Using the Online Database

If you ever have a question about a section of the online database, please click on the question mark [**?**] next to that section. If that does not answer you question, please ask your Regional Coordinator or Regional Director in New York.

Database URL: www.XX.dbisa.org (XX= country prefix). For example, in Vietnam the database URL is www.nv.dbisa.org. In Mexico, the database is www.mx.dbisa.org. Ask your Country Coordinator for your country prefix.

Language: **You are free to enter the site screening information in your local language or English. If you enter your screening in your local language, we will translate it and paste in English text above or below to your original text.**

ISS Approval: **For the data of your investigation to be approved, fill out the database fields listed below.**

Part 1. Screening Risk Screening

ISS Complete: Please click this box when you believe your screening is complete and you would like the New York staff to review your screening. The New York staff will not review your site screening until this box is checked. This does not necessarily mean your job is finished. The New York staff might review the site and label it "needs more information." If that happens, please look at the "ISS Status/Notes" box to see what information is missing. Please be aware that an ISS is considered complete when the on-site assessment is finished and all necessary information has been entered into the online database according to the indications of the manual. Furthermore, if you have updated the site and provided more information regarding lacking areas, please click "Updated by Site Investigator" located in the "Notes Box".

Site Name: Please select a name that identifies the source of pollution AND the location (city and state). For example: "John's Lead Smelter, New York City, New York State." If the site is a whole village with many sources or no clear source, please use the village name. For example: "Bati Village, Thumen Country, Trivoli State."

Country: Please select the appropriate country.

Province: Please select the appropriate province. If the province is not available, please contact your Regional Coordinator or Regional Director in New York.

Issue: Please select if the issue is an isolated site or if it is a regional problem. A regional problem is defined as: one source impacting different locations (for example

several villages) or several small sources (for example several small mining operations) affecting a whole region.

For instance, artisanal gold mining commonly occurs across regions. It is not necessary for our purposes to assess every village where artisanal and small-scale gold mining is occurring. Rather, assess the health exposures in one of the affected villages, and estimate the population for the region; In this case, mark the “regional problem” check box. Similarly contaminated river basins occur in many major cities around the world, and can impact millions of people. The pollution is diffuse and the sources are often disparate. In these cases, mark “regional problem” and estimate the population affected. By contrast local site is categorized as having a well-defined population and clear pollution source. Several small-scale battery recyclers in a **single** village would compose a "local" site.

Abstract: Please enter a 2 to 4-sentence description of the problem. Clearly identify the source, the pollutant, the migration route and the pathway. For example: “A leather tannery in the town of Smithville dumped chromium waste behind the facility. The waste is not protected by walls or covered from rain or wind. The waste is leaching chromium into the local surface waters and groundwater. The local community uses wells dug into the contaminated groundwater aquifer as a potable water source.”

ISS Date: Date when you conducted your screening. Note: the ISS will automatically fill in the date of the data entry. However, it is important to put in the date when you actually conducted the site screening, not when you are entering the data.

Key Pollutant: Please select the key pollutant for the site from the drop down menu. The “Key Pollutant” is the contaminant that both has known toxicological effects and exceeds the recommended level. You are likely to encounter multiple sites where several pollutants are present. In these cases it is your responsibility to select the appropriate chemical as the key pollutant.

Consider the following example. River sediment in a community has become contaminated by runoff from nearby mine tailings. Samples collected and analyzed show copper at very high levels. They also show arsenic slightly below the recommended level, and lead (Pb) at 1.5 times the recommended level. Arsenic is a known carcinogen and its levels are clearly elevated, though they are still within international standards. Copper levels well exceed international standards, though the toxicological effects of copper are not as significant. Finally, lead (Pb) has known neurological and cardiovascular effects and exceeds the international standard. Therefore lead (Pb) is the Key Pollutant. Select “Lead” from the drop down menu on the Screening Risk Assessment page. On the Physical Description page (Part 2), list arsenic under “Other Pollutants” and enter its analysis results. Finally, originals of all sampling data (including that for copper) should be uploaded as an attachment.

If the pollutant is a “Poly Aromatic Hydrocarbon” or a “Pesticide” or a “Volatile Organic Compound," select the specific pollutant from the specific drop-down menus. If the pollutant is a “Radionuclide” enter details in the free text field. If the pollutant is not listed, please select “other” and enter the pollutant name in the free text field.

It is essential that the Key Pollutant field be properly completed. Direct any questions to your Country Coordinator, Regional Coordinator, or Regional Director.

Sample Matrix: After you have selected the “key pollutant” please enter the following information in the matrix for **each** sample you have taken (please refer to the “Guidelines for Taking Samples” for further information). A minimum of 15 readings should be taken using XRF, and a maximum of 10 soil samples per site should be taken if you are using laboratory analysis.

- **Sample sector:** Please indicate the sector (as defined on your map from page 11) this sample was obtained from.
- **Sample type:** Please indicate if the sample is a composite or a targeted sample (see sample guidelines on pages 12-13 for definitions).
- **Media:** Please select the type of substance that was sampled (air, soil, water, urine, hair, blood, etc.)
- **Pathway:** Please select how the population enters in contact with the pollutant.
- **Population:** Please enter the number of people that could be exposed to the key pollutant in the sector where the sample was taken. However DO NOT double count. For example, if sector one is a school and sector two is a residential area, the children that get exposed in the school should not be counted again when reporting the number of people exposed in the residential area. See “estimated population at risk" below for more details.
- **Test Results:** Please enter the pollution concentration from each sample. The measurement units will be automatically entered once you select a “media”. Please make sure the sampling data you enter uses the same units that are automatically generated. Please consult with your Country Coordinator for help converting units.
- **Coordinates of Sampling Data:** Please input a latitude and longitude for each sample. These samples should be tagged in the map in Part 2 of the database (Physical Description). Note: GPS coordinates should be entered as decimals, not degrees (e.g. 18.418789, not 18°41’87).

Estimated Additional Population at Risk: This is your estimate of the number of people that could be exposed to this pollution at a level (dose) that could impair their health. The ISS should identify both the likely number of people impacted and the total number that might be impacted in a worst case. For example the likely population at risk could be:

- The local residents in a neighborhood with contaminated soil; or
- The number of school children and residents in the immediate vicinity of a lead smelter or other toxic air pollution source; or

- The population drinking contaminated groundwater.

A worst-case impacted population at risk estimate would include a larger number -the number of people who could be exposed to the toxic pollution. Examples might be:

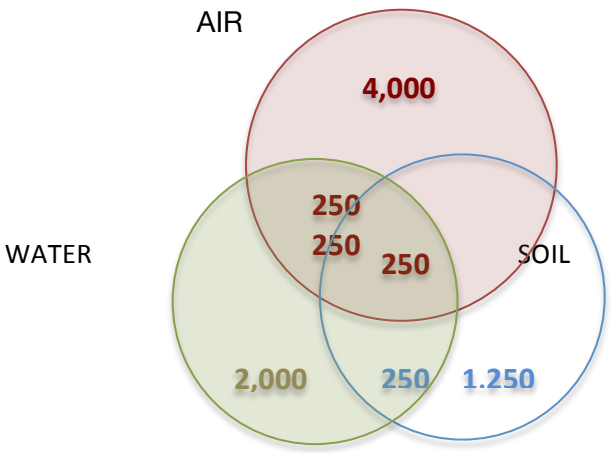
- The total population in a ½ kilometer radius of a lead smelter or other air pollution source; or
- The entire population of a town in which a large industrial estate is located; or
- The entire population of an area relying on a contaminated aquifer or surface water source (as opposed to just the population relying on wells sampled and found to be contaminated.

Good professional judgment should be used in developing population estimates, using available information from maps, government sources (regarding such things as town population and water sources) and your own observations. An approximate estimate of the Population At Risk is OK. You may round to the nearest thousand. For example, if 750 people are exposed, then round-up to 1,000. Keep in mind that it is not uncommon to have exposed populations in the 10's of thousands.

Please note that contaminant migration and pathways define the population at risk. Once a pollutant has been shown to be above the standard, consider the aerial extent of the contamination and how it gets inside of humans. Are people absorbing it by drinking it, breathing the air, inhaling or accidentally ingesting dust, eating food? This pathway will help you ask the right questions and determine the population at risk.

There are often multiple pathways at a given site. Soil that contains lead can contaminate barefoot children through dermal contact or ingestion, though it can also be inhaled as dust by local community members. Similarly, dust containing arsenic can be inhaled or ingested, and can also migrate to drinking water supplies and be ingested. Multiple pathways must be considered when reviewing a site. The total Population At Risk is therefore the total number of people considering all pathways at a site.

Consider the chart below:



DO NOT DOUBLE COUNT POPULATIONS
Air: 4,750 (4,000 + 250 + 250 + 250)
Soil: 1,500 (1250 + 250)
Water: 2,000

Note that a single person may be put at risk by more than one pathway, though they can only be counted once in the total Population At Risk. The chart above illustrates that while multiple pathways can impact the same group, each group can only be counted once.

Finally, remember that you are only expected to estimate Population At Risk to within reasonable range. Make an educated guess by using your screening information and tools such as local maps or census data, or Google Earth to estimate the number of nearby housing units.

Data Source Type: Please select the type of source used to get the sample results (for example: investigator sampling, government report, etc)

Data Source Description/citation: Please include a detailed description or citation of your data source. Please remember to upload in PART 6 any available source documents. If you took samples, please describe the sample types, dates, and locations, and upload a scan of the laboratory results.

Test Data Certainty: Please use your judgment to indicate the reliability of the data source. For example, if you took samples that were analyzed in a certified lab, the certainty should be high. If the data is old, or comes from a local advocacy group, the certainty may be low.

Save: Please remember to save your information every time you make a change in the database. If you do not click "Save" before you move to another page, your changes will be lost.

Part 2. Physical Description

Location & Site Description: Please write at least 4 detailed paragraphs that include:

1. Location and geographical description of the site (size, topography, distance from town, nearby rivers, lakes, mountains, etc.)
2. Detailed description of the pollution source (for example: is it a factory? Is it abandoned? What did it make? How many people worked there? What kinds of wastes did it produce? Where were they dumped?)
3. Description of the contaminant migration route (for example fugitive dust carried off-site from a lead smelter to the neighboring community; contaminated soil dumped in the open next to a school; or a surface stream contaminated by storm runoff from a sludge pile)
4. Description of the pathway into the body (for example, dust inhalation/ingestion, surface water ingestion, contaminated food ingestion, etc.)
5. Description of the population that is affected (for example: Where do they live? Where do they get their drinking water? What kind of houses do they have? Are their many kids? Do the kids have direct contact with the pollution? Are they downwind from the pollution source? Do they pass the source on their way to work/school?)

This site description should be easy to understand for a non-local and non-expert. Please also upload a map of the site as an attachment.

Population estimate explanation: Explain in two or three sentences how the population affected was estimated. For example, "only people living within 300m^2 around the source were included, national census data from 2009 was used."

GPS Coordinates: GPS coordinates should be entered as decimals, not degrees (e.g. 18.418789, not 18°41'87). To convert degrees to decimals go to: www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html
If you are converting degrees to decimals, you might have to add a minus (-) sign in front of the decimal to get the correct coordinate. Once you enter the GPS coordinates and save the page, please look at the map to see if it shows the correct location.

Size of Contaminated Areas: Please select if the area affected is :
<100m^2, 100-500m^2, 500-1,000m^2; 5,000-1000m^2 (1 hectare); 1 hectare-5 hectare; > 5 hectare.

Approximate Surface Area: If the contaminated area is land, please describe the size of the site in in hectares (1 hectare = 10,000m; 1 km2 = 100 ha).

Estimated Depth of Contamination: Enter value in meters.

Was a test pit dug to determine the depth of contamination: Please select from the menu (yes/no).

Is there a strong smell associated with the site attributed to contamination: Please select from the menu (yes/no).

Land use: If the contaminated area is a land area, please select the category that best describes use given to land: Agriculture; Critically Sensitive Receptors (Schools, Hospitals, Etc.); Dumpsite; Housing/Residential; Industrial (active); Industrial (vacant or closed facility); Natural Area; Vacant Land

Type of water body: If the contaminated site affects a water body, please select the category that best describes this water body: 1) Not Applicable, 2) pond, 3) small lake, 4) large lake, 5) estuaries, 6) ocean, 7) small river/stream, 8) large river, 9) wetland, 10) ground water.

Estimate the number of people in categories (table): Enter population data into the 4x3 table (4 categories of location and 3 categories of activity).

Site accessibility to animals that are later consumed by humans: Choose which best describes the area: 1) food animals/fish on site 2) food animals/fish within 100m, 3) accessible to occasional food animals

Distance to the source of potentially contaminated drinking or bathing water: Choose how far: 1) > 5 km, 2) 1km to 5 km, 3) 300m to 1km, 4) 0 to 300 m

In which direction: 1) North, 2) Northeast, 3) East, 4) Southeast, 5) South, 6) Southwest, 7) West, 8)Northwest

What is it [water] used for: 1) Other, 2) Unknown, 3) Irrigation, 4) Fishing, 5) Bathing/Washing, 6) Drinking, 7) Not Used

How far are crops produced form the contaminated area: 1) No crops are produced within 100m, 2) Crops are produced within 100m of contaminated area, 3) Crops are produced within 10m of contaminated area, 4) Crops are produced in contaminated area

If water at the site is contaminated, is there another source of clean water available?: Please select from the menu (yes/no).

Describe the access to the contaminated area: 1) Controlled access; entry difficult, 2) Remote locations; less accessible, 3) Moderate access; entry more difficult, 4) Easy access; few barriers to entry

Describe the ground cover over the contaminated area: 1) The site is covered by a concrete slab or other type of engineering, 2) There is complete grass cover and other vegetation, 3) There is sparse grass cover, 4) The contaminated area is bare

Source Industry: This section is very important. Please choose the *primary* industry that is the source of the pollution. Please read the full list of industries. Some industries are very similar, for example "mining and ore processing" and "artisanal mining." Please choose carefully.

Active, Legacy, or Both: An "active" site is one where the industrial process or facility is open and active. A "legacy" site is one where the facility or process has ended or is closed. A "Both" site is one where the facility or process is open and active, but where soil or groundwater pollution exist from year of past industrial activities. For example, an active facility that is the source of years of heavy metal pollution in soil and sediments is a "both."

Other Pollutants: List all known pollutants.

Chemical Group 2 and Chemical group 3: if more than one pollutant is present at the site, please select the two other major pollutants.

Test data available for other pollutants: Click the link if sample data is available for other pollutant 2 and 3. This will bring another "Sample matrix" please fill the sample matrix according to the instructions give above under "Part 1".

Documented Health Effects: Please select from the menu (yes/no) if there are documented health effects caused by the pollutant to the population at risk.

Describe credible health impact of pollutant: Please describe the health impact of the pollutant and its particular pathway to the population at risk. Anecdotal, peer-reviewed, or media accounts of any health effects on local pollution are accepted. Attach any existing studies (scan and pdf).

Other pollutant sample notes:

- If you took samples for other pollutants (besides the key pollutant reported on "Part 1", please describe the type of sample, the number of samples, the location of each sample, the date and time that you took the samples.
- Please describe the exposure pathway that you took the samples from.
- If you sent the samples to a laboratory, please list the name and address of the laboratory as well.

- If test data comes from an outside source like a government report or peer-reviewed study, please cite that report (i.e. author, title, date…) and *briefly* describe its sampling method and test data, including quality assurance/quality control (QA/QC) data.
- Additionally, upload any previous tests by other credible agencies, and add their test results and QA/QC data.
- Please upload test results from field sampling as soon as they are available.

Additional notes: Any information that does not fall into one of the above categories may be placed here.

Part 3. Release Risk

Is there permanent surface water on the site: Please select from the menu (yes/no).

What is it used for: 1) Other, 2) Unknown, 3) Irrigation, 4) Fishing, 5) Bathing/Washing, 6) Drinking

Is there evidence of a high water table or ground water: Please select from the menu (yes/no).

Depth of the water table: 1) Shallow <2m; 2) Medium 2 – 10m; 3) Deep 10-50m; Very Deep > 50m

Is the site in a flood plain: Please select from the menu (yes/no).

Distance to the closest river or water body: 1) No water source in vicinity; 2) Within 500m of contamination; 3) Within 100m of contamination; 4) Within 50m of contamination; 5) Running through the contaminated site

Distance to the closest well: 1) No well in vicinity; 2) Within 500m of contamination; 3) Within 100m of contamination; 4) Within 50m of contamination

In which direction: 1) North, 2) Northeast, 3) East, 4) Southeast, 5) South, 6) Southwest, 7) West, 8)Northwest

Position of the contaminant(s) relative to the slope: This question is asking where the contaminant is relative to the ground. Is it on the surface (above ground) or deeper in the soil (below ground)? The second part of the question is asking if the site is on a hill -intermediate for a hill that does not rise quickly, or steep if the hill has a sharp rise- or flat.

Given this information, **Please choose the description that fits best:**
1) Contaminants above ground level and slope is steep, 2) Contaminants at or below ground level and slope is steep, 3) Contaminants above ground level and

slope is intermediate; 4) Contaminants at or below ground level and slope is intermediate, 5) Contaminants above ground level and slope is flat, 6) Contaminants at or below ground level and slope is flat, 7) Do not know

Is this a storage facility for pollutants: Please select from the menu (yes/no).
If "yes," a new series of questions will appear once you Save the page.
Key pollutant Details:
Number of Containers. Please indicate how many containers are on site.
If no Containers: [Note this question should be answered even if there are containers.] Select one of the following from the drop-down menu: 1) Uncontained piles, 2) Residue or spills only, 3) Not applicable (containers)
If Uncontained piles, estimate quantity: Indicate quantity in cubic meters
Size of Containers: Estimate size in liters (if applicable)
Type of Container: 1) Steel or metal drum, 2) Metal can or pail, 3) Plastic drum, 4) Paper container, 5) Bags, 6) Other
Container Age: 1) 1-5 Years, 2) 5-10 Years, 3) 10- 20 Years, 4) > 20 Years
Formulation: Check Whether Liquid, Powder, or Solidified
If Liquid Identify Dilutant: 1) Water, 2) Oils, 3) Volatile Solvents
Specify concentration of Pesticide if known: in ppm
Identification Method: 1) Good, legible labels, 2) Inventory or written records, 3) Unreliable labels, 4) Verbal or Informal records
Location: 1) Inside building with good roof, 2) Inside building with poor roof, 3) Outdoors, 4) Below ground
If Building, select: Please answer even if there is no building. 1) Good walls, 2) Incomplete or poor walls, 3) Not applicable (Outside)
If cover, select: Please answer even if no cover. 1) Not applicable (Indoors with good roof), 2) Tarpaulin or plastic in good condition, 3) Other or poor cover, 4) No cover

Part 4. Site Stakeholders – Meeting Details

Please identify all relevant government agencies, non-profit organizations and business that have any authority or interest in the site. If any government official accompanied you to the site visit, please document his/her name and title in this section.

Part 5. Expected Intervention Description

Describe short-term strategy required to initiate site remediation: If you have experience in site remediation, please describe the initial steps required to begin remediation.

Estimated Volume of Contaminant: Please enter an estimate in cubic meters of the amount of material contaminated.