

## **Participatory Situational Analysis of the Twenty-Two River Communities of Cagayan De Oro City**

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### **ABSTRACT**

This study of the University Community Extension Program aimed at empowering river communities and explored the problems besetting the twenty-two river communities of Cagayan de Oro City, Philippines. Data were gathered from key informants and residents through focus group discussion, in-depth interviews, and on-site observation. The Participatory Situational Analysis was used to engage community stakeholders in developing an action plan that incorporated the community's resources, concerns, and priorities. Findings of the study reveal that the priority problems of the river communities were related to employment/livelihood, education/literacy, environment, peace and order, and infrastructure. These findings may serve as basis for the crafting of programs and activities that the local government units, schools, and non-government organizations can work on collaboratively to improve the quality of life of the people in river communities.

**Key words:** Participatory Situational Analysis, River Communities

## INTRODUCTION

Cagayan de Oro River is located in Cagayan de Oro City, Philippines covering 22 river communities. This river is divided into three streams, namely upstream, midstream, and downstream. Upstream river communities include Tignapoloan, Mambuaya, Dansolihon, Bayanga, and Lumbia. Midstream communities cover Balulang, Carmen, Macasandig, Nazareth, and Barangay 1. Downstream communities include Barangay 1, Barangay 2, Barangay 6, Barangay 7, Barangay 10, Barangay 13, Barangay 15, Barangay 15, Barangay 17, Consolacion, Puntod, Macabalan, Kauswagan, and Bonbon. Partnership with different government and non-government organizations is being forged to protect and improve the environment and the quality of life of the people in the said 22 river communities. A partnership with Liceo de Cagayan de Oro University, a private higher education institution, was established through its Community Extension Office, the Liceo Center for Community Development (LCCD), and the Safer River, Life Saver Foundation Inc. (SRLSFI) acting as the lead office.

Dusaran (2006) contended that community extension programs should be based on the needs of the people and be decided upon by the people. He added that before any intervention can be implemented in the adopted communities, the development process requires a needs assessment as basis for the planning of programs which have to be implemented. Community development, as defined by Lassiter (1992), is the “process of working in collaboration with community members to assess the collective needs and desires for healthful change and to address these priority needs through problem solving, use of local talent, resource development, and management.”

The above definition underscores the importance of community planning to ensure successful implementation of any development program. Since development is always for the people, every development plan should be geared toward helping people address their needs, become more productive, realize their full potential, and bring about positive changes. Peoples’ involvement in development planning will not only lead to more responsive interventions but will also improve community ownership and learning.

This study describes the objectives, methods, and activities of the community consultations and presents the results of the participatory situation analysis. Specifically, this study (1) identified the resources available within the river community, (2) discussed the existing issues and concerns in the river community,

and (3) formulated possible solutions to the existing issues and concerns.

## FRAMEWORK

This study was anchored on the theory of Agarwal (2001) postulating that central to the idea of people's participation in development, however diverse and contested its definition and scope, is inclusiveness - the inclusion in decision making of those most affected by the proposed intervention. There is an emerging consensus that effective participation requires people's involvement not just as individuals but as a collective body such as a village or a community.

Community participation in an extension program aims for bottom-up involvement of the community throughout the program process. It is intended that community projects will be primarily community driven, owned, administered and managed, with facilitation provided through the University Community Extension Office. In this way, the community will play a central and driving role in problem identification, project concept proposals, planning and design phases, decision-making, social assessments, implementation activities, monitoring, and evaluation stages of the project cycle (PCU 2002).

On the part of the community extension professionals, community engagement is an ongoing, arduous, and necessary process for developing effective community extension programs. The challenges are amplified when the particular community concern is not prominent in the consciousness of the adopted community (Mosavel et al., 2005).

Increasingly, community extension professionals conduct participatory situational analysis to determine community extension program priorities prior to program development. A well- executed community participatory situational analysis provides critical information about a community's assets, needs, and opportunities. The results should serve as a solid foundation for building meaningful community extension programs (Singletary, 2010).

Participatory Situational Analysis (PSA) is a process of gathering and analyzing information to guide planning and action. It provides a synopsis of a particular situation at a given point in time that can be useful to different audiences for a variety of purposes to include policy and strategy development, advocacy, social mobilization, information exchange, stakeholder coordination and collaboration, and program design. It is broader in scope as it identifies priority problems in a complex situation and considers the underlying dynamics with a view toward identifying points of intervention. It also serves as a useful tool for building frameworks and creating mechanisms for continual assessment and analysis to

address and respond to the changing needs of the community. As such it should be a continuing process, updated and adjusted as necessary (FHI 360, 2005). PSA is the primary methodology used in conducting participatory community planning since it is an efficient method that helps the members of the community to share, enhance, and analyze their knowledge of life conditions and to plan and to act (Chambers, 1994).

Conducting a participatory situational analysis as a broadly inclusive, highly participatory process provides an opportunity to bring together key participants—those already engaged and those who will need to be involved as the process continues—to identify the best steps to take. If key stakeholders, especially community representatives, participate, the analysis will be grounded on the local context and produce more meaningful results than an analysis conducted by external technical advisors. Local involvement makes the results more credible to more stakeholders and is more likely to result in action (FHI 360, 2005).

## **OBJECTIVES OF THE STUDY**

The study aimed at providing a comprehensive picture of the 22 river communities of Cagayan de Oro City. Specifically, it sought to determine the (1) the profile of the river communities in terms of location, population, land area, and annual income; (2) assess the community resources; (3) identify priority problems; and (4) prepare action plans to solve the priority problems.

## **METHODOLOGY**

This study used the qualitative research design with focus group discussion (FGD), in-depth interviews, and on-site inspection as tools for data gathering.

As an entry protocol, the researchers asked permission from the Local Government Units to conduct the study. The researchers visited the community officials and explained to them the objectives of the study. At least two key informants from each river community were interviewed to obtain the profile of the river community.

The participants of the study were the river community LGU officials and officers of the Safer River, Life Saver (SRLS) Club. They were engaged in the Participatory Situational Analysis (PSA), which involved the following steps: (1) Resource Mapping, (2) Problem Analysis, and (3) Action Planning.

The participatory resource mapping was done to identify the strengths of and gaps within the community (Pyles, 2009, HRR 1998; Lamug and Catalan, 1995). Resource maps generated from the workshop allowed the community members to identify, locate, and classify resources within their community from the past to the present. According to Lamug and Catalan (1995), the resources' true value as perceived by the community member can be discovered thru resource mapping. Also, mapping exercise contributes to the understanding of the dynamics of civil society, which is important in ensuring the success of future policies and in identifying avenues for future research (April, 2008; Webber and Ison, 1995).

A problem analysis workshop was undertaken to determine the community people's views about the underlying causes of concerns in the community. The participants listed the root causes and probable effects of an identified problem. The step identified the causes behind a problematic situation that needs immediate solution, the effects, and the recommendations. Determining the effective linkage mechanism between the desirable and the undesirable condition requires the participants to formulate a plan that integrates all problems and resources of their community.

To find possible solutions to the identified problems, the participants were introduced to action planning. They were asked to analyze the causes and effects of an identified problem.

Common strategies to address the issues were identified collaboratively by the participants. The participants were then guided in the preparation of the community action plan, which led them to identify government organizations or agencies that the community can partner with in the implementation of community projects.

These projects and action plans require regular monitoring and evaluation to ensure that they are implemented strictly and well enough to bring about the desired changes in the community. As posited by Arances & Ledres (2004), "monitoring and evaluation system is a must for good management." Monitoring and evaluation are used to check if the community plan is moving towards the intended direction and is gradually attaining the objectives set by the community members (Casley, 1982).

## RESULTS AND DISCUSSION

The 22 river communities for the PSA were grouped into three based on their location in the Cagayan de Oro River - upstream, midstream, and downstream.

### Profile of the River Communities

Table 1. Profile of the River Communities

LOCATION	COMMUNITY	LAND AREA (in has.)	POPULATION 2012	INCOME 2012
<b>UPSTREAM</b>				
1	TIGNAPOLOAN	7,795.1200	4,767	2,570,850.00
2	MAMBUAYA	1,104.2872	2,927	1,824,176.00
3	DANSOLIHON	7,267.1920	5,386	2,701,304.36
4	BAYANGA	1,378.223	3,014	2,004,201.84
5	LUMBIA	3,320.3144	17,201	6,527,019.06
<b>MIDSTREAM</b>				
6	BALULANG	880.2526	37,152	13,090,759.43
7	CARMEN	956.6519	75,273	25,875,504.00
8	MACASANDIG	397.5847	25,321	9,959,993.64
9	NAZARETH	68.3080	10,636	6,171,744.88
10	BARANGAY 1	10.6006	431	1,856,674.44
<b>DOWNSTREAM</b>				
11	BARANGAY 2	3.6719	66	1,353,322.00
12	BARANGAY 6	4.3249	143	1,312,774.47
13	BARANGAY 7	5.9817	525	1,528,866.92
14	BARANGAY 10	4.7947	545	1,412,409.58
15	BARANGAY 13	8.7333	2317	2,281,847.43
16	BARANGAY 15	9.7944	137	2,199,140.46
17	BARANGAY 17	7.7070	2,347	1,913,990.96
18	CONSOLACION	49.4529	10,287	5,350,919.50
19	PUNTOD	164.8998	19,327	9,801,862.15
20	MACABALAN	45.1476	20,752	8,383,495.76
21	KAUSWAGAN	512.5286	36,492	15,541,373.27
22	BONBON	116.2752	9,593	4,083,486.25

Source: Socio-Economic Profile, 2013, City Planning and Development Office Cagayan de Oro City

As shown in Table 1, the upstream river communities have the biggest land area ranging from 1,104 has. to 7,795 has., followed by the midstream communities with land areas ranging from 10 has to 956 has. and the downstream

communities with land areas ranging from 3.6 has. to 512 has.

As to the population in 2012, The midstream communities had the biggest population with an average of 29,763 persons per community, followed by the downstream communities with an average of 8,544 persons per community and the upstream communities with an average of 6,659 persons per community.

In terms of the income, the midstream communities had the biggest annual income with an annual average income of P11, 390, 935.00 per community, followed by the downstream communities with an annual average of P 4, 596, 957.00 per community and the upstream communities with an annual average income of P 3, 125,510.00 per community.

### **Resources of the River Communities**

The resource mapping identified the different community resources available for the community people. These resources, as shown in Table 2, were categorized into four types as follows: human, natural, economic, and physical.

Table 2. Resource Mapping

COMMUNITY RESOURCES	U	U	U	U	U	M	M	M	M	M	D	D	D	D	D	D	D	D	D			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Barangay Hall	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Health Center	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Day Care Center	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Elementary Schools-Public	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Elementary Schools-Private	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
High School- Public	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
High School- Private	2	2	2	1	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
College/University	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sports Facility	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1
Community/Public Market	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
Commercial Area	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Industrial Area	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Subdivision/Residential	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Agricultural Area	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mining/Quarrying	1	1	1	2	1	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2
Dental Clinic	2	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Family Planning Clinic	1	1	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Recreational Park	2	1	2	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Labor Force	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sea Port	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Electricity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Water System	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Government Offices	2	2	2	2	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Hospital-Public	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Hospital-Private	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

LEGEND: 1- Available/present; 2- Not available/not present

U - Upstream

M - Midstream

D - Downstream



Table 3. Problem Analysis of the 22 River Communities, Causes, Effects, and Recommendations

LOCATION	COMMUNITY	PROBLEMS	CAUSE	EFFECT	RECOMMENDATION
1	TIGNAPOLOAN	Out of School Youth; Unemployment; Drugs; Petty Crimes; Endangered Water Shed;	Lack of Financial Capacity; Lack of livelihood opportunities; lack of sports and recreation facilities	Drugs; Domestic Violence;	Alternative Learning Systems; Livelihood Skills Training Program; Farming Inputs; Anti-Dangerous Drug law; Balik Lunilaw Kinayahan Program
2	MAMBUAYA	Kaugni; Illegal mining; Unemployment; Out-of-School Youth; Water System; Sanitary Toilets	Lack of employment opportunities; lack of skills; lack of sports facilities; Lack of Budget	Landslide Illegal Gambling; Drug Addiction;	Forest Rehabilitation and Protection; OSY Barangay Scholarship Program; Livelihood program; Anti-Dangerous Drug law; Water system installation; Strict implementation of City/Brgy Ordinance on Sanitary Toilets
3	DANSOLIHON	Garbage, Water Supply, Unemployment, Out-of-school youth, Sanitary Toilets	Lack of Budget; Lack of Financial Capacity; Lack of livelihood opportunities;	Drugs; Petty Crimes;	Solid waste Management; Water System; Alternative Learning Systems; Livelihood Skills Training Program; Farming Inputs; Anti-Dangerous Drug law
4	BAYANGA	Water System; Illegal Mining; Out-of School youth Unemployment, Garbage Sanitary Toilets	Lack of budget; lack of employment opportunities;	Health Problems; Drug addiction; Environmental Problems	Water source development program; Watershed rehabilitation program; Skills and livelihood programs; Anti-Dangerous Drug law; Strict implementation of City/Brgy Ordinance on Sanitary Toilets
5	LUMBIA	Garbage, Unemployment; Illegal Drugs; Endangered Water Source; Stray Dogs	Lack of NRP Area; Lack of Job Opportunities;	Flooding; Petty Crimes	Solid Waste Management; Skills and livelihood programs; Anti-Dangerous Drug law; Tree Growing; Implementation of city/barangay ordinance on

MIDSTREAM	COMMUNITY	PROBLEMS	CAUSE	EFFECT	RECOMMENDATION
6	BALULANG	Garbage; Dengue Cases; Squatters; pathways; livelihood	Laziness; Lack of Information on Dengue Prevention; Poverty	Flooding; Health Problems; Petty Crimes;	Solid Waste management; Information Campaign; Eliminate Squatting ; Provide job opportunities
7	CARMEN	Garbage, Unemployment; Informal Settlers Drugs Mendicancy	Laziness; Lack of Opportunities; Employment	Flooding; Illegal Gambling; Petty Crimes	Solid Waste Management; Skills Training; Implement Anti-squatting Law; Anti-Dangerous Drug law; Curfew Hours
8	MACASANDIG	Garbage, Stray Dogs, Dengue, Out-of-School youth Unemployment	Laziness; Irresponsible pet owners; Lack of Knowledge on Dengue Mosquito;	Flooding; Drugs; Gambling; Domestic violence	Solid Waste Management; Implementation of city/barangay ordinance on stray animals; IEC on Dengue; skills trainings; create job opportunities; promote livelihood activities
9	NAZARETH	Unemployment Drugs; Out-of-school youth; damage system	Laziness; Lack of Motivation and Quality; lack of sports and recreation facilities	Domestic Violence; flooding	Promotion for employment and livelihood opportunities; Proper waste disposal
10	BARANGAY 1	Stray Dogs; Out-of-School Youth, Street Kids/Mendicants Unemployment	Irresponsible Pet Owners; Poverty & Lack of Encouragement of parents; Lack of government programs for mendicants;	Stray Dog Dirt; Petty Crimes;	Eradicate stray dogs; minimize the number of Out- of-School Youth; Get rid of street kids mendicants; provide livelihood programs and employment opportunities

stray animals

DOWNSTREAM	COMMUNITY	PROBLEMS	CAUSE	EFFECT	RECOMMENDATION
11	BARANGAY 2	Fire Hazard; Unemployment; Garbage; Stray Dogs; indecent shows inside bars	Lack of Budget; Lack of Employment Opportunities; Irresponsible Animal Owners	Fire incidents; Petty Crimes;	Installation of Fire hydrants; Livelihood development project; Clean up Drive; Eradicate stray dogs; minimize the number of Out-of-School Youth; dialogue with bar owners
12	BARANGAY 6	Street Families; Health Problems; Out-of-school youth; Unemployment; Stray Dogs; garbage	Lack of Budget; Lack of information; High cost of education; High cost of housing; Laziness	Drop outs; petty crimes;	Coordinate with concerned govt. agencies; Low cost housing program; back to school program; basic health services; implementation of city/barangay ordinance on stray animals; Solid waste management
13	BARANGAY 7	Out-of-School youth; informal settlers; drugs; unemployment; drainage; stray animals	Lack of Budget; Lack of information; High cost of education; High cost of housing; Laziness; lack of sports and recreation facilities	Drug addiction; morality problems;	Access to education; facilitate informal settlers have safe and decent homes; Provide drainage system; Implementation of city/barangay ordinance on stray animals;
14	BARANGAY 10	Poor Drainage; Out of School Youth; Unemployment and livelihood; Garbage	Lack of Budget; Lack of information; High cost of education; High cost of housing; Laziness	Flooding; Petty Crimes	Drainage System; Coordinate with TESDA and Dep. Ed for Alternative learning System; Employment and livelihood promotion; Solid Waste Management

DOWNSTREAM	COMMUNITY	PROBLEMS	CAUSE	EFFECT	RECOMMENDATION
15	BARANGAY 13	Malnutrition; Out-of-school youth; informal settlers; sanitary toilets; garbage; unemployment	Lack of Budget; Lack of information; High cost of education; High cost of housing; Laziness	Petty Crimes; health problems; Drug Addiction	IEC on Health, Nutrition and Sanitation, coordinate with other agencies, Scholarship grants for OSY, Coordinate with PDEA, Solid Waste Management, Employment and Livelihood Promotion
16	BARANGAY 15	Drainage system, Drugs, health problems, informal settlers; peace and order, stray dogs	Lack of budget, irresponsible animal owners, lack of employment opportunities, lack of sports and recreation facilities	Flooding, petty crimes, drug addiction	Drainage System; Coordinate with CHO for medicines; IEC Campaign on Health, Nutrition and Sanitation; Anti-Dangerous Drug law, Curfew Hours; Implementation of city/barangay ordinance on stray animals
17	BARANGAY 17	Garbage; drainage; drugs; malnourish children, stray dogs	Lack of motivation, irresponsible animal owners, lack of employment opportunities; lack of sports and recreation facilities	Drug Addiction, petty crimes, flooding	Solid Waste Management; Implementation of city/barangay ordinance on stray animals; IEC on proper health, nutrition and sanitation ; skills trainings, create job opportunities; promote livelihood activities
18	CONSOLACION	Stray Animals, malnutrition, unemployment, informal settlers, garbage	Irresponsible animal owners; Lack of employment opportunities;	Drugs, domestic violence, illegal gambling, prostitution,	Solid Waste Management; Implementation of city/barangay ordinance on stray animals; IEC on proper health, nutrition and sanitation ; skills trainings, create job opportunities; promote livelihood activities

DOWNSTREAM	COMMUNITY	PROBLEMS	CAUSE	EFFECT	RECOMMENDATION
19	PUNTOD	Garbage, Stray Animals, Out-of-school youth, informal settlers, unemployment	Lack of motivation, irresponsible animal owners, lack of employment opportunities	Flood, petty crimes, flooding, teenage pregnancy, malnutrition	Coordinate with agencies for garbage and stray animals problems, Livelihood assistance program, educational assistance for OSY
20	MACABALAN	Garbage; drugs; Out-of-school youth; Informal settlers; unemployment	Poverty; Lack of employment opportunities; lack of sports and recreation facilities	Drug addiction; domestic violence; malnourished children;	Proper waste management; Information drive; Strict implementation Anti-Squatting law; skills development and livelihood enhancement program; Enforcement of Anti-Addiction Law
21	KAUSWAGAN	Flood; malnutrition; drugs; unemployment; Out-of school youth; garbage	Lack of employment opportunities; Lack of motivation; lack of sports and recreation facilities	Drug Addiction, Petty Crimes, Domestic violence	Construction of Drainage system; Advocacy on proper health, nutrition and sanitation, Supplementary feeding; Anti-Dangerous Drug law; Curfew Hours Employment and livelihood promotion; solid waste management
22	BONBON	Garbage, Malnutrition, Out-of-school youth, informal settlers, Unemployment	Laziness; Lack of Budget; Lack of information; High cost of education; High cost of housing	Flooding; Health Problems; Petty Crimes; Drug Addiction	Solid waste management; Construction of Drainage system; Advocacy on proper health, nutrition and sanitation, Supplementary feeding; Provide access to education; Anti-Dangerous Drug law; Curfew Hours Employment and livelihood promotion

Table 4. Priority Problems of the Twenty-two River Communities

PRIORITY PROBLEMS	U 1	U 2	U 3	U 4	U 5	U 6	U 7	U 8	U 9	U 10	U 11	U 12	U 13	U 14	U 15	U 16	U 17	U 18	U 19	U 20	U 21	U 22	Total	
<b>SOCIAL</b>																								
Out-of-School Youth	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓					✓	✓			✓	14
Malnourishment/Health												✓			✓	✓	✓		✓				✓	5
Squatters/Informal Settlers						✓	✓					✓			✓	✓	✓		✓	✓	✓	✓	✓	10
Dengue Cases						✓	✓	✓																3
Street Kids/Mendicants							✓	✓	✓			✓												4
Drugs	✓						✓	✓				✓				✓	✓				✓			7
Stray Dogs/Animals							✓			✓	✓	✓	✓			✓	✓		✓	✓				9
Indecent Shows											✓	✓												2
<b>ECONOMIC</b>																								
Unemployment/ Livelihood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	19
<b>POLITICAL</b>																								
Petty Crimes	✓															✓								2
Domestic Violence	✓							✓								✓			✓					6
<b>ENVIRONMENTAL</b>																								
Garbage			✓	✓	✓	✓	✓	✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
Illegal Mining	✓			✓																				2
Kaingin	✓																							1
Endangered Water Source	✓																							1
<b>INFRASTRUCTURE</b>																								
Sanitary Toilets	✓	✓	✓	✓									✓											4
Drainage System								✓									✓				✓			6
Water System	✓	✓	✓																					2
Pathways						✓																		1
Fire Hazard											✓													1

Table 3 presents the top priority problems of the river communities. From the problem analysis, different areas (social, economic, political, environmental, and infrastructural) were identified. The river communities deal with similar problems and issues.

**Social Problems.** One top priority problem raised by 14 river communities involved the out-of-school youth (OSY). Many of them are unemployed because of their failure to finish their studies due to financial constraints or lack of educational opportunities. Also, the parents are worried about their children's involvement in drug use and other vices that are rampant in their communities.

Other social problems are related to squatters/informal settlers, stray animals, drug addiction, health problems (malnutrition and dengue), and street kids/mendicants.

**Economic Problems.** Nineteen river communities cited economic instability, insufficient income, and unemployment among the residents as their major economic problems. Development initiatives in the Cagayan de Oro River failed to yield alternative income-generating or livelihood opportunities that match the technical skills of the river community residents.

**Environmental Problems.** Sixteen river communities identified garbage as serious environmental problem. The garbage clogs canals and drainages, adversely affecting the flow of water, thus causing flood in their communities even if the rains are not heavy. Illegal mining, quarrying, and kaingin were also cited as environmental problems the communities have to address.

**Civil/Peace and Order Problems.** Seven river communities identified petty crimes, drug-related crimes, theft, domestic violence, and gambling as major issues the communities have to confront.

**Infrastructural Problem.** Twelve river communities cited lack of budget for infrastructure projects resulting in lack or poor drainage system and sanitary toilets, rough and muddy roads, lack of water supply, and lack of recreational facilities.

### **Plan of Action for the Priority Problems**

After the participatory problem analysis, an action plan was formulated for the top five issues perceived as the most urgent and to have enormous impact on the community. The major areas of concerns are as follows: livelihood programs, education and literacy, environment, civil/peace and order, and infrastructure.



Table 5. Action Plan of the Twenty-two River Communities

LOCATION	COMMUNITY	PLAN OF ACTION
UPSTREAM		
1	TIGNAPOLOAN	Coordinate with DepEd for Alternative Learning Systems and TESDA for Livelihood Skills Training Program; Distribute Farming Inputs; Strictly Enforce the Anti-Dangerous Drug Law; Conduct Balik Lunhaw Kinaiyahan Program
2	MAMBUAYA	Adopt Forest Rehabilitation and Protection Program; Offer OSY Barangay Scholarship Program; Conduct Livelihood Program; Enforce the Anti-Dangerous Drug Law; Install Water System
3	DANSOLIHON	Coordinate with the City Council and Mayor's Office; Conduct Solid waste Management; Coordinate with DepEd for Alternative Learning Systems; Conduct Livelihood Skills Training Program; Ask Assistance for Farming Inputs; Strictly Implement the Anti-Dangerous Drug Law
4	BAYANGA	Coordinate with the City Council and Mayor's Office for Water Source Development Program; Create Watershed Rehabilitation Program; Conduct Skills and Livelihood Programs; Enforce the Anti-Dangerous Drug Law; Strictly Implement City/Barangay Ordinance on Sanitary Toilets
5	LUMBIA	Coordinate with CLENRO; Adopt Solid Waste Management; Conduct Skills and Livelihood Programs; Enforce the Anti-Dangerous Drug Law; Conduct Tree Growing; Implement City/Barangay Ordinance on Stray Animals with the Help of the City Veterinarian



MIDSTREAM		
6	BALULANG	Practice Proper Garbage Disposal; Conduct Clean-up Drive and Health Information Drive; Tap TESDA for Livelihood Skills Training; Strictly Enforce the Anti-Squatting Law
7	CARMEN	Adopt Solid Waste Management Program; Conduct Clean-up Drive; Strictly Enforce the Anti-Dangerous Drug Law, Anti-Mendicancy Law, and Anti-Squatting Law; Conduct Livelihood Skills Training
8	MACASANDIG	Adopt Waste Management; City Pound; Strictly Enforce City/Barangay Ordinance on Stray Animals; Conduct Clean-up Drive, Livelihood Trainings, Psycho-Social Interventions, and Health Information Drive; Observe Curfew;
9	NAZARETH	Conduct Rehabilitation Program; Partner with Business Entities; Do Drainage Check-up; Strictly Implement the Anti-Drug Addiction Law; Practice Proper Waste Management
10	BARANGAY 1	Coordinate with the City Veterinarian Office; Strictly Enforce City/Barangay Ordinance on Stray Animals; Coordinate with CSWD & House of Hope for Street Kids/Mendicants; Coordinate with TESDA for Livelihood Skills Training and Employment
DOWNSTREAM		
11	BARANGAY 2	Coordinate with the City Council; Install Fire Hydrants; Conduct Livelihood Development Project; Conduct Clean-up Drive; Eradicate Stray Dogs; Dialogue with Bar Owners
12	BARANGAY 6	Coordinate with DSWD; Coordinate with Concerned Government Agencies; Provide Low Cost Housing; Conduct Back-to-School Program; Provide Basic Health Services; Strictly Implement City/Barangay Ordinance on Stray Animals; Adopt Solid Waste Management
13	BARANGAY 7	Coordinate with the City Council; Provide Access to Education; Facilitate for Informal Settlers Safe and Decent Housing; Provide Drainage System; Implement City/Barangay Ordinance on Stray Animals

14	BARANGAY 10	Create Drainage System; Coordinate with TESDA and DepEd for Alternative Learning System; Promote Employment and Livelihood; Adopt Solid Waste Management; Conduct Tree Growing and Clean-up Drive
15	BARANGAY 13	Strictly Implement City Ordinances; Conduct IEC on Health, Nutrition, and Sanitation; Coordinate with Concerned Government Agencies; Offer Scholarship Grants for OSY; Coordinate with PDEA; Adopt Solid Waste Management; Promote Employment and Livelihood
16	BARANGAY 15	Create Drainage System; Coordinate with CHO for Medicines and IEC for Campaign on Health, Nutrition and Sanitation; Enforce the Anti-Dangerous Drug Law; Impose Curfew Hours; Implement City/Barangay Ordinance on Stray Animals
17	BARANGAY 17	Adopt Waste Management; Do De-clogging; Conduct Drug Rehabilitation; Coordinate with the City Veterinarian; Implement City/Barangay Ordinance on Stray Animals; Conduct IEC on Health, Nutrition, and Sanitation ; Promote Employment and Livelihood
18	CONSOLACION	Coordinate with the City Veterinarian; Adopt Solid Waste Management; Implement City/Barangay Ordinance on Stray Animals; Conduct IEC on Health, Nutrition, and Sanitation; Conduct Livelihood Activities
19	PUNTOD	Adopt Solid Waste Management; Conduct Clean-up Drive; Coordinate with Agencies on Problems with Garbage and Stray Animals; Create Livelihood Assistance Program; Provide Educational Assistance for OSY; Provide Counseling
20	MACABALAN	Adopt Proper Waste Management; Conduct Information Drive; Strictly Implement Anti-Squatting Law; Provide Skills Development and Livelihood Enhancement Program; Strictly Enforce the Anti-Drug Addiction Law; Conduct Clean-up Drive; Provide Rehabilitation Program
21	KAUSWAGAN	Construct Drainage System; Do Advocacy for Health, Nutrition, Sanitation, and Supplementary Feeding; Enforce the Anti-Dangerous Drug Law; Impose Curfew Hours; Promote Employment and Livelihood; Adopt Solid Waste

		Management; Coordinate with PDEA
22	BONBON	Adopt Solid waste management; Construct Drainage System; Do Advocacy for Health, Nutrition, Sanitation, and Supplementary Feeding; Provide Access to Education; Enforce the Anti-Dangerous Drug Law; Impose Curfew Hours; Promote Employment and Livelihood

### CONCLUSION

The study identified a range of important issues upon which the HEIs and NGOs can work collaboratively to improve the quality of life of the people living along the Cagayan de Oro River. These issues pertain to employment/livelihood, education/literacy, environment, peace and order, and infrastructure. These findings may serve as basis for crafting programs and activities that local government units, higher education institutions, and non-government organizations have to collaboratively initiate to the benefit of the river communities. These programs may include skills training for livelihood, literacy promotion, and proper waste management.

### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following are hereby recommended:

1. Build collaborative working relationship between the Local Government Units, Higher Education Institutions, and Non Government Organizations to conduct the advocacy programs and projects that will address the priority problems namely unemployment/livelihood programs, education and literacy, environmental, political and infrastructure.
2. For the Local Government Units (LGUs) to formulate ways and means to deliver the following programs:
  - a. Income Generating and Livelihood
  - b. Literacy and Skills Development
  - c. Solid Waste Management

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