Community Information System for Ladprao Canal Development

Sasithorn Khonthon, Sumai Binbai, Phatarapon Vorapracha, Rungruang Musiri

***Abstract*:** *Preparation of information for community development along the Ladprao canal. The objective is to survey and create a database of the Ladprao canal community. And developing the community information system at Ladprao canal. Systematically collecting data according to the dimensions of the community Consists of 6 basic basic information. General health, economic, environmental information The relation of the household to politics and government and communication. Analyze information for quality of life development in 3 issues which are economic, environmental and health. The results of the research showed that Ladprao canal community that has completed housing construction. And there are already 22 communities in 2717 households. The total population is 3164 people, 47% males and 53% females. The majority of the population are aged 40-59 years. In the economic aspect, it is found that the main cause of the economy in every household's household is low and unstable. Because most of them are professionals earn daily but very expensive. Regarding the environment, the majority of the population have good waste collection and care for the environment within the household. For health, most problems are chronic illnesses. With non-communicable diseases. Therefore, all 3 issues are relevant and clearly linked. Especially the economic aspect which directly affects the well-being of the people The circumstances of each person are different. Affecting the care for the environment and take care of one's own health of people in the community, both directly and indirectly.*

Keywords **:** *Community informatics, Quality of life*

I. INTRODUCTION

Publicizing corporate news in the information society era. It is very important. Every organization, both government and private sectors, gives importance to information. Due to the competition that will give consumers. Customers or those related to the organization receive information. From the organization easily, accurately and quickly including being the most satisfied. Which consumer satisfaction customers or those associated with this organization[1,2]. This is an important factor that helps the organization to achieve its goals faster. [3] At present, publishing and presenting "information" with computer systems quickly gained popularity. Because it is a channel that has many advantages, such as presenting multimedia information. Can publish information all over the world without restrictions between borders. Can quickly change news or information and with low cost in the long term. Therefore making every organization bring information systems to help facilitate the organization.

At present, the community along the ladprao canal. [5] Which is a large community and has a lot of people living. But ladprao canal community does not have a demographic data, occupation and basic information of people in the area of the latphrao canal community. Which found that such problems had an effect on the structure planning of the latphrao canal community. [7] Based on the above information, the researcher sees the importance of the problem. Based on the above information, the researcher sees the importance of the problem. Therefore, the idea of creating community information system for ladprao canal development. To help fix such problems and makes the management of the community along the ladprao canal more efficient.

II. MATERIALS AND METHODS

A. Study area and Data

The study area of this research was khlong latphrao is the longest digging canal in Bangkok. With a length of about 24.5 kilometers. Latprao canal runs through many areas of Bangkok, consisting of Sai Mai District, Lak Si District, Don Mueang District, Bang Khen District, Chatuchak District, Huai Khwang District, Wang Thonglang District. There are 52 communities living along the canal 7,314 households.

B. System analysis and Design

The development of community information systems is used. System Development Life Cycle Came to help in the development of community information systems.

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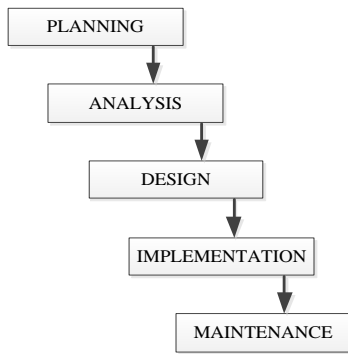 **Sumai Binbai,** Division of Computer Education, College of Teacher Education, Phranakhon Rajabhat Univercity, Bangkok, Thailand. Email: sumai@pnru.ac.th
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Fig. 1. System Development Life Cycle.

- Planning is a process of thinking about various actions to achieve goals. Is the first thing that must be done to achieve the desired result. Is a process that relies on creating and maintaining plans. It is a preparation of steps to achieve the goal and is one of the techniques that are most important to project management and time[4].

- Analysis is to distinguish the things to be considered into related parts. In order to clearly understand each section. Including searching for relationships between parts to see if the finer components are compatible. How are they related? Which will help to truly understand anything.

- Design is the bringing of results from system analysis to develop into a physical form. Beginning with the design of hardware and software In the data import, processing, result display and storage. Data modeling design report design and screen design for user interface. Which must focus on the analysis that helps solve problems.

- Implementation systemization is the final process in the system development life cycle or SDLC. Implementing the system plan we have designed in the process. Before making it into a system that actually works. Implementation It consists of two main steps, Development and Installation.

- Maintenance is the last step in the system development cycle. Which is a step to take care of solving new system problems. This step, if the problem is caused by the program Programmers will have to come to edit. Or users may need more new working methods.

C. Community Informatics

The use of information and communication technology in research studies for economic, social, and cultural development within the community. Is an information system aimed at strengthening the community. [6,8]People can manage themselves. Solve daily problems have a better quality of life. [9,10] Reduce social gap manage the environment to be livable and support sustainable development. Build a community learning center open for public service. So that everyone in the community can access the information thoroughly.

D. Web Application

Web Application is an application that was written to be a browser for various webpage usage which has been modified to display only the necessary parts. In order to reduce the processing resources Of the smartphone or tablet device, making the website page load faster In addition, users can still use the internet and Intranet at a low speed.

E. Structured Query Language

Structured Query Language (SQL) Information inquiry language is a database language that can be created and operated with a relational database. Is a language that is similar to English. SQL is developed from the concepts of relational calculus and relational algebra. SQL language. Packing of data into various columns of the table must be defined. SQL language. packing of data into various columns of the table must be defined. Data type for each column This data type shows the type of value that is in the column. All values in the given column must be of the same type..

F. Database

Database System is a system that gathers various related information together together with a clear relationship between various data. n the database, it consists of several data files that contain data. Related to each other systematically. Gives users the opportunity to use and maintain these data effectively. There is software that is like a mediator between users and various programs related to the use of a database, called DBMS (database management system). Is responsible for helping users access information easily, conveniently, and efficiently. Accessing the user's data may create a database, modify the database. Or asking questions to get information In which the user does not need to know about the details within the structure of the database.

III. RESULTS AND DISCUSSION

The results of system analysis and design by using case diagrams to design the information system for Ladprao canal Community Development are as follows:
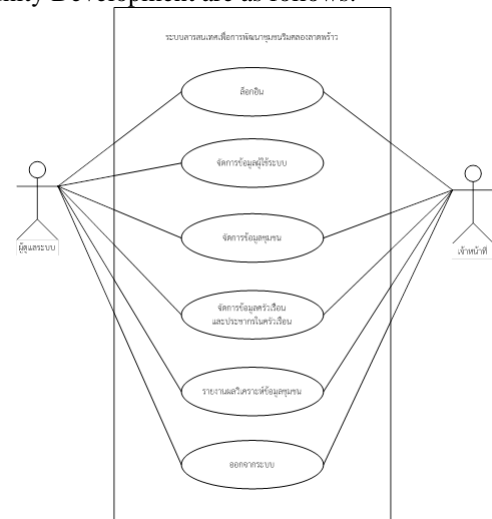
Fig. 2. Use case diagram for development information system.

This research was developed by sublime text 3 for write instructions of system by PHP for connect to server, bootstrap consists by CSS for decorate webpage, HTML5 and JavaScript for design users interface and MySQL for database management.

Fig. 3. Web page information system for ladprao canal.

Display of web page information system for the development of ladprao canal communit. Which shows the details of the number of communities, number of households, population and number of users. In the menu bar is displayed information community household information, demographic information, community, information report and summary of community data key in Figure 3.
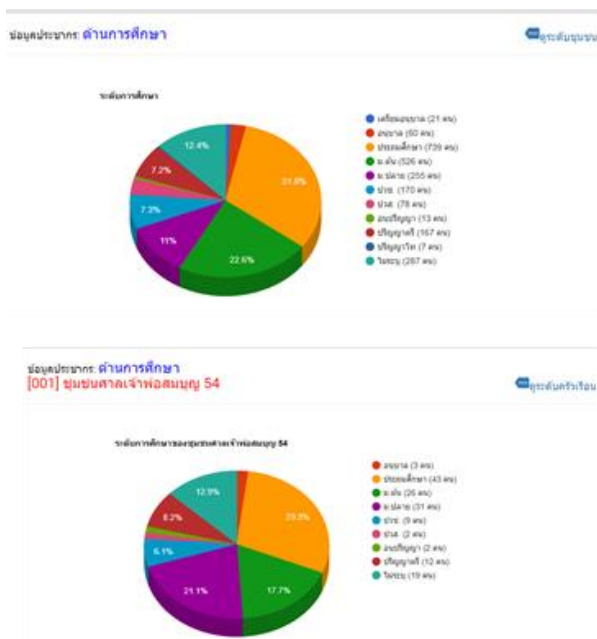

Fig. 4. Graph showing educational information.

Graph showing the level of education in ladprao canal community. All communities and can display graphs separated by communities. Which the graph shows the data as a percentage. The level of education is divided as follows Pre-kindergarten, Kindergarten, Primary School, Secondary School, Junior High School, Senior High School, Vocational Certificate, High Vocational Certificate, Bachelor Degrees, Master Degrees and unknown in Figure 4.
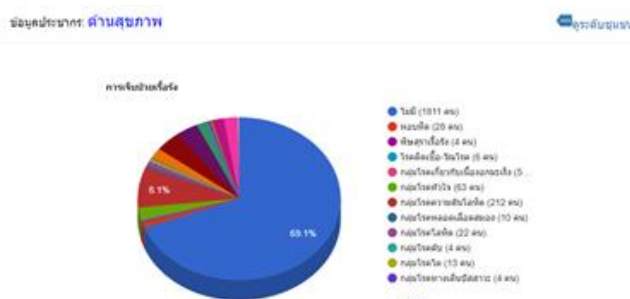

Fig. 5. Graph showing health information.

Graph showing population health data in ladprao canal community. All communities and can display graphs separated by communities. Which the graph shows the data as a percentage. Showing health information as follows good health, asthma, alcoholism, tuberculosis, cancer tumor group, heart disease group, blood pressure group, stroke group, blood disease group, liver disease group, kidney disease group and urinary tract diseases group in Figure 5.
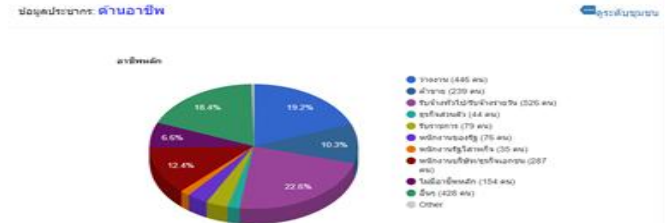

Fig. 6. Graph showing career information

Graph showing career information Population in ladprao canal community. All communities and can display graphs separated by communities. Which the graph shows the data as a percentage. Showing career information as follows unemployed, trade, general contractor, daily contractor, private business, work in the government service, state employees, state enterprise employees, private business company employees, no main occupation and others in Figure 6.
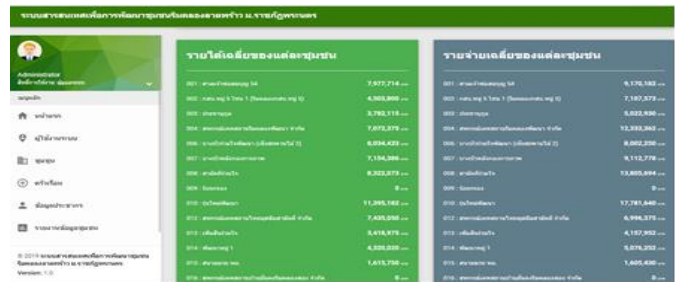

Fig. 7. Graph information income and expenditure average of each community.

Table showing summary of average income of each ladprao canal community and average expenditure of each ladprao canal community. Showing the average income and expenditure in each month as shown in Figure 7.
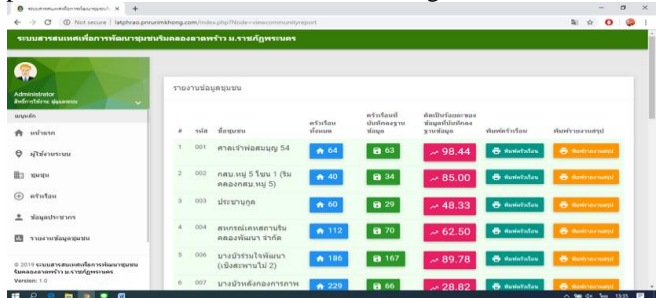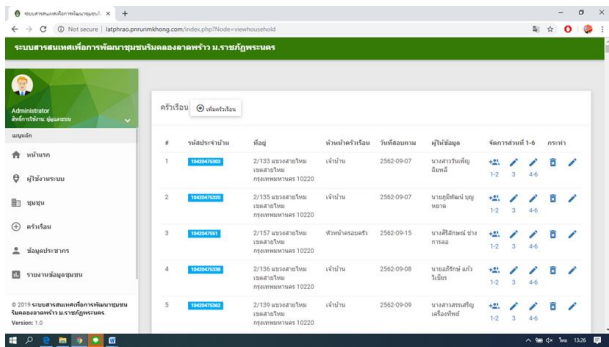

Fig .8. Community information report and show details of community information report.

Fig. 9. Household information menu Is a detailed display of household information.

From the above details, it shows various basic information of the ladprao canal community information system. From community information can be used for analysis and develop plans for various communities in the future.

IV. CONCLUSTIONS

The development of an efficient ladprao canal community database system. Information related to the development of the quality of life of people along the laprao Canal that covers the elements. Various levels of individuals, households, and communities. The report and analyze the desired issues in detail Able to generate reports for analysis of data in numbers, text and various charts. According to the needs of users effectively Able to apply information for improving the quality of life of the population in the community. After the housing management is completed and from the analysis and synthesis of various elements. Relating to the development of quality of life and from the data analysis by computer system from the developed database. Able to specify issues for planning the strategy for the development of the quality of life of the community along the latprao canal with 3 main points which are economic issues, environmental issues and health issues

a. Economic issues are considered as a major problem for all communities along the latprao canal. Economic conditions are an indicator of people's well-being that directly affects the quality of life. From the data analysis of the latprao canal community. Found that the main causes of the economic downturn in every household's households are income - expenditure, occupation, debt burden and lack of arable land.

b. The environment of the latprao canal riverside community, after the development of new residences for the people in the area, makes the physical environment more livable. From the data analysis in the database. Found that 95 percent of the latprao canal population has good waste collection and care environment, waste separation, waste management and sewage management in their own household.

c. Health issues data analysis found that most health problems are chronic illnesses with non-communicable diseases, such as blood pressure. Accounted for 7 percent, followed by heart disease 1.8 percent and blood disease 1.3 percent, respectively. The majority of patients are aged 60 years and over, which is the majority of the population of latprao canal   community. Causing these people to not be

able to make a living helping families.

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