# THE CORAL TRIANGLE INITIATIVE PROJECT MAPPING TOOL DEVELOPMENT OF A RESPONSIVE, MONITORING ENABLED VERSION

# **TABLE OF CONTENTS**

|      |                       | <u>P</u>  | age                  |
|------|-----------------------|---|----------------------|
| I.   | OF                    | E CORAL TRIANGLE INITIATIVE PROJECT MAPPING TOOL DEVELOPMENT<br>A RESPONSIVE, MONITORING ENABLED VERSION (V3)<br>OJECT COMPLETION REPORT, 24 FEBRUARY 2015                                    | 5                    |
|      | A.<br>B.<br>C.<br>D.  | Background  | 5<br>6<br>8<br>8     |
|      | E.                    | Future requirements   |                      |
|      | F.                    | Data Sharing  | 10                   |
| II.  | OF<br>PRO<br>A.<br>B. | E CORAL TRIANGLE INITIATIVE PROJECT MAPPING TOOL DEVELOPMENT A RESPONSIVE, MONITORING ENABLED VERSION (DATA PORTION) OJECT COMPLETION REPORT, 15 DECEMBER 2017  Background  Goals and Outputs | 11<br>11             |
|      | C.<br>D.              | Achievements  | 14<br>14             |
| III. |                       | MAPPING TOOL USER'S GUIDE   |                      |
| 111. | A.<br>B.<br>C.        | Main Screen Log In Database  1. Viewing Project Information 2. Searching for Projects 3. Adding New Projects  | 18<br>18<br>19<br>19 |
|      | D.                    | Map   | 21<br>21<br>22       |
|      | E.                    | Monitor   |                      |





| VOLUME IV APPENDIX 3: CTI PROJECT MAPPING | TOO | MADDING | DDO IECT | 2. CTI | ADDENIDIY | VOLUME IV |
|---|-----|---------|----------|--------|-----------|-----------|

Page 3

# **LIST OF FIGURES**

| <u>No.</u> | <u>Title</u>  | <u>Page</u> |
|------------|---|-------------|
| 1          | Database View – Search Tab  | 6           |
| 2          | Map View – Project Tab  | 6           |
| 3          | Monitor View (Example: Number of Projects Per Country)                  | 7           |
| 4          | CTI Projects Mapped   |             |
| 5          | Map of Projects Addressing CTI Goal 2                                   | 13          |
| 6          | SCREMP Information  | 13          |
| 7          | Screenshot of MPA Global Highlighting MPAs in the                       |             |
|            | Western Central Paciific  | 16          |
| 8          | Screenshot of Reefbase Showing Coral Bleaching Reports (From 1973-2007) | 17          |
|            | ( )   |             |

# **LIST OF TABLE**

| <u>No.</u> | <u>Title</u>                        | <u>Page</u> |
|------------|-------------------------------------|-------------|
| 1          | Information Encoded in the Database | 14          |

# **LIST OF ABBREVIATIONS**

AJAX Asynchronous JavaScript and XML

CSV Comma-Separated Values

CTI SEA Coral Triangle Initiative-SouthEast Asia

KML Keyhole Markup Language

UI user interface

# I. THE CORAL TRIANGLE INITIATIVE PROJECT MAPPING TOOL DEVELOPMENT OF A RESPONSIVE, MONITORING ENABLED VERSION (V3) PROJECT COMPLETION REPORT, 24 FEBRUARY 2015

# A. Background

- 1. After demonstrating an interactive map of CTI projects at the SOM 2012, CTI SEA was requested to develop a dedicated CTI SEA map tool (Version 1) that allows for interactive editing of the CTI project database and display as a web-map. A corresponding application was developed from September 2013 and launched in February 2014.
- 2. During the first 3 months of its operation, stakeholders were asked to test the application and communicate their needs for improvements that would enhance adoption and operationalization of the CTI Map Tool V1 by project owners.
- 3. In April 2014, stakeholders put forward 3 priority tasks: (i) user interface and design improvements to make the tool more intuitive to use, (ii) a responsive web design that works across a wide range of screen formats and sizes, in particular tablets and smartphones, and (iii) the integration of interactive indicator charts to explore the use of this tool for M&E purposes.
- 4. Responding to these priorities, the project team launched the development of the CTI SEA Map Tool V2 in May 2014. In the meantime, stakeholders had developed additional requirements on the functionality and usability of the CTI Maptool, which led to the launch of developing a 3<sup>rd</sup> version with enhanced capabilities.

# B. Goal and Objectives

- 5. Main goal of the CTI Maptool is to provide CTI stakeholders (governments, donors, implementers) a joint platform to consolidate their project information and review it for potential synergies, gaps or conflicts.
- 6. The main objectives of this project were to (i) develop a responsive design that works well across a wider range of devices (tablets, touchscreens), (ii) add value and usefulness to the CTI Maptool through incorporating interactive monitoring functions, and (iii) further simplify the user interface to reach out to more non-technical users.

# C. Team and Implementation Period

- 7. Work on the CTI Maptool V3 commenced in April 2014 with the hiring of 4 team members: 1) Team leader (Mr. Lothar Linde), 2) Database Specialist (Dr. Christine Casal), 3) Programmer (Mr. Chino Singson), and 4) Web designer / graphics artist (Mr. Mike Cortez).
- 8. Between May 2014 and January 2015, the team delivered the following outputs:
  - A sitemap and a set of wireframes for the new version of the CTI Maptool,
  - Design proposals for the visual appearance of the CTI Maptool,
  - · Edits and improvements of the CTI project database,
  - Presentations and inputs to reports to donors and stakeholders
  - The CTI Maptool website (<u>www.ctimap.org</u>), including responsive design, monitoring functions, simplified user interface, and improved visual appearance.





9. Since outputs 1-4 were documented in previous progress reports, this report focuses on the final output and the future requirements to ensure seamless operation of the CTI Maptool after the end of the project.

# D. CTI Maptool V3 Website – Technology and Administration

- 10. The CTI Maptool can be accessed through the following link: www.ctimap.org. It consists of 6 different menu's: Login, Database, Map, Monitor, Help, and About. The CTI Maptools main functions are found in the Database, Map and Monitor menus as follows:
- 1. Database: Searches for projects by keywords (Fig 1). If the user is logged in, this is also the place to select a particular project for editing (redirected to map view), or to enter a new project to the database.

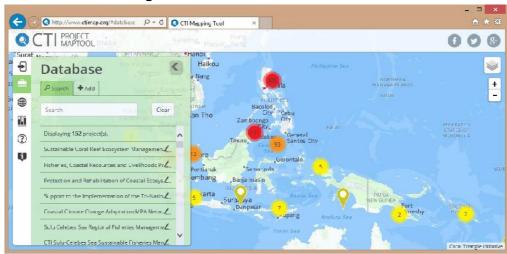


Figure 1: Database view - search tab

**2. Map:** Views projects on a map (**Fig 2**). The user can either show the entire portfolio or individual projects. A legend and filter function helps explaining and managing the information on the map further. If the user is logged in, this is also the dialogue in which users can edit individual projects and their locations.

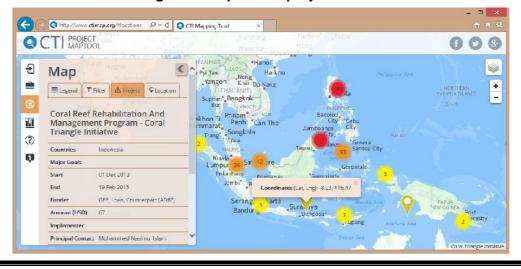


Figure 2: Map view - project tab





**3. Monitor:** Provide a statistical summary overview on the entire CTI project portfolio (**Fig 3**). The monitoring view currently contains 9 portfolio indicators distinguished by goals and countries, and is generated directly from the project database to ensure the graphs and charts are always up to date.



Figure 3: Monitor View (example: number of projects per country)

- 11. The CTI Maptool was built using the following web-programming technologies:
- 1. User Interface: HTML5 and CSS3 are the foundation of the website. On top of this, the Bootstrap framework (www.getbootstrap.com) has been used to render elements of the user interface (UI), such as the collapsible sidebar, input forms and buttons while its <u>iQuery-based API (www.jquery.com</u>) governs behaviors linked to these elements. Although the CTI Maptool is mainly intended to be used a desktop web application, the Bootstrap framework allows for proper rendering on tablets (responsive design).
- **2. Project database:** Project information such as project details, location coordinates and the like, are stored in a password-protected <u>MySQL database</u> (<u>www.mysql.com</u>) Project records are stored in one table, while related geographic information in the form of latitude-longitude coordinates is stored in another.
- **3.** Interactive map: Geographic information is rendered as a visual map in the web browser by the <u>Leaflet mapping API (www.leafletjs.com</u>). This information is brought to the client side with a combination of <u>MySQL queries</u>, <u>PHP rendering</u> and <u>AJAX</u> (Asynchronous JavaScript and XML).
- 12. In order to run seamlessly, the CTI Maptool requires the following server technologies/ specifications:
  - Ubuntu or Debian Linux/Windows 7 or better
  - Linux Apache or Apache 2 for Windows
  - MySQL 5.0 or better
  - PHP 5.4 or better
- 13. Two elements of the CTI Maptool can be directly administered by a non-programmer: (i) the user rights management which stores the credentials and details of all registered users of the maptool, and (ii) the MySQL-based project database.





# 1. User rights management - Adding, editing or deleting a user:

Admin credentials (as of 19 February 2015):

Username: administrator Password: ct1M@pT0ol!

- Navigate to: http://www.ctimap.org/assets/UserFrosting/login.php
- In the left-hand menu, click on Users.

### a. To add a new user:

- At the bottom of the page, click on [+] Create New User. A popup will appear.
- Fill in the necessary fields. Note that the password will need to be at least 8 characters long.
- When done, click on Create user

### b. To edit a user's details

- Repeat steps 1-2 in 'To add a new user'.
- In the 'Users' table, click on the username. A user profile page will appear.
- At the bottom of the page, click on 'Edit'.
- · Perform desired edits.
- · Click on 'Update User'.

### c. To delete a user account

- Repeat steps 1-2 in 'To add a new user'.
- In the 'Users' table, click on the username. A user profile page will appear.
- At the bottom of the page, click on 'Delete'.
- In the confirmation dialog popup, click on 'Yes, Delete User

### 2. MySQL project database - Adding, editing or deleting a record:

14. While the CTI Maptool add and edit functions are the primary interface to interact with the MySQL project database, there might be cases where an administrator wants to edit the MySQL database directly.

Admin credentials (as of 19 February 2015):

Username: jctimap

Password: XAYzebEgqd3QTN

- 1) Navigate to: http://www.ctimap.org/cpanel and log in with the above credentials.
- Scroll down to the section labeled 'Databases'.
- 3) Click on phpMyAdmin. This will open a new tab containing the Database Manager.
- 4) Select the 'jctimap\_bl' database.
- 5) To modify records, click on the SQL tab in the appropriate table
  - To add one or more records, use a MySQL INSERT statement.





- To edit one or more records, use a MySQL UPDATE statement.
- To delete one or more records use a MySQL DELETE statement.

# 3. Accessing the Source Code

### a. Managing Files with the cPanel File Manager

- Navigate to: http://www.ctimap.org/cpanel and log in with the admin credentials in the previous section.
- Scroll down to the section labeled 'Files'
- Click on File Manager
- Using the file explorer on the left-hand side, navigate to the public\_html folder.

### b. Connecting to the FTP Server

 Using an FTP client such as FileZilla, use the following credentials to log in remotely

FTP host: ctimap.org Username: jctimap

Password: XAYzebEgqd3QTN Remote Directory: public html

• Use the FTP client's interface to navigate through the source code folder structure.

# E. Future requirements

- 15. In order to successfully migrate the CTI Maptool to the CTI Secretariat or another CTI stakeholder and ensure seamless operation, the future owner has acquire IT infrastructure to setup and host the CTI Maptool, and the technical administration capacity to maintain it on the long run.
- 16. The future CTI Maptool host has two principal options to host the CTI Maptool: 1) Setup an own server (hardware and software), or 2) Rent server space from a commercial webhost. The latter option is more cost efficient and less maintenance heavy and should be chosen if the future host doesn't have a previous experience in managing an own server.
- 17. Regardless of choosing an own server setup or a commercial host, the future CTI Maptool owner will need to hire a webmaster that can administer the CTI Maptool as well as the server that is runs on (in house or a managed server provided by a webhost). A sample Terms of Reference (ToR) for a CTI Maptool webmaster are provided below.

### 1. Terms of Reference CTI Maptool Webmaster (full time)

### a. Scope of work

18. The CTI Maptool Webmaster will be responsible for administering and maintaining the CTI Mapping Tool (frontend) and the underlying CTI project database. He or she will also be responsible for managing and maintaining the server that hosts the CTI Maptool.

#### b. Tasks

19. Specific tasks include, but are not limited to:





- Upgrade or reconfigure the web server and/or web technologies as needed.
- Troubleshoot errors on the server and the application itself.
- Implement and deploy fixes as necessary.
- Carry out other web programming tasks as required by staff.

### c. Outputs

- Keep website set up and running smoothly.
- Submit a periodic status report.

### d. Experience / Requirements

- Degree in Computer Science, Computer Engineering or related field,
- At least 5 years of work experience of developing modern and standards compliant websites (example sites for review)
- At least 5 years of experience in web server configuration, management or maintenance and domain management and configuration
- At least 5 years of programming experience in HTML, JavaScript, PHP, MySQL
- Knowledge of the Leaflet Map Application Programming Interface and the Bootstrap Framework is considered an advantage.

# F. Data Sharing

- 20. The CTI Maptool's main purpose is to deliver map-based crowd-collaboration functions to build and maintain a geocoded project database of the Coral Triangle. To facilitate the use of these data outside of the CTI Project Maptool (e.g. through use in Desktop GIS or other Web-GIS applications), it provides the following data downloads:
- **1.** Download the CTI project database as Comma-Separated Values (CSV) file. This file can be imported into Spreadsheet software such as MS Excel.
  - Click on the 'Database' sidebar, then click on the 'Download' tab. Finally, click on the 'CTI Project Database' link.
- **2.** Download the CTI project locations with attached project information (attributes) as Keyhole Markup Language (KML) file. This file can be displayed in Google Earth, be imported into Desktop GIS Software such as QGIS or ESRI ArcGIS, or can be read by common GIS servers (e.g. Geoserver, ArcGIS Server) for overlay in other Web-map applications (e.g. CTI Atlas).
  - Click on the 'Database' sidebar, then click on the 'Download' tab. Finally, click on the 'CTI Locations' link.





# II. THE CORAL TRIANGLE INITIATIVE PROJECT MAPPING TOOL DEVELOPMENT OF A RESPONSIVE, MONITORING ENABLED VERSION (DATA PORTION) PROJECT COMPLETION REPORT, 15 DECEMBER 2017

# A. Background

- 21. Understanding the work in the CTI is a huge task. It is composed of several countries, each doing their own activities for the conservation and sustainable use of their marine resources. On top of this, while the national governments have projects and activities, there are also other players like the academe, NGOs, International agencies, POs also contributing to the work.
- 22. Keeping abreast with all these information is crucial to knowing whether there are areas which have been left out, activities which are being done over and over, funds are being maximized and so much more.
- 23. The CTIMapTool was developed to assist managers, donors or partners as well as stakeholders to see where they can best work, partner with and maximize their funding.

### B. Goals and Outputs

- 24. The main goal of the CTI Maptool is to provide CTI stakeholders (governments, donors, implementers) a joint platform to consolidate their project information and review it for potential synergies, gaps or conflicts.
- 25. The main objectives of this project were to:
  - (i) develop a responsive design that works well across a wider range of devices (tablets, touchscreens),
  - (ii) add value and usefulness to the CTI Maptool through incorporating interactive monitoring functions and
  - (iii) further simplify the user interface to reach out to more non-technical users.
- 26. The CTIMapTool achieved its main goal and objectives. It is possible to utilize the CTI Maptool on a wide range of devices and it is very simple to use.
- 27. The **database**, **mapping** and **monitoring** functions are the three main components of the CTI Maptool. These are all very simple and straightforward to use with or without logging in the system. One only needs login credentials if they need to add or modify records, otherwise the system can be utilized fully without logging in.
- 28. Information on the CTI activities operating at different levels (multi national, national, provincial, sites, etc.) by a wide range of stakeholders (government, non government, academe, public and private) is quite difficult to understand at any given time without people with historical knowledge entrenched in the system (for a long time) explaining them.
- 29. There is therefore a need for a system handling data which can provide answers to questions like:

What has been done to address the CTI goals?

Who has been doing research or activities in the CTI?

Where have activities/goals concentrated on?

When have these activities occurred (are they current or completed)?

What was the level of funding of the project? Or of all projects in the locality?





- 30. This system can allow managers to have information on current and historical knowledge of the activities within the CTI, past and present without the need for months of research. The CTI Maptool would also allow for a better management of resources for future endeavors by not duplicating efforts and addressing gaps in research and efforts in specific localities. It can also serve as a directory of agencies and people who worked and is working on the CTI.
- 31. Below are some of the screenshots from the CTI Maptool.
- 32. Below is a screenshot of the sites of the projects mapped to date (**Fig. 4**). Clicking on each point provide the user information on the project implemented at site with its associated data. An area with a high number of the projects shows up red while one with less projects are orange to yellow. Clicking on a red dot enlarges the site and separates the projects.

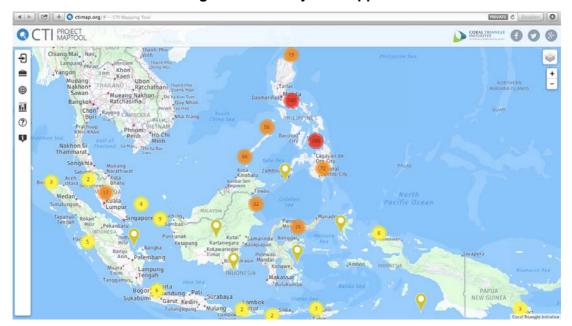


Figure 4: CTI Projects Mapped

33. The next screenshot is another way to visualize the information, through the Goals of the CTI. This type of filtering allows the user to see where projects focusing on particular CTI Goals are situated (**Fig. 5**). The user chooses the filter and only specific projects matching the query are presented.





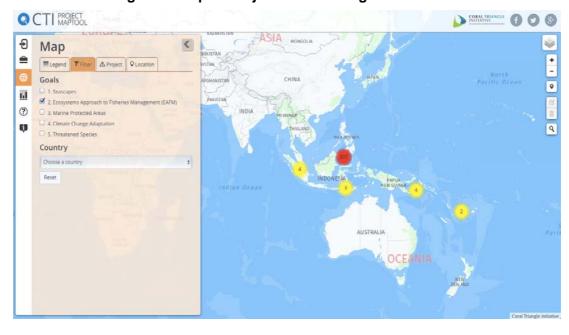


Figure 5: Map of Projects Addressing CTI Goal 2

34. Another way of finding data is by typing the name of the project and the system filters it to show data associated to the project. The map below shows information on a project (SCREMP), with areas covered (**Fig. 6**).

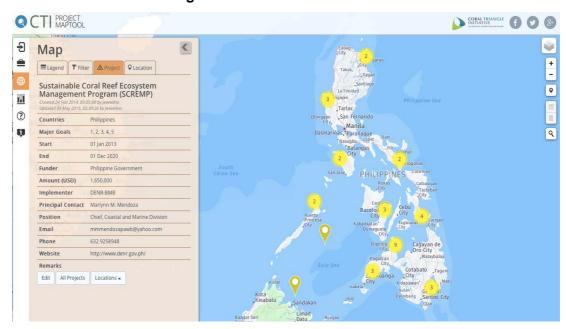


Figure 6: SCREMP Information





### C. Achievements

- 35. The development of the information within the database had a jumpstart with a previous project which gathered information of projects related to the CTI in the Philippines. The information provided though was:
  - in excel, did not have a mapping function
  - was very limiting in terms of analysis on the breadth and scope of the individual projects and more so on the consolidated information on projects conducted
  - and not online.
- 36. The CTI Maptool allowed for a more thorough development of the simple excel file. Information were beefed up to include where projects were located (for the mapping), standardized information regarding the start and end of projects (to allow information on finished and continuing projects), better attribution of projects and contacts (for better communication) and more projects being incorporated via the opportunities provided through meetings and trainings. Donors and implementing agencies were categorized to reflect whether these were private or public, international, national or local. These were done in preparation for more exhaustive reports in the future.
- 37. To date, 194 projects have been encoded in the database, most of which are projects within countries or single country projects (Table 1). There were multi country projects as well. Currently, all project information contributed are incorporated in the database. These comprise, small and large projects. Sometimes, big projects have subsets of smaller projects and these are also incorporated.
- 38. Note that some of the projects have been done in conjunction with other members of the CTI. Some of the projects were also encoded twice by collaborators, highlighting a smaller project within the project.

Projects (194) Contributors Indonesia 22 2 23 2 Malaysia **Philippines** 125 8 Indonesia and Malaysia 3 Malaysia, Philippines 1 Indonesia and Philippines 3 Indonesia, Malaysia and Philippines G. 13

Table 1: Information encoded in the database

### D. Challenges

39. Regarding the data which have been encoded so far, several strategies have been implemented to ensure that most of the data available are incorporated into the database.

### 1. Methods of gathering information:

- (i) data gathering via questionnaires (of project information) during meetings
- (ii) stakeholders' training of trainors to encode project information into the database,
- (iii) one on one trainings,





- (iv) checking different websites of donor agencies and other agencies working in the CTI and encoding them ourselves
- 40. All of these methods brought in project information, however the best were the one on one trainings with targeted stakeholders being assisted while they contribute their data and a person going through websites of the donors and other agencies and encoding those information.
- 41. The trainings brought in data only during the training sessions and then very sparsely thereafter. There are several possible reasons why this is so.
  - 1. People trained went back to their regular activities and encoding has not been prioritized. No time to populate the database.
  - 2. Those were the only projects related to the CTI. They have encoded every project they have.
  - 3. Current projects were the only ones some of the agencies have detailed information on. Finished projects have not been incorporated, no data on previous projects.
  - 4. Staff from older projects may have moved on and data about older projects may have been lost.
- 42. The different methods have brought in data, however, most of the data which are in the database have been incorporated by the data specialist. Very good resources online for projects information have been websites of the both donor and other related agencies (e.g. <a href="https://www.usaid.gov/philippines">https://www.usaid.gov/philippines</a>; <a href="https://www.ph.undp.org">http://www.ph.undp.org</a>, <a href="https://fasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects">http://www.ph.undp.org</a>, <a href="https://fasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects">http://www.ph.undp.org</a>, <a href="https://fasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects">https://www.ph.undp.org</a>, <a href="https://fasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects">https://www.ph.undp.org</a>, <a href="https://sasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects">https://sasps.denr.gov.ph/index.php/2016-02-15-13-15-09/list-of-projects</a>, etc.).
- 43. Recently, in a CHM meeting in the Philippines (Dec. 6, 2017), Ms. Armida P. Andres, Division Chief, Biodiversity Policy and Knowledge Management Division, Biodiversity and Management Bureau mentioned the request of Dir. Mundita Lim of having a system wherein she can go to a map and get information on what is happening (activities and projects) on a particular locality. This is definitely what the CTIMapTool allows one to do. We showed the CTIMapTool and asked them to click on a point in the map and right there and then, they were able to see what project was involved in the area and what they were doing. The KM group was surprised to see this and we suggested that they can build up on it by requesting for the information for the coastal projects and make a similar one to include their terrestrial projects. They listed this as an activity to pursue in 2018.

# E. Recommendations

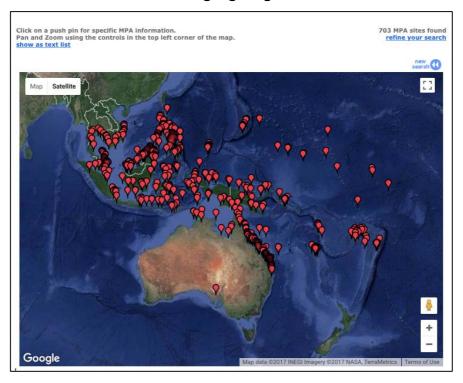
- 44. Moving forward on the CTIMapTool, there are still several items which can be improved:
- 1. Inclusion of the projects from the other 3 CTI countries. This was suggested previously by some partners but did not materialize during the duration of the project. The inclusion of Papua New Guinea, The Solomon Islands and Timor Leste projects would make the CTI Maptool more complete.
- **2. Refining the database.** Discussion within the secretariat on what type of projects should be incorporated in the database initially (e.g. 100K USD and above, national projects as opposed to very localized ones (with only 1 site), current as opposed to completed projects, etc.). This is essential so stakeholders can easily populate the database.
- 45. One also very important item to highlight is whether the project listed is part of a big program/project or just a subset. This will allow for more projects and localities to be incorporated making the CTIMapTool more exhaustive.





- **3. Making data submission mandatory.** The CTI Secretariat can make the submission of data on projects funded and approved within the CTI mandatory for the 6 countries. This would then allow for the completion of Nationally-funded projects included in the database. If internationally funded projects pass through the government, this would also include them.
- 46. Sometimes agencies are overwhelmed with the magnitude of information they have to incorporate and thus would just not encode anything. Prioritizing the encoding of current projects then moving on to completed ones can be a strategy.
  - **4. Generating new reports.** More reports can still be generated by CTI Maptool, i.e.
    - a. Agencies in a particular country involved in CTI related projects, etc.
    - b. Levels of funding per goal
- 5. Interoperability with similar systems. Looking for other information systems which are relevant to the CTI and making arrangements with them as well will allow for the CTIMapTool to be more powerful than it already is. This will allow for bringing together other information ie. overlaying MPAs on the map, coral bleaching reports and so much more.
  - a. **MPA Global (http://www.mpaglobal.org)** a database of World's Marine Protected Areas can also be utilized with the CTIMapTool. Finding the MPA of concern (in MPA Global) together with the activities and agencies on the ground (from the CTIMapTool) is a very powerful combination of information. Although both, alone, already provide very good information, having the combined information would allow for easier cooperation between and among agencies and projects.

Figure 7: Screenshot of MPA Global Highlighting MPAs in the Western Central Pacific







- b. ReefBase (<u>www.reefbase.org</u>) coral bleaching reports from ReefBase can be overlayed on top of the CTIMapTool to show these and may allow for synergies among agencies working on coral bleaching and the agencies on the ground (as evidenced by data from the CTIMapTool).
- 47. In one meeting, we have tried to demonstrate this.

Figure 8: Screenshot of Reefbase Showing Coral Bleaching Reports (from 1973-2007)



- **6. Hiring a dedicated/con database specialist** in the secretariat who will be able to identify and keep information up to date on projects, do presentations to stakeholders and one on one trainings to agencies interested in providing data, develop more reports and functionalities of the database.
- 7. Hiring of a web programmer who will be able to troubleshoot and implement more tools with the database specialist.

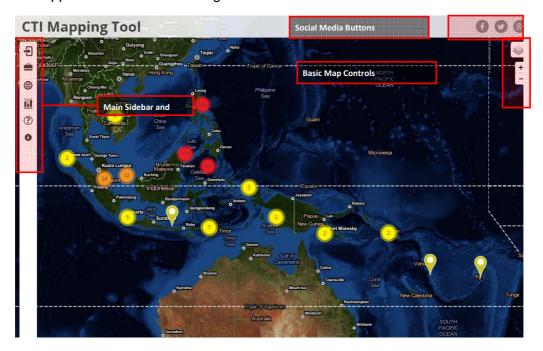




### III. CTI MAPPING TOOL USER'S GUIDE

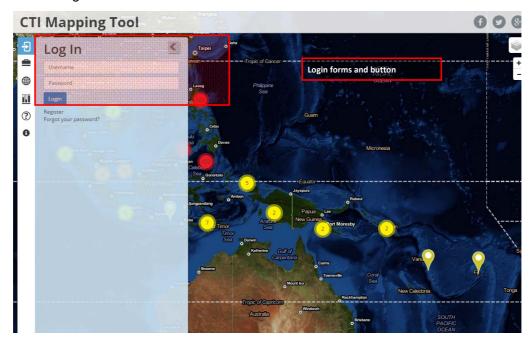
# A. Main Screen

48. To load the CTI Mapping tool in your browser, navigate to <a href="http://www.ctimap.org/">http://www.ctimap.org/</a>. The main screen appears after a brief loading interval.



# B. Log In

49. To log in, enter your username and password in the appropriate input forms. Click on the Log in button to sign in.







### C. Database

# 1. Viewing Project Information

50. To select a project for viewing, click on its title in the database listing.



51. Details of the selected project appear in the Map sidebar and the map view zooms into the location or locations associated with the project. Some locations may appear as clusters, depending on the map's zoom level. [Note: Click on 'Map > Legend' to see the clustering thresholds.]

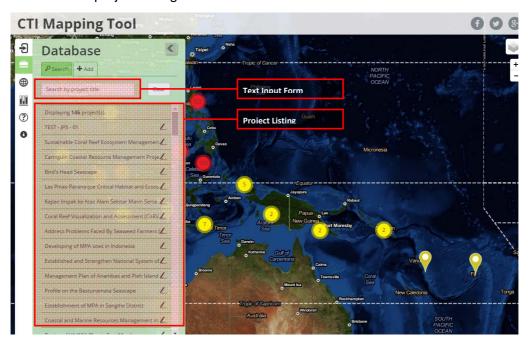






# 2. Searching for Projects

52. Search for a project by title. To begin searching, type the desired keywords into the text input form above the project listing.



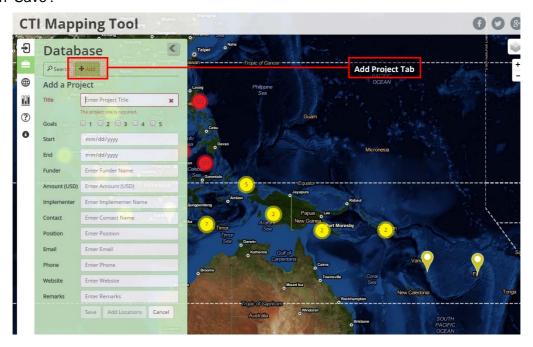
53. Search results automatically appear as you type.





# 3. Adding New Projects

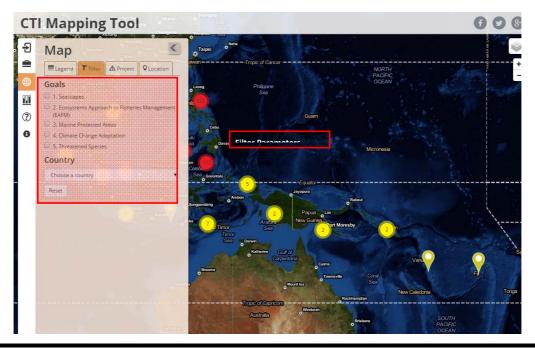
54. To add a project, click on the 'Add' tab and fill in the project information. When done, click on 'Save'.



# D. Map

# 1. Filtering Locations

55. To filter map locations, select one or more goals and a country. The number of markers appearing in the map view will increase or decrease depending on the combination of filters selected. Click on 'Reset' to revert to displaying all locations.

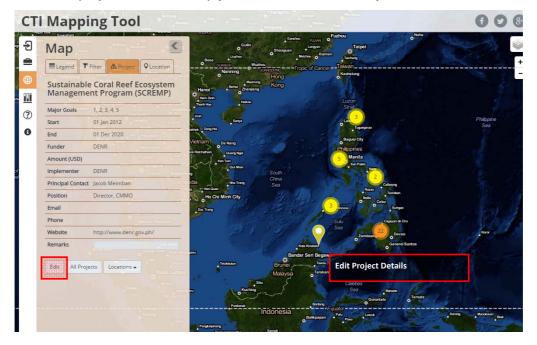




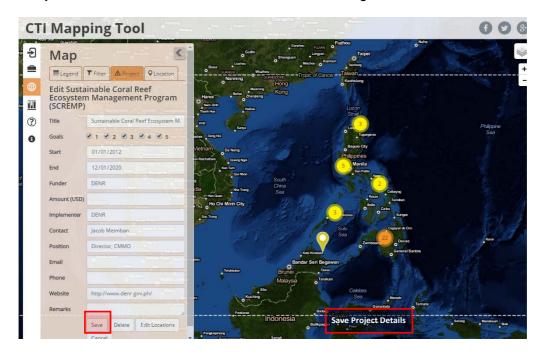


# 2. Editing Project Details

56. To edit a project's details, simply click on 'Edit' in the Project Details tab.



57. Project details will now be editable. When done editing information, click on 'Save'.

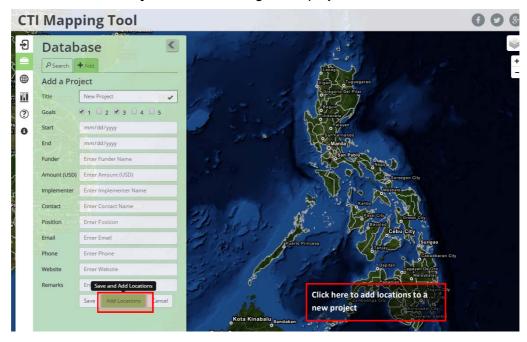




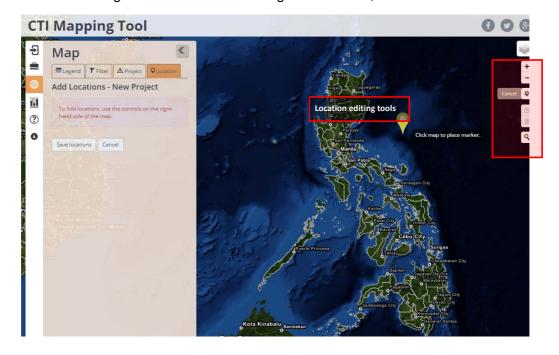


# 3. Adding or Editing Locations

- 58. To add locations to a project, you may take one of two paths.
  - **a. New Projects.** When adding a new project, click on 'Add Locations'.



59. The project's basic information is first saved, and then the map view displays tools for adding locations on the right-hand side. After adding new markers, click on 'Save Locations'.





b. Saved Projects. In an existing project, click on 'Edit" in the 'Locations' drop-up button.



60. The project's individual locations will appear, ready for editing. After editing markers or adding new ones, click on 'Save Locations'.





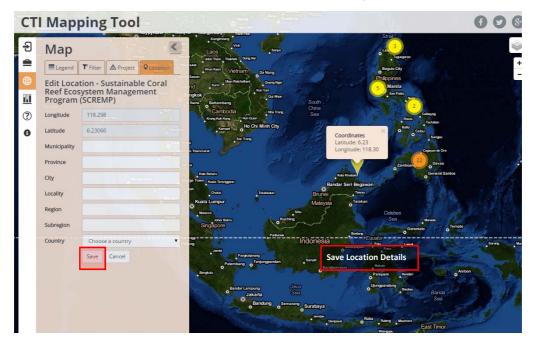


# c. Editing Location Details

61. To edit a location's details, simply click on 'Edit' in the Location Details tab.



62. Location details will now be editable. When done editing information, click on 'Save'.





# E. Monitor

# 1. Selecting Charts

63. To view a monitor chart, click on the dropdown menu and select a chart title. The corresponding chart will appear in the sidebar pane.

