

# The BALANCED Project



**Topic Mapping for Organizing Document Collections Online: An example of the population, health and environment (PHE) approach and the Knowledge for Health platform**

*November 2010*



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**Cover Photo (top) Caption:** "Community members engage in a participatory land use planning meeting in southwestern Cambodia"

**Cover Photo (top) Credit:** Carol Boender

**Cover Photo (lower) Caption:** "Village singers and dancers perform a traditional skit addressing PHE issues in the community, Madagascar"

**Cover Photo (lower) Credit:** Conservation International/Haroldo Castro

**TOPIC MAPPING FOR ORGANIZING DOCUMENT  
COLLECTIONS ONLINE:**

An example of the population, health and environment (PHE) approach  
and the Knowledge for Health platform

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November 2010

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## ***Executive Summary***

The U.S. Agency for International Development (USAID) supports the Building Actors and Leaders for Advancing Community Excellence in Development (BALANCED) Project, a five-year initiative to promote and advance integrated Population, Health and Environment (PHE) approaches worldwide. Some of the Project's main objectives are to synthesize state-of-the-art knowledge and practices in PHE integration and to disseminate that knowledge widely to diverse audiences in remote areas of critical biodiversity.

The purpose of this document is to describe the BALANCED Project's process for organizing PHE information and resources in order to construct a logical, evidence-based topic map for the PHE Toolkit. The intended audience for this publication is two-fold. On one hand, we hope to reach people who are familiar with the general concepts and themes of PHE, such as family planning and reproductive health, natural resource management, development strategies, communications and advocacy strategies, behavior change approaches and integration across sectors. This audience includes PHE practitioners in Ethiopia, Tanzania, Kenya, the Philippines and other countries who would like to increase their knowledge management (KM) capacity and who are potential BALANCED Project partners at the country level. At the same time, we also hope to reach people interested in creating KM type toolkits of whatever kind on the USAID-supported Knowledge for Health (K4Health) site. These audiences may or may not be familiar with PHE, and we hope that explaining our work from an informatics perspective will help inform them in the process of developing other thematic toolkits.

The document describes the purpose of the PHE Toolkit and the steps that the BALANCED Project took in order to organize existing PHE resources, develop the topic map to include key aspects of PHE approaches and establish the broad overarching framework for helping new and familiar audiences to use the PHE Toolkit in an efficient and user-friendly manner. At the same time, there are several guidance documents now on how to create a toolkit on the K4Health toolkit site, located at <http://www.k4health.org/toolkits>. This document references guides developed by the USAID-supported Knowledge for Health (K4Health) Project and complements their technical guidance for toolkit development.

## ***Introduction***

The PHE Toolkit is an online library of documents and resources on projects, policies, training materials, case studies and research related to PHE. It is part of a larger set of health and development Toolkits produced by the USAID-supported Knowledge for Health (K4Health) Project managed by the Johns Hopkins University Center for Communication Programs (JHU/CCP). Located at <http://www.k4health.org/Toolkits/phe>, the PHE Toolkit provides one central repository to which health, family planning, development and conservation program managers and implementers, policymakers, researchers, academics and educators can contribute their own PHE information and knowledge, and where they can easily locate and access the best of that contributed by others. The PHE Toolkit is made possible through the collaboration of K4Health and the BALANCED Project. This interactive online resource represents the dynamic collaboration of several PHE partner organizations, which helped to build the overall toolkit framework and recommended resources.

K4Health prepared a "Guide for Building Collaborative Toolkits" which recommends several techniques for determining topic-specific categories for tabs and headings. The BALANCED Project PHE Toolkit Working Group used most of the methods described in the guide, and chose to take the extra step of preparing a topic map as a way to reach technical consensus and organize Toolkit resources. This document describes the topic mapping technique employed by the BALANCED Project PHE Toolkit Working Group (referred to in this document as the PHE Toolkit Working Group).

### ***What is a Topic Map and Why Should You Prepare One?***

A topic map is a way to organize information so that it can be easily found. The term is frequently used in discussing how to organize online collections of information that can be linked to topic headings in multiple ways and searched in just a few seconds using search engines such as Google, Yahoo, or Bing. One expects online searches to provide us access to all available texts, documents, images or other media in a collection that meet our search criteria and very few or none that do not meet these criteria. Sometimes we get no results and other times we get millions of web pages and document links.

Because different authors may write about the same subject/topic using very different terms for a similar concept or may frame a subject using a different conceptual approach, we need the help of a "topic map" in order to find relevant content from the dozens, hundreds or thousands of documents that may exist online.

A topic map operates somewhat like a thesaurus—i.e., helping us find additional words or phrases (sometimes more appropriate words or phrases)—to express an idea. It does this by associating words with each other and offering examples of how the words are used. It helps us decide if the word or phrase is the right one for our purposes. The function a thesaurus serves for a singular word or phrase is similar to the function a topic map serves for a collection of documents.

The grey and published literature on PHE is relatively limited (a few hundred works and documents), making it relatively easy to conduct a comprehensive analysis. However, since the first PHE projects were initiatives in the 1990s, PHE terminology and concepts have been shifting. Added to this, there are unique phrases used across different PHE documents and those practicing or writing about PHE in different regions and languages. For example:

- Terms can mean different things within a single knowledge domain. In the field of PHE, the term "champion" can refer to a community ("champion communities" in Madagascar) or to individuals ("PHE champions" in the Philippines). The methods, cultural and political setting and case studies about each kind of champion may be different enough to merit listing as unique topics. Those who know the difference may want to get only those documents that pertain to just one of these two types of champions. Those who do not know the difference will appreciate having the two terms differentiated and used appropriately.
- Documents can remain hidden if topics are not derived from terms actually used by authors. USAID, a key proponent of the PHE approach, offers two ways to search its vast collections of documents and content. One is to use a search system based upon the agency's own thesaurus, prepared in 1998. Another is to use a customized Google search tool. The concept of "scaling-up" from pilot projects to broader applications is a key concept in PHE. If you search the USAID website using its thesaurus-based search tool, no documents appear. The reason is that the term/phrase "scaling-up" is not included in the thesaurus. Meanwhile, a custom Google search yields 239 potentially relevant documents for the term "scaling-up."

Areas of high biodiversity are another key focus for PHE programs. A search using the USAID website's thesaurus tool produces no documents with the term "biodiversity", but 914 relevant documents with the term "biological diversity". The reason is the USAID thesaurus incorporates only the latter term in its classification of documents. A Google search using the term "biodiversity" finds only two documents and 18 when using the term "biological diversity". Yet, an analysis of PHE documents finds a strong preference by authors for the term "biodiversity" vs. "biological diversity".

The challenge for the topic of PHE is to organize and label content and find documents in a field that by definition integrates across disciplines and topics. While PHE practitioners and researchers will likely assume documents labeled as PHE emphasize an integrated approach, and only such documents should be posted on a website searching on the phrase "integrated approach" should not retrieve every document in the collection. A PHE topic map needs to make it easy to determine the unique content and contribution of each document and to respond to a search on the PHE Toolkit by providing only those documents that meet the specific search criteria that are set out by the user.

### ***Preparing a Topic Map within the Framework of the K4Health Website***

K4Health Toolkit technical working groups are free to start from the "big picture" and concentrate on the main concepts that will be covered, or to examine their available materials

and content and determine an overall structure using various suggested techniques. The PHE Toolkit Working Group used both approaches, by examining the content of existing materials and in turn using the concepts to identify areas where content should be located and included.

The following steps were used in preparing the topic map for the PHE Toolkit.

- 1) Define the subject that is the focus of the topic map using topic-specific categories.
- 2) Assemble the initial collection of document titles and types, from the previously existing PHE web site.
- 3) Analyze the contents of this initial collection to determine key words and phrases.
- 4) Compile a list frequently used terms and compound phrases from the PHE document collection.
- 5) Compare available topic lists or thesauri with the actual documents in hand.
- 6) Create and apply a simple thesaurus scheme for PHE to identify terms that are broader or narrower than each other; related to each other; and preferred and not-preferred.
- 7) Re-examine the collection of documents and materials to determine if they appropriately fall under the subject of PHE and apply card sorting to assign the documents to tab and sub-tab headings.
- 8) Ask domain experts and potential users of the Toolkit to review proposed tab headings and sub-headings and make final revisions.
- 9) Prepare abstracts for selected documents including key terms from the thesaurus and topic map.

## **1. Define the subject that is the focus of the topic map using topic-specific categories**

The subject is the highest level of the topic map. In the case of K4Health website, PHE is the title of the Toolkit itself. Below the subject are the main topics, used to create the main tabs on the Toolkit. Topics cover the different facets of the subject that are relevant to the developers of the Toolkit/document collection. While it may be useful to search for other topic maps, indices or guides to the subject, there is no one universal topic map that covers all subjects involving population, health, and environment in a uniform and integrated way. In the end, and for practical purposes, the PHE Toolkit Working Group established its own version of a topic map for the subject at hand.

Population, Health and Environment is an existing area of investment by USAID, the David and Lucile Packard Foundation, Johnson & Johnson, and other donors, as well as major non-governmental organizations (NGOs). USAID states "The key objective of [PHE] projects is to simultaneously improve access to health services while also helping communities manage their natural resources in ways that improve their health and livelihoods and conserve the critical ecosystems they depend upon." To broaden the subject so that it encompasses the full range of research, projects, practice and organizations, the subject selected for the topic map was "The PHE Approach".

## 2. Assemble the initial collection of document titles and types of material from the previously existing PHE web site

The PHE Toolkit initially included a limited set of 68 documents comprised of 57 from a previous PHE site plus 11 others identified by the BALANCED PHE Toolkit Working Group as highly relevant. While this initial document collection did not include the full body of PHE literature, it did utilize the majority of PHE key words. Again, because the total collection of PHE documents is small, an analysis showed few variances in usage of the most frequently cited terms across the document collection.

For building the document collection and maintaining it over time, it was useful to have a spreadsheet, database or bibliography that included a number of fields. This included fields for those attributes required as part of document uploading process on the K4Health.org website; fields to assign each document to a Toolkit tab or sub-tab; fields for document characteristics; and a field to provide links to the documents themselves.

### 3. Analyze contents of documents to determine key words and phrases

Once the PHE Toolkit Working Group had its documents assembled, it analyzed the tables of contents or headings from these documents to generate a list of key words and top level terms—this list would reflect how authors of individual works organize the topics. This list was the start of a topic mapping exercise—arranging these key words and terms into a hierarchical or lattice-like structure as a way to see what patterns emerge.

#### **BOX: Example of a Document Table of Contents as the starting point of a PHE Topic Map:**

*Healthy People, Healthy Ecosystems: A Manual on Integrating Health and Family Planning into Conservation Projects* by J. Oglethorpe, C. Honzak and C. Margoluis published by WWF in 2008 uses the highest number of PHE terms. Its table of contents for "Chapter 3: Types of Health and Family Planning Activities in PHE Projects" provides a useful starting point for preparing a topic map for PHE, since it incorporates a bundle of interrelated activities that might be supported by a PHE program in a community or area:

#### **3.1 Water, sanitation and hygiene**

- 3.1.1 Access to improved water supplies
- 3.1.2 Improved sanitation
- 3.1.3 Better hygiene practices
- 3.1.4 Solid waste disposal

#### **3.2 Community-based first aid**

#### **3.3 Maternal and child health**

- 3.3.1 Maternal health
- 3.3.2 Child health
- 3.3.3 Nutrition and food security

#### **3.4 Infectious diseases**

- 3.4.1 Malaria
- 3.4.2 Diseases at the wildlife-livestock-human interface
- 3.4.3 Acute respiratory infections and fuelwood

#### **3.5 HIV/AIDS**

#### **3.6 Reproductive health and family planning**

- 3.6.1 Family planning
- 3.6.2 Female genital cutting
- 3.6.3 Sexually transmitted infections

#### **3.7 Strengthening health systems**

- 3.7.1 Infrastructure
- 3.7.2 Training of health workforce
- 3.7.3 Supply chain management
- 3.7.4 Delivery of services
- 3.7.5 Health information systems

#### 4. Compile a list of frequently used terms and compound phrases from the PHE document collection

There are several approaches to identify relevant terms. One way is to conduct a mapping exercise—as a way to get the perspective of individuals outside of the teams who might be working on developing K4Health toolkits and to “vet” the team’s analysis.

The PHE Toolkit Working Group chose to identify the documents that take the broadest view of the subject and then compare the terms used in these core documents to identify your “candidate” list of key terms. It used a function of Adobe Acrobat Professional to create a full text index of the collection of 68 PHE documents. The software quickly scanned the collection of documents and generated rough estimates of the number of documents that used the “candidate” topic terms and how frequently those terms were used. This type of search can also identify the specific sentences where a term is used, making it easy to see if a term is used in different ways by different experts.

For the PHE Toolkit, these exercises led to first 4,012 “candidate” topic terms. This was reduced to 457 by adding the criteria that a term had to appear at least five times per document, *and* be used in at least two documents.

The PHE Toolkit Working Group took this same collection and converted all of the PDF documents to a text-only format. It then used a freeware program (Extphr32) to analyze how often a phrase (vs. a single word) appeared in each document and in the collection overall.

Separately, the PHE Toolkit Working Group conducted an analysis of *all* meaningful phrases in the documents. This generated approximately 19,000 “candidate” phrases of one to five words, which were later reduced to 5,384. This phrase list guided selection of the final “candidate” topic terms as outlined in Table 1. Finally, the full corpus of PDF formatted documents was analyzed using professional text analysis software (Atlas Ti) to detect patterns for how the most common

**Table 1: List of Key Words or Phrases found in 68 PHE documents**

Phrase	Rank	Frequency of use
HEALTH	1	2982
PHE	2	2585
PROJECT	3	2178
POPULATION	4	1947
COMMUNITY	5	1439
CONSERVATION	6	1278
PLANNING	7	1180
PROJECTS	8	1161
FAMILY	9	1120
ENVIRONMENT	10	1117
DEVELOPMENT	11	1091
ACTIVITIES	12	1048
FAMILY PLANNING	13	959
PROGRAM	14	879
USAID	15	827
LOCAL	16	817
COMMUNITIES	17	804
SERVICES	18	799
ENVIRONMENTAL	19	794
MADAGASCAR	20	774
AREAS	21	741
INTEGRATED	22	734
FP	23	713
PROGRAMS	24	695
ORGANIZATIONS	25	638
NATURAL	26	628
WOMEN	27	615
RESOURCES	28	599
WORK	29	589
SUPPORT	30	587

terms were used. Just six of the documents used 400 or more of the 457 topic terms. However, all six covered the full spectrum of PHE issues and included a wide range of case study examples, and helped greatly in guiding subsequent decisions.

## 5. Compare available topic lists or thesauri with the actual documents in hand

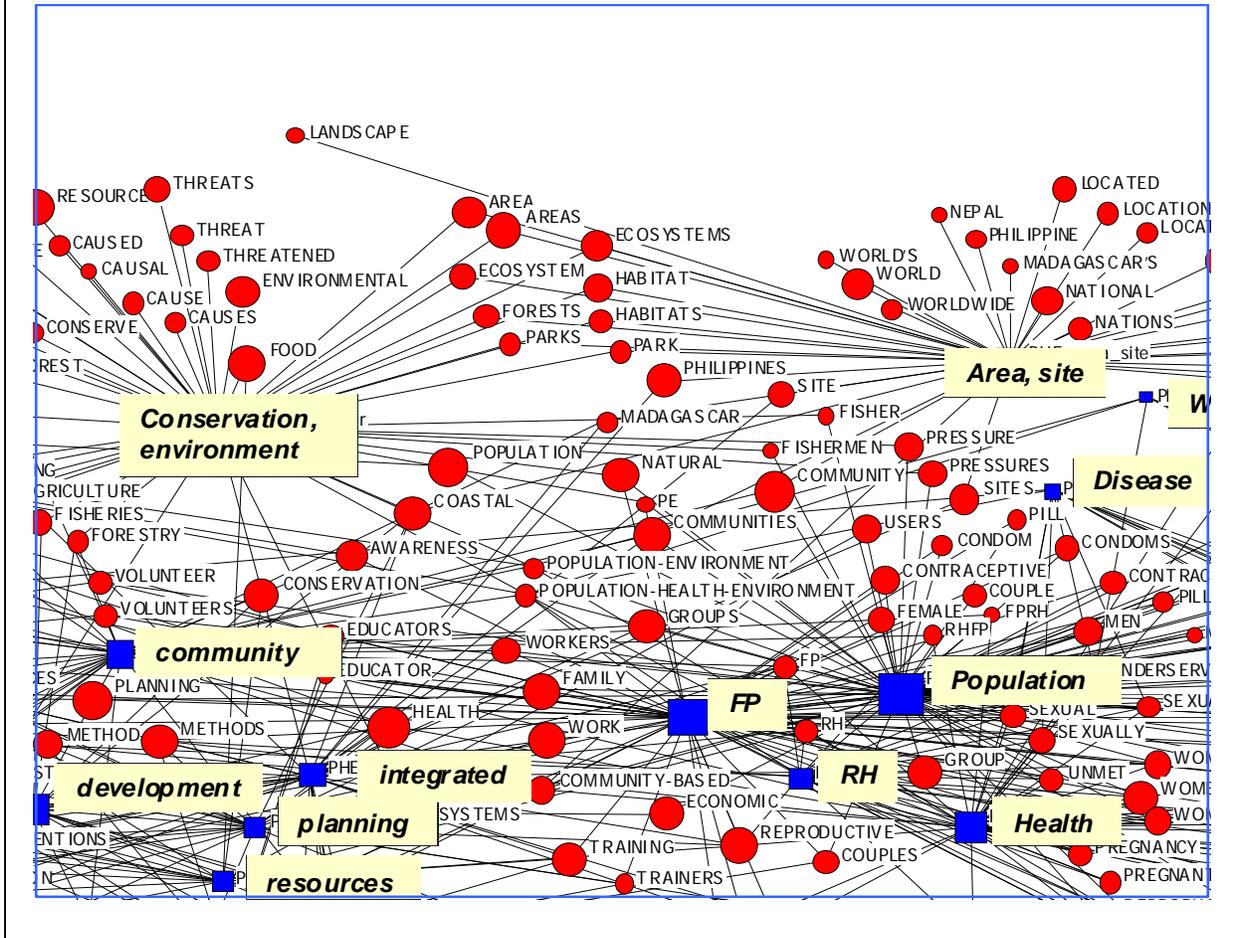
This step involves comparing the documents in hand with lists of other topics that have potential as new headings and subheadings on the PHE Toolkit webpage. This means asking the question: For example, which documents clearly belonged to the subject "PHE approaches"? Which belong to the main topics? Which did not belong or are represented in other K4Health Toolkits? Are there specific documents or topics missing from the collection on hand and if so, what are they? Did the available topic list help answer these questions?

For the PHE Toolkit Working Group, one major challenge was the fact that PHE is an integrated approach and as such it is common for a single PHE document to touch on a wide range of topics from family planning, to reproductive health, to HIV/AIDS, to the need for curtailing overfishing. In such cases, a Toolkit Working Group may need to identify not only single terms for the topic, but also compound phrases. For example, the PHE Toolkit Working Group found it was necessary to create terms that evolved from higher level topics:

<ul style="list-style-type: none"> <li>• area or site</li> <li>• communication</li> <li>• community + second key term</li> <li>• conservation or environment</li> <li>• development + second key term</li> <li>• disease</li> <li>• evaluation</li> <li>• FP family planning health</li> <li>• integrated + second key term</li> </ul>	<ul style="list-style-type: none"> <li>• organizations</li> <li>• planning + second key term</li> <li>• population</li> <li>• project or program</li> <li>• resource, as in natural resources</li> <li>• RH reproductive health</li> <li>• training</li> <li>• water and sanitation</li> </ul>
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K4Health advises toolkit working groups to use techniques such as index card sorting and affinity diagrams to organize and find patterns among the concepts and terms proposed by its members. The PHE Toolkit Working Group used word network analysis software to visualize how top-level topics and the detailed set of terms related to each other and to the PHE documents in the collection. An example of the affinity network captured in this way, using software programs Netdraw and UCINET, is shown in Figure 1. The PHE Toolkit Working Group also compared individual works on the same topic to identify terms that were unique to a particular work and that needed to be incorporated into its abstract.

**Figure 1:** Section of key word affinity diagram showing how PHE key words can be grouped together into broader concepts.



**6. Create and apply a simple thesaurus scheme for PHE to identify terms that are broader or narrower than each other; related to each other; and preferred and not-preferred**

Some subjects such as the "PHE approach" lack a readily identifiable collection of core documents. PHE as a subject is new and not well covered in existing thesauri and or text outlines. Vocabularies or glossaries do not represent the topic well.

Following is an example of how the USAID thesaurus treats the topic of "population dynamics", with the scope note providing the overall meaning of the term in the context of the thesaurus.

Three abbreviations identify the relation of "population dynamics" to other terms in the thesaurus:

BT: broader term  
NT: narrower term  
RT: related term  
Population dynamics

SCOPE NOTE: Population activity in terms of decline, increase, or stability.

BT: Demography  
NT: Fertility  
Migration  
Mortality  
Population decline  
Population growth  
RT: Population distribution  
Population impact

The thesaurus classifies the related phrase "population impact" as follows:

Population impact  
BT: Population and demography  
NT: Economic demographic interaction  
RT: Population dynamics

The USAID thesaurus captures a very small fraction of the PHE vocabulary, so it is not surprising, as noted above, that searches fail to return relevant documents USAID documents. Thus, the PHE Toolkit Working Group needed to take the initial steps in creating a subject thesaurus. To do this, it used the free software Thew32 to take the list of unsorted PHE terms and create a specialized thesaurus to use as a provisional reference work for the subject. The PHE Toolkit Working Group prepared a thesaurus based upon the reduced set of 457 topics and used the visualizations of the relationships provided by the affinity diagrams to provide another "check" on the team's selection of topics and help ensure the main ideas were captured in the document abstracts as they were prepared.

## **7. Re-examine the collection of documents and materials to determine if they appropriately fall under the subject of PHE and apply card sorting to assign the documents to tab and sub-tab headings**

The PHE Toolkit Working Group used a type of card sorting to array the existing collection of PHE materials under the top-level topics or "headings" which eventually became the basis of the top level tabs of the PHE Toolkit. At this stage the working group began to notice that frequently the title of a document was misleading. As one scans through a document in preparation for writing its abstract, the content of that document turns out to emphasize something substantially different than what can be inferred from the title.

Some documents in the PHE collection can appropriately be assigned to multiple topics and sub-topics. While the K4Health Toolkit approach is flexible, it also emphasizes the need for simplicity and setting reasonable limits on the number of categories assigned to any one document. One thing the PHE Toolkit Working group recognized is that documents that are a compendium of PHE projects, or that represent a comparison of PHE cases, or that offer a collection of training manuals better represent the overall repertoire than do works that cover individual case studies of a specific situation in a specific place. The topic map should have a way to handle both the former, i.e., documents covering a broad range of topics and situations, that need to be under more than one sub-tab, as well as those documents that are highly specific and are best listed in only one place.

## **8. Ask domain experts and potential users of the Toolkit to review proposed tab headings and sub-headings and make final revisions**

This step involved preparing a table of draft tab and sub-tab headings; examining each document in the collection; and assigning each candidate document to a tab heading and one to three sub-headings that best reflect the content of the document. Next, the PHE Toolkit Working Group prepared brief explanatory text for each tab and sub-tabs. Ideally this text should effectively: 1) provide a quick overview of the subject for users of the site who are non-experts and, 2) avoid being too oversimplified for subject matter experts. Finding this balance was important as visitors to websites take just minutes to decide whether or not the site is worth their time. Once the draft text was completed, the PHE Toolkit Working Group asked experts with different perspectives on the topic of the Toolkit to review the text. In the case of the PHE Toolkit this step led to the team's making some additional revisions. Following is a sample of the explanatory text used for one of the PHE Toolkit tabs.

### **Example 1:**

#### **TAB: Global Analysis and Assessment**

The broader community of researchers and leaders in PHE are continually preparing independent, reflective, thought-provoking analysis and discussion of PHE projects, approaches, research and results that can help orient both new and experienced individuals in PHE approaches as they explore and expand their understanding of PHE. The documents and links contained here include reference to peer reviewed journal articles, research theses and publications and other information to help the community of practice learn and evolve.

#### **SUB\_TAB: Lessons and reflections for learning**

Independent PHE research contributes to the overall learning and knowledge management of the global community. This section contains documents and links that touch on important gaps in existing documentation, analyses and discussion. Most of the links in this section are to freely available downloads.

## 9. Prepare abstracts for selected documents including key terms from the thesaurus and topic map

A feature of the K4Health Toolkits is one can conduct searches of topics and sub-topics along with their descriptive text, document titles and document abstracts. Creating a list of six to 10 key words that pertain to each document is useful. For the document collection in the PHE Toolkit, this helps ensure that abstracts reflect why the document belongs in the overall collection and its specific value or contribution to the subject/field of PHE. A 100-word abstract can adequately convey this level of information, a longer abstract of approximately 250 words can also offer a substantive summary of the entire document. The combination of document abstracts and the explanatory text for the tabs and sub-tabs should be sufficient to educate those who are new to the topic of the Toolkit and assure those topic experts that the collection represents high quality materials that are broadly representative of the content of the subject, including points of view and theories. Following is a sample abstract.

### **Example 2:**

#### **Tab: PHE Approaches**

#### **Sub-tab: Family Planning + Environment**

Document: Oglethorpe, J., Honzak, C., Margoluis, C. 2008. Healthy People, Healthy Ecosystems. Washington, D.C.: WWF.

#### *Abstract:*

Several conservation organizations have started integrating health and family planning into conservation projects. This integration has multiple benefits. Often conservation practitioners recognize the potential value of integrated PHE (population-health-environment) projects but need guidance on how to effectively incorporate P and H components into their project or on how to create a PHE project from scratch. This manual was created as a resource for these practitioners. It reviews not only the how, but also the why and what of PHE projects. We have defined PHE projects in the manual as Projects that integrate health and/or family planning with conservation activities, thereby seeking synergistic successes and greater conservation and human welfare outcomes than if they were implemented in single-sector approaches.

Google will utilize these terms from the abstract together with a key word index of the overall k4health.org web site as users search the site and its Toolkits.

As a result of the topic mapping exercise conducted as part of the developing the PHE Toolkit, the Toolkit was organized in the following way:

## **Structure of the PHE Toolkit** (as of December 2009)

### **TAB 1 WHY PHE?**

- Sub-Tab 1A: Addressing Gender Equity Issues
- Sub-Tab 1B: The Demographics of Population Growth and Migration
- Sub-Tab 1C: Environmental Impacts and Threats to Biodiversity
- Sub-Tab 1D: The Legacy of Integrated Conservation and Development Projects (ICDP)
- Sub-Tab 1E: Unmet Rural Community Needs
- Sub-Tab 1F: The Value-Added of PHE Approaches
- Sub-Tab 1G: For Educators and Researchers

### **TAB 2 PHE APPROACHES**

- Sub-Tab 2A: Community-based Coastal Management + Health/Family Planning
- Sub-Tab 2B: Community-based Forest Management +Health/Family Planning
- Sub-Tab 2C: Family Planning + Environment
- Sub-Tab 2D: Health + Environment

### **TAB 3 CURRENT PHE PROGRAMS**

- Sub-Tab 3A: PHE Program and Project Profiles
- Sub-Tab 3B: State-of-the-Art Implementation of PHE Interventions

### **TAB 4 COMMUNICATIONS, OUTREACH, AND ADVOCACY**

- Sub-Tab 4A: Advocacy for Supporting PHE programs
- Sub-Tab 4B: Creating Policy Communities
- Sub-Tab 4C: Integrated Messaging (IEC)
- Sub-Tab 4D: Outreach Events, and Conferences
- Sub-Tab 4E: Nurturing PHE Champions
- Sub-Tab 4F: Working with the Media

### **TAB 5 CAPACITY BUILDING AND FIELD-BASED RESOURCES/TOOLS**

- Sub-Tab 5A: Community Planning
- Sub-Tab 5B: Environmental Management (Natural / Coastal Resources Management)
- Sub-Tab 5C: Environmental Health and Sanitation
- Sub-Tab 5D: Family Planning / Reproductive Health (FP/RH)
- Sub-Tab 5E: Monitoring and Evaluation (M&E)
- Sub-Tab 5F: Networking/Leadership for PHE
- Sub-Tab 5G: Project Design

### **TAB 6 COUNTRY/REGIONAL EXPERIENCE**

- Sub-Tab 6A: East Africa Region
- Sub-Tab 6B: Latin America Region
- Sub-Tab 6C: Madagascar
- Sub-Tab 6D: Nepal
- Sub-Tab 6E: The Philippines

## **TAB 7      GLOBAL ANALYSIS AND ASSESSMENT**

Sub-tab 7A: Lessons and reflections for learning

Sub-Tab 7B: Peer-Reviewed Literature

## **TAB 8      EMERGING ISSUES IN PHE**

Sub-Tab 8A: Environmental Security

Sub-Tab 8B: Food Security

Sub-Tab 8C: HIV/AIDS and Environment

Sub-Tab 8D: Human Migration

Sub-Tab 8E: Population and Climate Change

Sub-Tab 8F: Scaling-Up PHE efforts

Sub-Tab 8G: Zoonosis

### ***Some Final Thoughts***

The K4Health Toolkit structure is designed to be flexible and accommodate growth and evolution of content over time. The PHE Toolkit document collection has already doubled in size since it was first designed, and the Tab structure has also evolved. The PHE Toolkit Working Group and the broader PHE community of practice continues to survey legacy documents, fill in gaps in coverage of the topic, and add new materials as they are released. As K4Health Toolkits have increased in number and expanded in content, the unique role and topic domain of the PHE Toolkit is easier to see, and the presence of so many complementary materials is an important advantage.

Most of the documents posted to date in the PHE Toolkit are high quality, self-published "grey" literature. Where practicable, the PHE Toolkit links from the document abstract directly to the author's website. The PHE Toolkit Working Group has encountered an interesting characteristic of the PHE repertoire that has been posted so far. We examined the citations used by PHE authors and determined two facts. About 55 percent of the citations were to grey literature, and 45 percent to journals and books that represent peer-reviewed work. Also, these two types of literature tend not to reference each other, so the PHE Toolkit initially is probably under-representing topics covered by peer-reviewed materials, since we cannot upload copyrighted documents and many journals restrict public access to their content. While it is useful for us to link to the journal abstracts of peer-reviewed materials, as is the practice in other K4Health Toolkits, we also need to consider other ways to aid users of the site to gain better access to materials on PHE topics more fully addressed by the research community. One approach is to prepare short reviews of recently published research on PHE themes or create somewhat longer document abstracts in order to give Toolkit users a better idea of the relevance of a peer-reviewed paper to their information needs. This and other challenges are being addressed.

Over time, we hope that the topic map and the tab structure of the PHE Toolkit will help encourage both practitioners and researchers to fill some of the gaps in knowledge by identifying missing resources or creating new works that advance the practice.



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