



Iwas Sakuna (Prevent Disaster) -Kids' Training

*The grant gave me the opportunity to write a very useful paper for communities by doing a risk assessment involving children. I learned a lot about children's needs and contributions for significant risk reduction. My organization's NGO partners are now doing child-oriented participatory risk assessment and planning.*

- Mayfourth Luneta

## Child-Oriented Participatory Risk Assessment and Planning

Child-  
Oriented  
Participatory  
Risk  
Assessment  
and Planning

PHILIPPINES



Grantee

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### Abstract

San Mateo is a fast urbanizing town close to Metro Manila. It covers Barangay<sup>1</sup> Banaba, which is located at the junction of the Marikina and Nangka Rivers. The North and South Libis are the most frequently flooded areas in Barangay Banaba, where most of the residents are informal dwellers. As children (0 to 17 years old) comprise more than half of the population, they are most affected whenever flooding occurs. The research aimed to produce risk assessment tools for children to know their needs, vulnerabilities, and capacities to ensure an appropriate basis of plans for children. Thus, the Child-Oriented Participatory Risk Assessment and Planning (COPRAP) was conducted in this barangay from September 2005 to June 2006.

From the development of the actual research plan to the implementation, the grantee worked alongside a core group of 14 community researchers from the barangay local government officers, Buklod Tao, and students of the Center for Positive Future.

Recognizing that children are actors in disaster risk reduction with unique perspectives, needs, and contributions distinct from adults, the COPRAP involved at least 140 children from the barangay's seven puroks<sup>2</sup> in hazard vulnerability capacity assessment. Discussions with children on disaster risks, community problems, and solutions were facilitated through drawings and clay work on safe and unsafe places, dangerous things, and role playing of responses before, during, and after a disaster; while discussions with adults focused on flooding, landside hazards, and socio-economic problems using hazard map and focus group discussions.

The risk assessment results and proposed preparedness and mitigation solutions were presented and discussed in a community assembly. The Research Team chose specific risk reduction

measures that can benefit not only the children but the whole community.

The COPRAP process and results were shared with neighboring barangays on May 17, 2006 together with the validation of the sample toolkit. An English translation of the toolkit contains a short description of each of the activity for hazard vulnerability capacity assessment, objectives, materials, and procedures.

### Hazard Addressed

Although many participatory risk assessment and risk reduction action planning methods and tools have been developed in the Philippines, this research is a first in involving children in risk assessment in an urban flooding setting. As staff of the Center for Disaster Preparedness (CDP), the grantee had been recently involved in the use of COPRAP in Southern Philippines to promote children's participation in disaster risk management as an integral part of local development planning and strengthening of local government structures. CDP conducted COPRAP in the seven barangays of the municipality of Pikit, Cotabato, Mindanao in Southern Philippines—site of armed conflict between Muslim separatists and the Philippines army. Its main partners were the barangay local government units.

The experiences and insights from this activity have provided an opportunity for the researcher to innovate the said approach for flooding hazards. This initiative paved the way for conceiving the COPRAP concept and implementing it in an urban flood prone area.

Majority of the country's populace are exposed to perennial flooding. The COPRAP is particularly

<sup>1</sup> The barangay or village is the smallest political unit in the Philippines. Barangay Banaba is part of the municipality of San Mateo in the Province of Rizal.

<sup>2</sup>The barangay is further subdivided into puroks or areas. Barangay Banaba is comprised of seven puroks.

valuable and beneficial to Filipino children because they are among the most vulnerable groups in the face of calamities. The International Committee of the Red Cross (ICRC) has reported that natural and human made calamities affect an average of 3.5 million Filipinos (about 4% of the population) a year. Considering that 39% of the total population is below 18 years, as many as 1.4 million children are affected annually by calamities.

As such, involvement of children in risk assessment is essential towards achieving holistic and sustainable development. The practice of COPRAP has become a fundamental tool in incorporating children's perspectives, contributions, and capacities before, during, and after a disaster. Indeed, this recent trend in the field of risk reduction is key to promoting disaster-resilient and safe communities.

The outputs of the COPRAP research consisted of the following: a documentation of the COPRAP process; development of a COPRAP toolkit from evaluation of tools used in hazard vulnerability capacity assessment and risk reduction action planning; development of a community risk reduction plan; and implementation of at least one doable child-focused risk reduction measure.

### Methodology

The Child-Oriented Participatory Risk Assessment and Planning (COPRAP) was conducted in Barangay Banaba, San Mateo, Rizal, Philippines from September 2005 to June 2006. From the development of the actual research plan to the implementation, the grantee worked alongside a core group of 14 community researchers from the barangay local government officers, Buklod Tao (BT)—the local people's organization implementing community based disaster management, and students of the Center for Positive Future (CPF)—the local high school.

**Orientation and Planning.** Forty-two participants from the community, including Buklod Tao members, and representatives of the local government unit attended the research project orientation on August 24, 2005 at the BT seed bank. After the researcher presented the COPRAP research project objectives, activities, and expected outputs, the research partners gave their comments and suggested the idea of involving the students of CPF in the research. A Core Group/ Working Group composed of representatives of the seven puroks of the barangay, BT, the Barangay Council, and CPF was formed to discuss tasks, schedules, and facilitate the COPRAP implementation.

**Child-Oriented Participatory Risk Assessment and Planning Training.** With the Training Team of the Center for Disaster Preparedness (CDP), the grantee facilitated the COPRAP training for the Core Group members from November 13 to 15. Eighteen participants (6 from CPF, 2 from the Barangay Council, and 10 from BT) underwent

training on the Basic Concepts on Community-Based Disaster Risk Management and COPRAP process, areas of inquiry, guide questions, and tools.

**Actual COPRAP Fieldwork.** The community partners agreed that COPRAP discussions also include female and male adults in the seven puroks to validate the data from the children and create a comprehensive community risk assessment—a broad picture of the risks, disaster management activities, and gaps in the barangay. The Core Group members divided themselves into four facilitating teams for the following groups: (1) male adults; (2) female adults; (3) teens aged 13-17 years;



*Clay activity with children to depict their houses and what they need before, during, and after a disaster.*

As the assessment continued from one purok to another, the Core Group adjusted the tools that they used. Later, they developed other tools to get data for the assessment. These were:

- "Make Me a Portrait"
- "Top Five Problems" for children and teens
- "Suggestions for oneself, parents, government, NGOs" for teens
- "What materials do they need before, during and after?"
- "What are things or animals that are considered dangerous?"

The fieldwork results were collated and analyzed in January and February.



*“Make Me A Portrait” activity with teens of Purok 2, Barangay Banaba before a flooding event.*

**Community Validation Workshop.** The results of the fieldwork were presented to the community for validation. Children and adult representatives from seven puroks discussed the community issues, problems, and proposed solutions. They also decided to refer the problems and issues unrelated to disaster risk to the Barangay Banaba Council for its regular planning.

### Key Results

Scheduling activities with the research partners and the community proved to be a challenge. Nonetheless, with the support of all partners, the project was able to accomplish its research outputs as planned with minor adjustments.

The main output of the participatory research was the COPRAP Toolkit, which was presented to the neighboring communities, Barangays Ampid 1 and Barangay Nangka, on May 17, 2006. The barangay representatives were asked to practice and experience the child-oriented risk assessment tools. The experience of Barangay Banaba on COPRAP Research Project was also shared with them.

The Core Group and community partners all agreed that the participatory and child-oriented risk assessment was very useful in knowing the needs of the children and the community before, during, and after a disaster. It led to the implementation of risk reduction measures that were appropriate for children and the community. It also strengthened inter-generational communication and exchange of ideas in Barangay Banaba as they explored ways to ensure the safety and development of their community.

Incorporating the experiences of Barangay Banaba, the COPRAP Toolkit now contains easy to follow guidelines. Based on COPRAP results, the research partners implemented disaster preparedness and risk reduction measures.

The Barangay Disaster Management Planning with the Barangay Officers and Buklod Tao focused mainly on creating an early warning system—

which was the people’s immediate concern— instead of developing a comprehensive disaster management plan covering pre-, during, and post-disaster responses.

The risk reduction measures that were identified and implemented were the following:

- Production of life vests for children. This not only promoted the safety of children, it also introduced livelihood opportunities for women in the barangay.
- Implementation of children’s disaster preparedness training.
- Production of children’s disaster preparedness identification and information cards.
- Placement of information tarpaulin boards in each of the seven puroks.
- Strengthening of early warning system, communication, and coordination between the local government, Buklod Tao, and the community.

COPRAP research results have stimulated interest among the neighboring communities, who have gotten in touch with Buklod Tao to help them undertake similar COPRAP activities. Barangay Banaba is thankful and proud of the opportunity to participate and contribute to knowledge building in disaster risk management.

Compared to the COPRAP implemented in Pikit, the process in Barangay Banaba was simpler and less formal, ensuring the participation of children and community residents throughout the whole process.

The publication of the training module from the COPRAP in Pikit has generated interest from the NGO community and the government. Discussion with PLAN International on how to integrate COPRAP in developing their disaster risk reduction and governance support programs is now in progress.

UNICEF has likewise expressed its interest to the Center for Disaster Preparedness. It wants CDP to prepare an orientation workshop for the National Disaster Coordinating Committee Technical Working Group and Office of Civil Defense regional personnel on COPRAP for all hazards.

Although time consuming, all partners were one in saying that the COPRAP process was effective and rewarding; and the outputs were more than commensurate to their inputs and contributions.

On hindsight, a digital camera should have been used instead of an instamatic camera for better photo documentation. The pictures of the most important activity, the COPRAP fieldwork, did not turn out very well. Pictures from the COPRAP fieldwork could have been used in the COPRAP toolkit.

### Contribution to Disaster Risk Knowledge

Although children are most vulnerable in any disaster situation, it is often the adults who act and speak on their behalf. A first in the Philippines, this research used participatory tools with children, youth, and community residents in an urban flooding setting.

The COPRAP adapted tools for hazard vulnerability capacity assessment from the family of tools associated with Participatory Rural Appraisal (PRA) and Participatory Learning and Action (PLA). It also discovered and developed new tools to actively involve children in risk assessment and identification of appropriate risk reduction solutions. Many of the tools are from play activities of children and youth that do not require elaborate facilitation skills.

COPRAP's key tools for children and youth included the following: "Representation of Myself", "Safe and Dangerous Places for hazard mapping", "Make Me a Portrait", "Dangerous Things", "My Need Before, During and After the Storm and Flood", "Top Five Problems", "Solutions to Problems", and "Suggestions to Those in Authority" (Annex A). For adults, it used "Hazard and Resource Mapping", "Sharing Livelihood", "The Organization in Our Place", and "Disaster Timeline".



*Children were provided life vests to promote a culture of safety*

The production of life vests has promoted the safety of children and introduced livelihood opportunities for women. Listed at the back of the children's identification cards are the disaster preparedness tips on the public awareness. The same tips are on tarpaulins placed in strategic places in each of the seven puroks of Barangay Banaba.

### Recommendations

- The Department of Interior and Local Government (DILG) should encourage the Barangay Disaster Coordinating Councils (BDCCs), Municipal Disaster Coordinating Councils (MDCCs), City Disaster Coordinating

Councils (CDCCs), Provincial Disaster Coordinating Councils (PDCCs), and the Regional Disaster Coordinating Councils (RDCCs) to involve children in the whole process of disaster risk management from risk assessment, planning and implementation.

- Local Government Units should include the children in their local disaster risk assessments and in their planning.
- The Center for Disaster Preparedness (CDP) should mainstream COPRAP in all its programs and services.
- Other Non-Government Organizations (NGOs) should have training on COPRAP and conduct it with their partner communities.
- Child Oriented INGOs such as Save the Children UK, Plan International, and United Nations Children's Fund (UNICEF) should advocate risk assessment among children and fund COPRAP endeavors throughout the country like publication and reproduction of COPRAP tools.
- The ProVention Consortium should continue to disseminate similar researches on risk assessment to advance the cause of the children.
- The Asian Disaster Preparedness Center (ADPC) should help in building linkages and partnerships on promoting COPRAP and developing other risk assessment tools with different stakeholders.
- Partners in this research like Buklod Tao, Center for Positive Future, and Brgy. Banaba should continue promoting COPRAP and sharing their experiences to other communities.

### Activities Done after the Project

- CDP advocated for COPRAP framework and tools. It is planning a forum and news features on children in disaster risk management.
- CDP mainstreamed the tool in CDP's training modules and materials in Community Based Disaster Risk Management.
- Buklod TAO shared the tools, results of the project to neighboring communities as well as uploaded the project result in their website.
- CDP used the tools in its other projects like the Promise Project in Dagupan (funded by USAID, implemented by Asian Disaster Preparedness Center through CDP with Local Government of Dagupan), and in Child Centered Disaster Risk Reduction Training in Southern Leyte for PLAN partners and children leaders.
- CDP sponsored the Forum/Exhibit on Children's Participation and Interactive Learning Activities in Disaster Risk Reduction on October 26, 2006.

## Ways Forward After the Research Project and Suggestions

The Center for Disaster Preparedness will undertake the following:

- Upload the tools produced in its website.
- Replicate the COPRAP experience to other urban flood prone communities.
- Develop COPRAP for other hazards.
- Organize a Forum of Stakeholders Regarding Risk Assessment.
- Reproduce the COPRAP Toolkit.

- Assign a facilitator and documenter.
- Select the appropriate assessment tools.
- Schedule the assessment and the target place.
- Gather the data and analyze them, identifying the strengths, weaknesses, risks, and elements affected by disaster, major problems, and the solution.
- Ratify the result in the General Assembly.
- Plan and identify which risk should be given solution first.
- Execute the plan together.

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## Annex A

### COPRAP Tools used in the actual Participatory Risk Assessment in Barangay Banaba, San Mateo, Rizal

#### "Sama-samang Pagsusuri ng Kalagayan at Pagpapalano ng mga Bata at Komunidad" (Participatory Assessment of the Condition and Planned Preparedness of Children and the Community)

##### Objectives

- To assess the risks, strengths, and weaknesses of children and the community.
- To plan based on the results of the participatory assessment.

##### Pointers in Participatory Assessment

- Identify the information needed in assessing the condition of the place.
- Study the basic concepts of risks, weaknesses, and strengths of the community.
- Meet with the barangay that will undertake the assessment, facilitate, and act as the participants. (It is better to have representatives from women, men, youth and children.)

## COPRAP'S KEY TOOLS FOR CHILDREN AND YOUTH:

### Tool 1: Representation of Myself

This refers to the drawing of a thing, animal, or plant that represents or illustrates yourself. This is best done at the beginning of the activity to make the participants feel at ease. Children aged 7 to 17 years may use this strategy.

Objective: To make the facilitator and participants feel at ease with each other, and to know and identify the strengths and weaknesses of the children participants.

Materials: Bond paper, crayon, pencil, or ball pen.

Procedure:

1. Ask the participants to draw the most fitting illustration of themselves. It may be a thing, animal, or plant.
2. Ask each participant to explain how his/her drawing reflects himself/ herself.
3. Thank the participants after the presentation.
4. Make sure that someone records the comments of each child.

### Tool 2: Safe and Dangerous Place

This refers to the picture of the child's place regarded as safe and dangerous. This tool is recommended to children aged 7 to 12 years.

Objective: To check if the child has knowledge of safe and dangerous places, and how s/he perceives them.

Materials: Bond paper and crayon or clay.

Procedure:

1. Ask each child to use crayon to draw or use clay to mold his/her house and its surroundings.
2. Ask the children to put identifying marks on the safe and dangerous places.
3. Allow them to report their work after the activity.
4. Make sure that someone records the comments of each child.
5. Summarize all the reports, emphasizing their commonalities and differences.

### Tool 3: Make Me a Portrait

This refers to the depiction of scenes by using the participants as parts of the picture. The facilitator will tell what they will illustrate like a hospital, zoo

or park, but the real intent of this activity is to see how they depict their condition and activity before, during, and after the flood. This tool has been used with children and teenagers aged 7 to 17 years.

Objective: To know how children participate before, during, and after the flood.

Materials: The participants themselves will serve as parts of the portrait.

Procedure:

1. Group the participants into five.
2. Ask them to create a portrait using their bodies and the things that are with them. Ask them to freeze into a tableau after 20 seconds.
3. Participants may be asked to depict a hospital, zoo or park, but it is more important to show their condition and activity before, during, and after the flood.
4. While they are in suspended animation, ask what they are trying to show, especially what they do before, during, and after the disaster. After all the group members have made an explanation, allow them to report what they did.
5. Make sure that someone records the comments of each child.

#### **Tool 4: Dangerous Things**

This refers to the use of clay or mud to mold dangerous things. This tool is more commonly used with participants aged 7 to 12 years.

Objective: To know the perspective of children towards dangerous things or animals.

Material: Clay of different colors.

Procedure:

1. Hand a piece of clay to each child.
2. Ask them to mold the things and animals they regard as dangerous.
3. Make sure that someone records the comments of each child.

#### **Tool 5: My Need Before, During, and After the Storm and Flood**

This refers to the use of clay to show the needs of children before, during, and after a disaster. This tool is more often used on participants aged 7 to 17 years.

Objective: To know the needs of children before, during, and after a disaster.

Material: Clay of different colors.

Procedure:

1. Mold the clay to resemble the things that the children need before, during, and after the flood.
2. Ask the participants to explain their molded clay.
3. Make sure that someone records the comments of each child.

#### **Tool 6: Top Five Problems**

This refers to the identification of the five primary problems of the children. This tool is commonly used on children aged 7 to 17 years. The problems may be classified into two: when there is flood and when there is none.

Objective: To know the five primary problems of the children.

Materials: Bond paper and pencil or ball pen

Procedure:

1. Ask the children to write what they consider their top five problems.
2. Allow them to report their answers.
3. Make sure that someone records the comments of each child.

#### **Tool 7: Solutions to the Problems**

This refers to the offering of solutions to the problems of the youth and children. This tool is used on participants aged 7 to 17 years.

Objective: To know the suggestions of youth and children in solving the problems that they face in the community.

Materials: Bond paper, and ball pen or pencil

Procedure:

1. Ask the participants suggest solutions to the problems of their community.
2. Allow them to report their answers.
3. Make sure that someone records the comments of each child.

#### **Tool 8: Suggestions to Those in Authority**

To teenagers aged 13 to 17 years, they may direct their suggested solutions to parents, Sangguniang Kabataan Leadership, Barangay Leadership, NGO, or fellow youth.

Objective: To know the suggestions of the teenagers to those in authority.

Materials: Bond paper, and ball pen or pencil.

Procedure:

1. Ask the participants to write down their suggestions to those in authority.
2. Allow them to report their work.
3. Make sure that someone records the comments of each child.

### **COPRAP'S KEY TOOLS FOR ADULTS:**

#### **Tool 1: Hazard and Resource Mapping**

This refers to the drawing of the map of the community including the areas considered dangerous. Also included in the map are the areas containing the wealth of the community and the areas that are easily affected by disasters (categorized as high, medium, low risk areas). This tool is used with adults (18 years and above), males and females in separate groups.

**Objective:** To know the safe and dangerous areas in the barangay. To locate its wealth and know what will be affected by disaster.

**Materials:** Manila paper, permanent markers, crayons, and plastic cover.

**Procedure:**

1. Ask the participants to draw a map of their barangay and to mark where the wealth, resources, and basic services are located.
2. Place a plastic cover over the map and use markers to spot the "most dangerous," "slightly dangerous," and "safe" areas. Each type of dangerous place should have a distinct color agreed upon by the group.
3. Allow them to report their work.
4. Make sure that someone records the comments.

### **Tool 2: Sharing of Livelihood**

This refers to the informal sharing about livelihood in the barangay, learning about alternative livelihoods during floods, and identifying livelihood problems. This also explores if there are child laborers. This is used with male and female adults grouped separately.

**Objective:** To know the livelihood in the barangay.

**Materials:** Paper and ball pen

**Procedure:**

1. Prepare the questions for the informal sharing of livelihood like:  
What is the primary source of income of the family? Of the Mother? Father? Children?  
What are the alternative livelihoods if there is flood?  
What are the problems and the solutions regarding livelihood?
2. Allow the participants to answer the questions.
3. Make sure that someone records the comments of each participant.

### **Tool 3: The Organizations in Our Place**

This refers to the description of organizations in the barangay. This is to identify the parties who can potentially help advance or hinder the development of the barangay.

**Objective:** To know the organizations that can assist in advancing disaster preparedness efforts.

**Materials:** Flipchart paper, permanent markers, colored paper.

**Procedure:**

1. Ask the participants to list the organizations within the barangay and those outside which maintains connection to it.

2. Draw circles representing the organizations on flipchart paper. The size of the circle should be proportional to size of the organization. Draw a heart at the center, symbolizing the heart of the barangay. The location of the organizations in relation to the heart (i.e., near or far) should indicate the level of closeness of the organization to the heart of the barangay people.
3. Allow them to report their work after everyone has finished. Ask them to explain why some circles are near to the heart, and some are not.
4. Make sure that someone records the comments of each participant.

### **Tool 4: Disaster Timeline**

This refers to the plotting of disasters experienced by the barangay from the present to the past. This activity is more appropriate with adults in the community, with males and females grouped together or separately. This also outlines the effect of the disaster and the actions they have taken to respond to it.

**Objective:** To know the disasters experienced by the barangay, their effects, and the actions taken by the people.

**Materials:** Manila paper, markers.

**Procedure:**

1. Ask the participants to draw and fill the chart below.
2. Allow them to report their work after everyone has finished.
3. Make sure that someone records the comments of each participant.

Year	Disaster	Effect	Action Taken		
			People	Barangay	NGO