (per international expert/facilitator)	0.01
Cost of transportation (per national expert/facilitator) in per diem	0.01
Cost of transportation (per participant) in per diem	0.01
Cost of hotel capital (per person and per day) in per diem	0.01
Costs of hotel periphery (per person and per day) in per diem	0.01
Costs of refresher and lunch (per day and per person)	0.01
Cost of room rental (per day)	0.01
Cost of stationary and training material (per session)	0.01

International Trainings Unit Costs

Per diem (per person and day)	0.01
Costs for airfare (per participant)	0.01
Costs CXC	0.01

Save Cancel

On Data submission, the system will confirm by displaying a message whether data input has been saved successfully or not. The red warning line (Some Parameters have Zero value, kindly update them) is informational and will disappear once all the fields for a section has been fully populated.

General Settings

successfully saved

Some Parameters have Zero value kindly update them

GENERAL SETTINGS	
PERIOD in Months:	12
Number of Staff in the Lab	5
Number of Biosafety Cabinet	4

Microscopy

Microscopy section can be accessed by clicking on 'Microscopy' on the left navigation.

On the microscopy section, the total cost for per smear, total amount microscopy can be calculated by specifying the number of smears for the period specified on the general settings. The system automatically computes and displays an itemized list of the required quantities to conduct the specified number of tests for the given period.

Microscopy

Items

Parameters

Name	Value
Number of smears from culture	1
Total number of smears for the period	1
Number of smears for the period	<input type="text" value="0.0001"/>

SAVE



Calculation formula:

1. Number of smears from culture

((Liquid Culture and DST: Number of total test for the period including contamination and repeat) *
 (Processing and Solid Culture: Average volume per specimen in ml, to be decontaminated) *
 (Processing and Solid Culture: % of MTB positive))

2. Total Amount Microscopy

((Total amount Reagents Item 1) + (Total amount Reagents Item 2))

Items					
ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
Basic fuchisine, 100g (bottle)	100	2	63	126	Carbol Fuchsin: 5ml per slide, includes +10%
Methylene blue, 100g (bottle)	100	2	109	218	Methylene Blue: 5ml per slide, includes +10%
Phenol crystals colourless, 5kg	5000	1	96	96	includes +10%
Ethanol, 96%, 2.5L (bottle), for stain solutions	2500	3	7	21	includes +10%
Ethanol, 96%, 2.5L (bottle), for decolourization	2500	29	7	203	Decolourization: 7ml per slide, includes +10%
Hydrochloric acid, 2.5L (bottle)	2500	1	27	27	includes +10%
Total amount				691.00	
Cost for Microscopy1				0.0667	

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
Applicator sticks, if loops are not available, pack of 1000	1000	12	4.1	49.19	includes +10%
Microscope slides, lime-soda-glass, pack of 50	50	228	2.73	623.03	includes +10%
Immersion oil, 500ml	500	3	40.99	122.97	includes +10%
Lens tissue (paper), 50 pages/block, 10 blocks/pack	500	7	36.89	258.23	includes +10%
Filter paper (diameter 150 mm), 100 per pack	100	2	9.56	19.13	includes +10%
Methylated ethanol for spirit lamps, bottle of 2.5 L	2500	1	3	3	
Marker pen (water-resistant)	1	2	6.83	13.66	
Sputum containers, pack 100	100	114	11	1254	includes +10%
Total amount				2,343.21	
Cost for Microscopy2				0.2261	

SUMMARY	
Total amount microscopy:	3,034.21
Cost per smear:	0.29

Processing and Solid Culture

Processing and Solid Culture section can be accessed by clicking on 'Microscopy' on the left navigation to fill in the details on the parameters section. The provision calculates the items required in an itemized format, a summary and a detailed calculation description for each section.

Processing & Solid Culture

Items

Parameters

Name	Value
Number of slant produced with standard batch	324
Number of Batch for the period	1
Number of slants used for 1st line DST	1
Number of slants used for 2nd line DST	1
Total number of slants for DST	2
Number of samples for the period	<input type="text" value="0.01"/>
Number of slants used per sample	<input type="text" value="0.01"/>
Repetition rate	<input type="text" value="0.01"/> %
Contamination rate	<input type="text" value="0.01"/> %
Average volume of L-J media per tube	<input type="text" value="5"/>
% of MTB positive	<input type="text" value="0.01"/> %
Number of drugs tested for 1st line DST	<input type="text" value="0.01"/>
Number of controls for 1st line DST	<input type="text" value="0.01"/>
% of positive cultures subjected to 2nd line DST	<input type="text" value="0.01"/> %
Number of drugs tested for 2nd line DST	<input type="text" value="4"/>
Number of controls for 2nd line DST	<input type="text" value="3"/>
	<input type="button" value="SAVE"/>

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
106259 Ready-to-use mix, 500g	0.5	0	109.42	0	ready mix LJ : 37.5 g per batch
Glycerol >99% purity, 1 litre	1	0	15.79	0	12 ml per batch
Fresh eggs fed without growth factors (antibiotics),	1	0	0.2	0	25g per 1600 ml of final solution
Potassium dihydrogen phosphate, KH ₂ PO ₄ , MW: 136.09, 1 kg	1	1	32.49	32.49	2.4g per batch
Magnesium sulfate-heptahydrate, MgSO ₄ • 7H ₂ O, MW: 246.48, 500g	0.5	1	34.81	34.81	0.24g per batch
L-Asparagine-momohydrate, C ₄ H ₈ N ₂ O ₃ • H ₂ O, MW: 150.13, 250g	0.1	1	50.06	50.06	3.6g per batch
Tri-Magnesium di-citrate nonahydrate, Mg ₃ (C ₆ H ₅ O ₇) ₂ • 9 H ₂ O, 500g	0.1	1	55.79	55.79	0.6g per batch
Malachite green oxalate, 100 g	0.1	1	56.87	56.87	0.4g per batch
Glycerol >99% purity, 1 litre	1	1	15.79	15.79	12ml per batch
Fresh eggs fed without growth factors (free from antibiotics)	1	375	0.11	41.25	25 per 1600 ml of final solution
Total amount				287.06	
Cost for Solid Culture				23.9217	

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
di-Sodium hydrogen phosphate anhydrous, Na ₂ HPO ₄ , MW: 141.96 - 1kg	1	1	84.66	84.66	4,74 g for 1 liter of final mix buffer + 50% extra - Calculation done for 40 ml of final mix per specimen in average
Potassium dihydrogen phosphate, KH ₂ PO ₄ , MW: 136.09 - 1Kg	1	1	32.49	32.49	4,54g/l for 1 liter of final mix buffer + 50% extra - Calculation done for 40 ml of final mix per specimen in average
Sodium hydroxide, NaOH, MW 40.00, purum ? 98%, pellets - 1Kg	1	0	31.46	0	40g per 1 liter of specimen
N-acetyl-L-cysteine (NALC), C ₅ H ₉ NO ₃ S, MW: 163.19, puriss. ? 99% - 100g	0.1	1	106.5	106.5	5g per 1 liter of specimen
Tri-Sodium citrate dihydrate, C ₆ H ₅ Na ₃ O ₇ • 2H ₂ O, MW: 294.10 - 1Kg	1	1	69.74	69.74	14.5g for 1 liter of final mix buffer
Sodium hydroxide, NaOH, MW 40.00, purum ? 98%, pellets - 1Kg	1	1	31.46	31.46	20g for 1 Liter of final mix buffer
PP-tubes for centrifuge, sterile, 50 ml	500	1	108.01	108.01	1 tube per sample + 10% extra
Disposable pasteur pipettes, graduated, non sterile, 155 mm	500	1	16.87	16.87	1 pack per year
Total amount				449.73	
Cost for Processing				37.4775	



ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
DST laboratory, chemicals: 5g Isoniazid	1	1	23	23	You need 1 ml of Solution I per batch of 28 tubes (200ml of media containing drug at 7ml per tube). 10mg is needed to prepare 100ml of Solution I. 1.1ml aliquots of Solution I
DST laboratory, chemicals: 1g Rifampicin	1	1	82	82	You need 2.5 ml of Solution I per 28 tubes (200ml of media containing drug at 7ml per tube). 41.2mg is needed to prepare 100ml of Solution I. Rifampicin Solution I needs to be
DST laboratory, chemicals: 25 g Ethambutol	1	1	96	96	You need 5 ml of Solution I per batch of 28 tubes (200ml of media containing drug at 7ml per tube). 13.6mg is needed to prepare 50ml of Solution I. 5.5ml aliquots of Solution I
DST laboratory, chemicals: 5g Dihydro-streptomycin	1	1	25	25	You need 10 ml of Solution I per batch of 28 tubes (200ml of media containing drug at 7ml per tube). 12.77mg is needed to prepare 25ml of Solution I. One aliquot of about 12ml
Total amount				226	
Cost for First line drugs				18.8333	

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
DST laboratory, chemicals: Ofloxacin/Ciprofloxacin, 1 g	1	1	63	63	You need 1 ml of Solution I per 42 tubes (300ml of media containing drug at 7ml per tube). 24mg is needed to prepare 100ml of Solution I. Solution I needs to be prepared fresh
DST laboratory, chemicals: Protionamid (4-n-Propyl-4-Heptanol), 99%, 2 g	1	1	59.64	59.64	You need 2.5 ml of Solution I per 28 tubes (200ml of media containing drug at 7ml per tube). 41.2mg is needed to prepare 100ml of Solution I. Rifampicin Solution I needs to be
DST laboratory, chemicals: Kanamycin, 1 g	1	1	49.7	49.7	You need 2 ml of Solution I per 28 tubes (200ml of media containing drug at 7ml per tube). 39.5mg is needed to prepare 10ml of Solution I. 1.1ml aliquots of Solution I should be
DST laboratory, chemicals: capreomycin, 1 g	1	1	282.94	282.94	You need 2 ml of Solution I per 28 tubes (200ml of media containing drug at 7ml per tube). 62.5mg is needed to prepare 10ml of Solution I. 1.1ml aliquots of Solution I should be
Total amount				455.28	
Cost for Second line drugs				37.94	

The summary section shown below displays the sum total for the Solid Culture, Cost of Processing, cost for first line drugs and cost for second line drugs.

Total Processing = (Solid Culture + Cost of Processing + cost for first line drugs + cost for second line drugs)

Total per Sample = ((Total Processing / Number of Samples for the Period)

SUMMARY	
TOTAL PROCESSING:	1,418.07
TOTAL per sample:	118.17

Line Probe Assay (LPA)

LPA: Line Probe Assay section can be accessed by clicking on 'LPA: Line Probe Assay' on the left navigation to fill in the details on the parameters section. The section has a drop down list to select the LPA equipment used in the Laboratory (Twincubator or GT Blot) and Batch related data as shown below.

LINE PROBE ASSAY USING HAIN KITS V2

Items

Parameters

Name	Value
Average size of a batch	0.0002
Number of batch for the period	1
Total number of specimen to process	0.0001
Number of Test - Sub Total	0.0002
Total number of tests to be done for the period	1
Total number of test to order round up to unit per pack of the kit	96
Genotype MTBDRPlus (96 tests/kit) kits required	1
Number of batch per week	<input type="text" value="0.0001"/>
Number of specimen in one batch	<input type="text" value="0.0001"/>
No of controls per batch	<input type="text" value="0.0001"/>
No of tests coming from Liquid Culture for DST with LPA	<input type="text" value="0.0001"/>
estimated % of repetitions	<input type="text" value="0.0001"/> %
Number of extra test per batch for pipetting error	<input type="text" value="0.0001"/>
LPA Equipment used in the laboratory	<input type="text" value="TWINCUBATOR"/>
Choose if you use Combitips or No Combitips	<input type="text" value="NO COMBITIPS USED"/>
<input type="button" value="SAVE"/>	

Data supplied above calculates and displays an itemized list of the items required, quantity, and pricing per item, a total amount for LPA and the total per LPA test as shown below.

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
Geno Type MTBDRplus (96 tests/kit), Version 2.0 (30496A)	96	355	1008	357840	
GenoLyse (96 tests), Version 1.0 (51610)	96	355	0	0	
Molecular grade water - 10 x 1.7ml	17	6	170.4	1022.4	Volume needed is 505 ul per batch -
PCR tubes, 0.2 ml with attached caps, sterile, DNase- RNase-free, 1000 per pack	1000	36	45.41	1624.95	1 tube per test + 5%
Cryo-vial, sterile with cap, 1.5 ml	1000	1	403.4	403.4	"1 tube per test if standard reaction tube - 2 tubes per test if cryo-vial - + 5%extra - Choose Here =>"
Cryo-vial, sterile with cap, for one hand operation	1000	0	323.27	0	If standard reaction tube is used, cryo-vial are needed for storage purpose
Cryo-tags, sized to fit for use on cryo-tubes,	1000	1	34.38	34.38	1 tag per vial
DNase-/RNase-free TIPS, for pipettes 0.1 - 10 ÅÅul	480	0	108.4	0	2 tip per tests + 5% extra to add supernatant to PCR Tubes and n x 5 ?l DNA
DNase-/RNase-free TIPS, for pipettes 20 - 200 ÅÅul	960	3	92.87	190.15	2 tips per test for DNA Extraction - 2 tips per batch for amplification - 1 tip per batch to add DEN - 1 tip per test to add DNA/amplicon - if twincubator 2 tips for SUB/CONJ + 5% extra
Sterile, DNA-/RNase-free TIPS 100 - 1000 ÅÅul	960	0	61.3	0	1 tip per batch for mastermix + 5% extra
Long 1 ml tips with filter	800	0	136.23	0	2 tips to add/discard decontaminated specimen - only for twincubator : 2 tips per batch to add Hybridisation and STR + 8 tips per batch to add RINS (3), WATER (3), SUB(1) CONJ (1)
Combitips for Multipette 12.5 ml	100	0	60.65	0	Alternative to Long 1ml tips - 8 tips per batch to add RINS (3), WATER (3), SUB(1) CONJ (1) +5% extra
Disposable pasteur pipettes, graduated, non sterile, 155 mm	500	7	16.87	110.53	
Forceps plastic	100	13	15.46	192.94	2 per batch
Marker pen, water resistant	1	119	1.84	217.73	1 pen for 3 kits
PP-tubes for centrifuge, non sterile, 15 ml	500	5	95.25	475.49	4 tubes per batch (diluting CON and SUB + HYB + STR)
PP-tubes for centrifuge non sterile 50 ml	500	7	76.22	475.61	3 tubes per batch - 5 tubes if GT Blot 48 (decontamination)
Plastic bags, disposable PP, 100 pieces per pack	100	11	13.19	139.29	4 per working days
Filter paper - sheets	100	22	138.39	2922.8	8 per working day
GT-Blot 48 reagent kits	1	7	0	0	1 kit for 3 LPA kit if GT BLOT-48
GT-Blot 48 Tray for 96 strips (black)	1	18	4.06	73.08	1 tray for 10 batches + 20%
Sodium Hypochloride - 1 Kg - 14% activity	1	4	24	91.24	200 ml per day of final solution - 72 gr per liter
Single-use paper towels	4500	3	18.16	42.62	40 per day
Ethanol / Isopropanol - 1 Liter	5	11	11.68	121.38	1 Liter per week
Total amount				365,977.99	
Cost for LPA test				3.26	

SUMMARY	
Total Amount for LPA:	365,977.99
Total per LPA test:	25.50

Xpert MTB /RIF

Xpert MTB/RIF section can be accessed by clicking on 'Xpert MTB/RIF 'on the left navigation.

Xpert MTB/RIF

Items

Parameters

Name	Value
Number of tests for repetition	1.0E-10
Number of total test for the period including repeated tests	0.0001000001
Number of Xpert MTB/RIF tests for the period	<input style="width: 80%;" type="text" value="0.0001"/>
Expected unsuccessful test rate (%)	<input style="width: 80%;" type="text" value="0.0001"/> %
<input type="button" value="SAVE"/>	

Parameters section provides for the number of Xpert MTB/RIF tests for the period and expected unsuccessful test rate (%) when supplied calculates the list below

- Number of tests for repetition
- Number of total test for the period including repeated tests
- Items required for the test (Name, Quantity, Unit Cost and Calculation Details) and
- Summation (Total Amount to run the tests and the cost per test)

Xpert MTB/RIF

Items

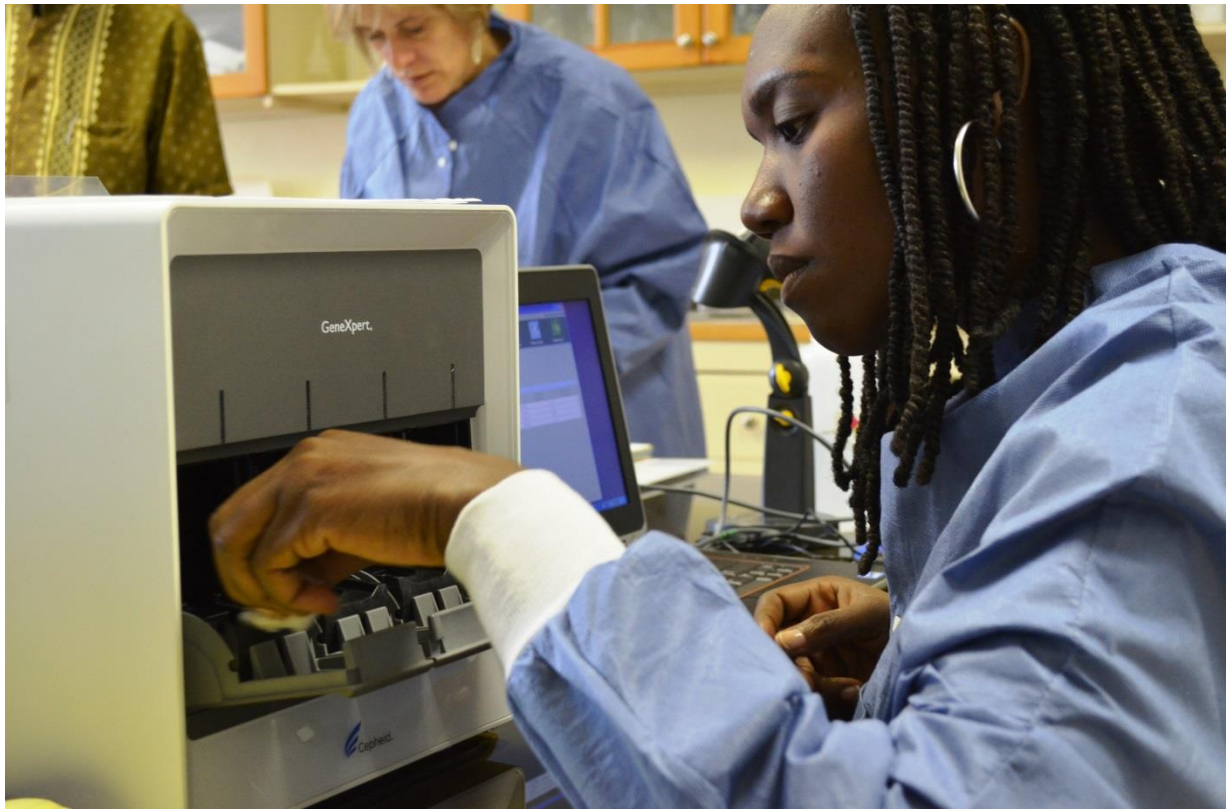
Parameters

Name	Value
Number of tests for repetition	4
Number of total test for the period including repeated tests	204
Number of Xpert MTB/RIF tests for the period	<input style="width: 80%; background-color: yellow;" type="text" value="200"/>
Expected unsuccessful test rate (%)	<input style="width: 80%; background-color: yellow;" type="text" value="2"/> %
<input type="button" value="SAVE"/>	

Items

ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
Xpert MTB/RIF cartridges	10	21	100	2036	
PP-tubes for centrifuge, sterile, 50 ml	500	0	109	0	Use either PP-tubes or normal containers and set the other to "0". Includes +10%
Sputum containers, pack 100	100	3	11	25	Includes +10%
Total amount				2,061	
Cost for xpertmtb				5	

SUMMARY	
Total amount :	2,061
Cost for one Xpert MTB/RIF test:	10



Liquid Culture and DST

Liquid Culture, Drug Susceptibility and PZA testing parameters provides an itemized list with the name, Quantity and calculation details for Liquid Culture and Drug Susceptibility Testing. The system automatically calculates the Cost for Liquid Cultures, Cost for Drug Susceptibility Testing and total cost liquid culture & DST on the summary section as shown below.

Liquid Culture and DST	
Items	
Parameters	
Name	Value
Number of total test for the period including contamination and repeat	2
No of TB cultures for the period	1 <input type="text"/>
Expected contamination rate for liquid Media	0.01 <input type="text"/> %
Expected repeat rate / sub culture (%)	0.01 <input type="text"/> %
% of MTB positive culture	0.01 <input type="text"/> %
SIRE No of strains to be tested	0.01 <input type="text"/>
Expected repeat rate for SIRE (%)	0.01 <input type="text"/> %
PZA No of strains to be tested	0.01 <input type="text"/>
Expected repeat rate for PZA (%)	0.01 <input type="text"/> %
<input type="button" value="SAVE"/>	



Items

Liquid Cultures ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
BBL MGIT Tubes for use in Bactec MGIT 960 (7ml) - 100 tubes/pkg	100	41	195	7986	1 tube per test
BACTEC MGIT 960 Supplement Kit (100 tests, PANTA and OADC combined)	100	41	71	2908	1 tube per test
Culture tubes, diameter 16 mm,	100	5	35	144	10% exchange per year
PP-tubes for centrifuge, sterile, 50 ml	500	9	108	885	Same than processing 0 if processing 1 tube per test
Single use plastic Pasteur-pipettes sterile individually packed	500	11	43	454	For inoculation + contaminated tube + positive tube + repeat rate +10% extra
Disposable loops 10 Åµl	500	2	25	44	1 per positive
Cryo-vial, sterile with cap, 2 ml	1000	1	324	85	30% of positive
Cryo-tags sized to fit for use on cryo-tubes, rolls of 1000	1	1	35	10	
Deep freeze storage box with lid for 1.5 / 2 ml cryovials , autoclavable PP	1	4	3	9	81 position in a box - for storage of cryovial
Petri-dishes plastic	480	1	37	19	1 petri dish for 4 positive + 20% contaminated tubes
Rapid test for Detection of MPT 64 Antigen	25	52	35	1813	1 test for each positive and contaminated
Brain Heart Infusion agar	0.5	1	114	114	1 pack per year
Plastic-foil	1	2	55	109	2 rolls per year
Total amount				14,573.27	
Cost for Liquid Cultures				1.56	

Drug Susceptibility Testing ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
BACTEC MGIT 960 SIRE kit, One kit is sufficient for 40 test	40	23	73	1670	
BBL MGIT Tubes for use in Bactec MGIT 960 (7ml) - 100 tubes/pkg	100	46	195	8958	5 tubes per test
TIPS, PP, 20-200 µl, sterile, autoclavable with Filter	960	2	93	174	
TIPS, PP, 100-1000 µl, sterile, autoclavable with Filter	960	2	62	115	
Dispenser-tips Universal 10ml sterile	100	4	107	338	
BACTEC MGIT PZA Kit	50	19	91	1665	
BACTEC MGI PZA Tubes - 25	25	74	54	3936	
TIPS, PP, 20-200 µl, sterile, autoclavable with Filter	960	2	93	94	
TIPS, PP, 100-1000 µl, sterile, autoclavable with Filter	960	2	62	62	
Total amount				17,008.37	
Cost for Drug Susceptibility Testing				1.82	

SUMMARY	
Cost for Liquid Cultures	14,573.27
Cost for Drug Susceptibility Testing	17,008.37
TOTAL COST LIQUID CULTURE & DST:	31,581.64

Biosafety and Cleaning

With the given period, number of staff and the number of Biosafety Cabinets specified on the general settings, the system calculates and displays an itemized list of all the Biosafety and Cleaning items required to carry out the exercise for the period as shown below. I.e. with 4 Biosafety cabinets, 10 Staff in 12 months, you require the following items.

Biosafety AND Cleaning						
Items						
Parameters						
Items						
BIOSAFETY	ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
	Hair Cover	2000	2	32	42	1 per day per staff
	Shoe cover	1000	11	16	168	4 per day per staff
	Laboratory coat size L - Disposable - Sterile	100	2	318	546	0.33 per week per staff
	Laboratory coat size M - Disposable - Sterile	100	4	318	1091	0.66 per week per staff
	Laboratory coat size S - Disposable - Sterile	100	2	318	546	0.33 per week per staff
	Latex gloves size L	1000	9	51	438	10 per staff per day
	Latex gloves size M	1000	18	51	876	10 per staff per day
	Latex gloves size S	1000	9	51	438	10 per staff per day
	Masks 3M 9320	10	52	25	1299	2 per staff per week
	Surgical gowns non sterile - Size L	20	11	73	749	1 per BSC per week
	Surgical gowns non sterile - Size M	20	11	73	749	1 per BSC per week
	Surgical gowns non sterile - Size S	20	11	73	749	1 per BSC per week
	Emergency spill-kit	1	2	34	68	2 per year
	First aid kit	1	1	328	99	1 per 3 years
Cost for BIOSAFETY					7,851.42	

CLEANING	ITEMS	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
	Aluminum foil	1	2	86	172	1 roll per 6 months
	Cotton wool	1	6	8	45	1 roll per 2 months
	Plastic bags, biohazard waste - 30L	200	7	99	650	3 per day for changing room+ 1per BSC
	Plastic bags made from PP - 200x300mm	100	22	14	279	2 per day per BSC
	Transparent polypropylene waste bag - size 420x600mm	1000	1	342	271	3 per day
	Single-use paper towels - pack of 4500	1	6	19	109	1 per 2 months
	Sterile indicator tape, autoclave	1	8	3	18	2 per quarter
	Sterile indicator tape, hot air oven	1	8	14	109	2 per quarter
	Tissue pulp	50	22	32	658	2 per BSC per day
	Tube brush	5	1	45	1	for culture - 1 per 500 cultures
	Disinfectant for BSCs surface	1	16	37	590	1 bottle per quarter per BSC
	Disinfectant for floors	1	4	24	93	1 per 2 months
	Disinfectant for hands, 1l	1	24	11	242	2 per month
	Ethanol / Isopropanol - 5L	1	8	12	94	2 bottle per quarter per BSC
	Phenol - 1Kg	1	7	98	643	25g per day
	Liquid soap	1	37	4	118	3 per month
	spray head	2	2	11	21	4 per year per bsc
Cost for CLEANING					4,104.71	

SUMMARY	
Cost for BIOSAFETY	7,851.42
Cost for CLEANING	4,104.71
Total Cost:	11,956.13

Maintenance and Repair

To calculate the Costs for equipment service & maintenance contracts, the system provides a list of editable list of commonly used equipment in the laboratory with a tab (Manage items) to add or remove an item as you wish. Summation is dependent on the values input (Number of equipment, unit cost, and service cost per year.)

Maintenance and Repair				
Items Manage Items				
Parameters				
Costs for Equipment service & maintenance contracts				
Equipment	No. of units	Unit costs (USD)	Service costs for one year (USD)	Service costs (10% of value)
Biosafety cabinets Service contract 1 year	0	0	0	0.00
Biosafety cabinets Spare parts	0	0	0	0.00
Biosafety cabinets Travel/accomodation technician	0	0	0	0.00
Twincubator(LPA) Service contract 1 year	0	0	0	0.00
Twincubator(LPA) Spare parts	0	0	0	0.00
Thermocycler Service contract 1 year	0	0	0	0.00
Thermocycler spare parts	0	0	0	0.00
Thermocycler Travel/accommodation technician	0	0	0	0.00
Laminar flows (PCR workstation) service contract 1 year	0	0	0	0.00
Laminar flows (PCR workstation) spare parts	0	0	0	0.00
Laminar flows (PCR workstation) travel/accomodation	0	0	0	0.00
Autoclave service 1 year contract	0	0	0	0.00
Autoclave travel/accomodation	0	0	0	0.00
Autoclave spare parts	0	0	0	0.00
BD BACTEC™ MGIT™ 960 System service contract 1 year	0	0	0	0.00
BD BACTEC™ MGIT™ 960 System travel and accommodat	0	0	0	0.00
BD BACTEC™ MGIT™ 960 System BD BBL™ Air Filters Rect.	0	0	0	0.00
BD BACTEC™ MGIT™ 960 System BD BBL™ Calibrators Kit	0	0	0	0.00
GeneXpert 4-module service contract after warranty	0	0	0	0.00
GeneXpert 4-module GLI Validation kit	0	0	0	0.00
<input type="button" value="Save Changes"/>				
Total amount				0.00

Costs for equipment repair (w/out service contracts)

Equipment	No. of units	Unit costs (USD)	Value lab equipment (USD)	Costs for repair (10% of value)
Analytical balance	0	0	0	0.00
Precision balance	0	0	0	0.00
Twincubator (LPA) Travel/accomodation technician	0	0	0	0.00
Binocular light microscope	0	0	0	0.00
Binocular fluorecence microscope mercury lamp	0	0	0	0.00
Binocular LED fluorecence microscope (Primo Star iLED	0	0	0	0.00
UPS	0	0	0	0.00
Module to convert bright field microscope in LED transmitt	0	0	0	0.00
Module to convert bright field microscope in LED re-emitte	0	0	0	0.00
Incubator	0	0	0	0.00
Centrifuge microliter	0	0	0	0.00
Centrifuge for standard reaction tubes	0	0	0	0.00
Autoclave (if no service contract)	0	0	0	0.00
Hot-air oven	0	0	0	0.00
Water distiller	0	0	0	0.00
Separate water supply for deionised water with conductiv	0	0	0	0.00
Aqua purificator cabinet for two de-mineralising cartridges	0	0	0	0.00
Compressor for autoclave	0	0	0	0.00
pH meter	0	0	0	0.00
Water bath, capacity approximately 20 L	0	0	0	0.00
<input type="button" value="Save Changes"/>				
Total amount				0.00

Maintenance and Repair

Items Manage Items

SectionID	Equipment	No. of units	Value/Service costs of equipment	CalculationDetails	Actions
Costs for Equipment service & maintenance contracts	Biosafety cabinets Service contract...	0	0	0	
Costs for Equipment service & maintenance contracts	Biosafety cabinets Spare parts	0	0	0	
Costs for Equipment service & maintenance contracts	Biosafety cabinets Travel/accomodation...	0	0	0	
Costs for Equipment service & maintenance contracts	Twincubator(LPA) Service contract...	0	0	0	
Costs for Equipment service & maintenance contracts	Twincubator(LPA) Spare parts	0	0	0	
Costs for Equipment service & maintenance contracts	Thermocycler Service contract...	0	0	0	
Costs for Equipment service & maintenance contracts	Thermocycler spare parts	0	0	0	
Costs for Equipment service & maintenance contracts	Thermocycler Travel/accommodation...	0	0	0	
Costs for Equipment service & maintenance contracts	Laminar flows (PCR workstation)...	0	0	0	
Costs for Equipment service & maintenance contracts	Laminar flows (PCR workstation)...	0	0	0	
Costs for Equipment service & maintenance contracts	Laminar flows (PCR workstation)...	0	0	0	
Costs for Equipment service & maintenance contracts	Autoclave service 1 year contract	0	0	0	
Costs for Equipment service & maintenance contracts	Autoclave travel/accomodation	0	0	0	
Costs for Equipment service & maintenance contracts	Autoclave spare parts	0	0	0	
Costs for Equipment service & maintenance contracts	BD BACTEC™ MGIT™ 960 System...	0	0	0	
Costs for Equipment service & maintenance contracts	BD BACTEC™ MGIT™ 960 System...	0	0	0	

Human Resources

The Human resource section handles the staff management based on cadre and remuneration as shown below.

Human Resources

Human Resource Incentives

+ New
 ✎ Edit
 - Remove

#	Description	No. of staffs	Annual contract amount per staff	% Contract	Annual Incentive per staff (USD)	Total annual costs (USD)
1	Head of laboratory	0	0	0	0	0
2	Laboratory technicians NRL	0	0	0	0	0
3	Laboratory technicians microscop	0	0	0	0	0
4	Laboratory Clerk	0	0	0	0	0
5	Nurse assistant/Cleaner	0	0	0	0	0
6	Microscopy supervisor	0	0	0	0	0

Total for incentives and salaries: 0.00

0.00

Quality Assurance

Quality Assurance section calculates the total cost required for the set Supervisions as shown below. The default value for all the sections is Zero.

Quality Assurance

Items

Supervision visits for AFB laboratories periphery

Name	Value	
Number of supervision visits in one year per facility	0	edit delete
Number of facilities to be supervised	0	edit delete
Length of supervision visit (average number of days)	0	edit delete
Number of national expert/facilitators (per supervision visit)	0	edit delete
Number of support staff (e.g., driver) (per supervision visit)	0	edit delete
Cost for fuel and lubricants (typical per visit)	0	edit delete
Costs for Supervision		
Total Cost for fuel and lubricants	0	
Total per diem national expert/facilitators	0	
Total per diem for support staff	0	
Total cost of hotel charges for staff	0	
Other costs	0	
Total costs for Supervision	0	

Supervision visits for C/DST laboratories by NRL

Name	Value	
No items		

Supervision visits for NRL(s) by SRL

Name	Value	
No items		

Re-checking samples (NRL --> SRL)

Name	Value	
No items		

Panel testing (SRL --> NRL)

Name	Value	
No items		

0.00

EXPAND-TB Budgeting Application Tool

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Operations

Operations section gives an itemized list of the operational cost to run the laboratory for the given period.

The list of the items already prepopulated on the system is as shown below. The system has an option for add / remove.

OPERATIONAL COSTS

Items

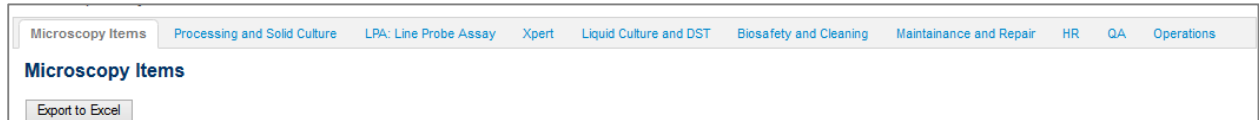
Other costs		
Name	Cost Per Month	Add ITEM
Fuel generator	0	edit delete
Electricity	0	edit delete
Request forms	0	edit delete
Registers	0	edit delete
Telephone & Internet	0	edit delete
Dest H2O	0	edit delete
Total Cost		0

Total Operation Cost 0.00

Create New Section

Draft Report

The Section exports all the data input in all the sections on the system to an Excel sheet. The export is section based as shown below.



To export data, click on the tab on which you want to export data to excel and click on the export to excel button. A save as dialog box will pop up for data download to your computer.

ITEMS	Category	UNIT / PACK	QUANTITY OF PACKS	UNIT COST (US\$)	BUDGET	CALCULATION DETAILS
Basic fuchsin, 100g (bottle)	Microscopy1	100	2	63	126	Carbol Fuchsin: 5ml per slide, includes +10%
Methylene blue, 100g (bottle)	Microscopy1	100	2	109	218	Methylene Blue: 5ml per slide, includes +10%
Phenol crystals colourless, 5kg	Microscopy1	5000	1	96	96	includes +10%
Ethanol, 96%, 2.5L (bottle), for stain solutions	Microscopy1	2500	3	7	21	includes +10%
Ethanol, 96%, 2.5L (bottle), for decolourization	Microscopy1	2500	29	7	203	Decolourization: 7ml per slide, includes +10%
Hydrochloric acid, 2.5L (bottle)	Microscopy1	2500	1	27	27	includes +10%
Total amount					691.00	
Cost for Microscopy1					0.07	
Applicator sticks, if loops are not available, pack of 1000	Microscopy2	1000	12	4.1	49.19	includes +10%
Microscope slides, lime-soda-glass, pack of 50	Microscopy2	50	228	2.73	623.03	includes +10%
Immersion oil, 500ml	Microscopy2	500	3	40.99	122.97	includes +10%
Lens tissue (paper), 50 pages/block, 10 blocks/pack	Microscopy2	500	7	36.89	258.23	includes +10%
Filter paper (diameter 150 mm), 100 per pack	Microscopy2	100	2	9.56	19.13	includes +10%
Methylated ethanol for spirit lamps, bottle of 2.5 L	Microscopy2	2500	1	3	3	
Marker pen (water-resistant)	Microscopy2	1	2	6.83	13.66	
Sputum containers, pack 100	Microscopy2	100	114	11	1254	includes +10%
Total amount					2,343.21	
Cost for Microscopy2					0.23	
TOTAL PROCESSING						3,034.21
TOTAL per sample						0.29

Budget Summary

The Budget summary page gives the summary of all the sections on the tool as shown below.

Dashboard Country KENYA Download Budget Summary				
Period of Budget 12 Months				
Reagents and Consumables		Costs (USD)	Number of tests	Cost per test
Microscopy		3,034.21	10362	0.29
Processing for culture		449.73	12	37.48
Solid culture		287.06	12	23.92
Liquid culture		273.73	12	22.81
DST Liquid culture		1,773.06	76	23.33
LPA		365,977.99	14352	25.50
Xpert MTB/RIF		2,060.60	200	10.30
Sub-Total		373,856.38		
Biosafety and Cleaning		Costs (USD)		
Biosafety		7,851.42		
Cleaning		4,104.71		
Sub-Total		11,956.13		
Maintenance and Repair		Costs (USD)		
Costs for Equipment service & maintenance contracts		0.00		
Costs for equipment repair (w/out service contracts)		0.00		
Sub-Total		0.00		
Operations		Costs (USD)		
Fuel generator		0		
Electricity		0		
Request forms		0		
Registers		0		
Telephone & Internet		0		
Dest H20		0		
Sub-Total		0.00		

The tool has an option for downloading the Budget summary in PDF format. To do so, go to the Summary page and Click on Download Budget Summary. You can also export the data of the Budget summary into Excel.

Dashboard Log Out (Country SWITZERLAND) Reset		
Dashboard Country SWITZERLAND Download Budget Summary	<input type="button" value="Export to Excel"/>	
Period of Budget 0.01 Months		