Cost Benefit Analysis Model for
SALW Stockpile Management

USER MANUAL

Welcome to the Cost Benefit Analysis Model CD ROM! The Model was developed in order to allow states to estimate the real costs involved in the storage of ammunition and weapons and it also allows a comparison of the potential benefits from sale versus the costs of storage.

The CD ROM also contains a publication entitled 'Cost Benefit Analysis of SALW Destruction versus Storage' which provides the guiding principles based on which the CBA Model was developed.

Accessing the publication

The 'Cost Benefit Analysis of SALW Destruction versus Storage' may be accessed by clicking on the link: Cost Benefit Analysis of SALW Destruction versus Storage Report

Using the Model

This model is in the form of an EXCEL sheet and it can be activated by clicking on the following link: CBA Planning Matrix

In order to use the Model, data needs to be input into the relevant fields. The Model will automatically calculate the totals and perform other complex calculations for the user.

The Excel workbook itself contains three spreadsheets:

1. Summary (Sale);
2. Weapons Sale Data Input; and
3. Ammunition Sale Data Input.

Summary (Sale)

This page is the summary of data calculations from the Weapons Sale Data Input and Ammunition Sale Data Input pages.

Enter data only in the grey appropriate boxes. Boxes in blue are 'calculation' boxes, which will update automatically.

The Summary produces the following assumptions in local currency for two scenarios for each ammunition and weapons:

Scenario A: Sales are regular over the period in question, and savings are realised in direct proportion to the sale.

Scenario B: No savings are realised until the stocks are completely sold.

Weapons Sale Data Input

This page represents weapons storage cost planning matrix. It contains data on costs regarding total staff/ personnel costs, utilities costs, benefits from sale of infrastructure, benefits from sale of weapons and Net Present Value (NPV). Based on these inputs, the table calculates Total Storage Costs.

In total staff/ personnel costs table, user enters data on staff/personnel type, daily salary, number of working days and number of staff. The table calculates pension contributions (@7%) and social security contribution (@5%), although this percentage can be changed. Then based on all the inputs it calculates expenditure for the staff in each category. Staff/personnel are shared in four categories: management and accounting staff, security staff, maintenance staff and category of fire service and safety staff. Total staff/personnel costs are calculated for all staff categories.

In the utilities costs table, the user enters data on monthly cost for utilities (such as gas, electricity, water, telephone and internet), maintenance, capital equipment and miscellaneous costs (such as rent, security equipment, medical services etc). Based on these inputs, the table calculates total utilities etc per annum.

Benefits from sale of infrastructure relates to net benefit from sale of equipment, buildings and land, less the cost of the preparation for the actual sale.

Benefits from sale of weapons are calculated as price per unit less transaction costs of sale.

NPV represents the future stream of benefits and costs converted into equivalent values today. This is done by assigning monetary values to benefits and costs discounting future benefits and costs using an appropriate discount rate, and subtracting the sum total of discounted costs from the sum total of discounted benefits.

Ammunition Sale Data Input

This page represents ammunition storage cost planning matrix. It contains data on costs regarding total staff/personnel costs, utilities costs, benefits from sale of infrastructure, benefits from sale of ammunition and Net Present Value NPV. Based on these inputs, the table calculates Total Storage Costs as sum of costs for staff and utilities.

In total staff/personnel costs table, user enters data on staff/personnel type, daily salary, number of working days and number of staff. The table calculates pension contributions (@7%) and social security contribution (@5%) and based on all the inputs calculates expenditure for the staff in each category. Staff/personnel are shared in four categories: management and accounting staff, security staff, maintenance staff and category of fire service and safety staff. Total staff/personnel costs are calculated for all staff categories.

In utilities costs table, user enters data on monthly cost for utilities (such as gas, electricity, water, telephone and internet), maintenance, capital equipment and miscellaneous costs (such as rent, security equipment, medical services...). Based on inputs, table calculates total utilities etc per annum.

Benefits from sale of infrastructure relates to net benefit from sale of equipment, buildings and land, less the cost of the preparation for sale.

Benefits from sale of ammunition are calculated as price per tonne less the transaction cost of sale and transfer - per tonne (AUW).

NPV represents the future stream of benefits and costs converted into equivalent values today. This is done by assigning monetary values to benefits and costs, discounting future benefits and costs using an appropriate discount rate, and subtracting the sum total of discounted costs from the sum total of the discounted benefits.

If you encounter any problems in the use of this Model, or have any questions, please feel free to contact the SEESAC Communications Officer at ana.martinovic@undp.org or on the following numbers: (+381) (11) 344 6353 or (+381) (11) 344 6356.

We hope the CBA Model will be of use to you and your organization.