

Indonesian Manpower of Lombok Information System and Entrepreneurship Empowerment Model

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Abstract- Migration of workers abroad impacts the economic, social, cultural, psychological, political and so on, both to individual workers, family workers and the origin itself. The impact is most felt the economic impact of increased family welfare workers, while other impacts, especially on the development of socio-cultural aspects in rural areas of origin has not been known as the study of socio-cultural aspects are still relatively limited. On the island of Lombok, migration flows continued to rise despite a lot of information about the problems experienced by workers. The amount of public interest in migrating to Malaysia especially with the economic mainstream, but things related to the socio-cultural aspects also seem to recall affects rural cultural patterns Lombok is still heavily influenced by local values. The specificity of the social aspects of cultural and economic dynamics in rural communities. The research objective was to map and determine the pattern and model of empowering workers remittance post Entrepreneurship migrant workers. Research has been done in the first year using the methodology System Development Life Cycle (SDLC). This method is for building information systems with several stages of planning, data analysis, design information systems, testing and implementation program. While doing research sites in the survey by visiting the Manpower and Transmigration offices in 5 (five) districts / cities on West Nusa Tenggara province. The result is a system of mapping information workers with workers who display all the data in the 5 (five) districts / cities.

Keywords- *Information System, Entrepreneurship*

I. INTRODUCTION

Indonesian labor migration phenomenon to various destination countries have emerged since the 1970s. However, the migration phenomenon growing stronger since the mid-1980s. Between the months of January to June 2007, based on data of BNP2TKI, total Indonesian migrant workers working abroad was 354 548, and the number of migrant workers is 280.1831 (almost 80% of the total). Limited access for the poor Indonesian economy to be the main thing that encourages them to venture in another country. Central Bureau of Statistics (BPS) estimates that in 2006, 17.75% of the 222.192.000 population of Indonesia is poor people. In that

year, the number of unemployed as of February 2006 was 11,104,693 people (10:45%), and 5,296,462 are women [1].

International labor migration from Indonesia to Malaysia has been happening for a long time (Hugo1993, Romdiati, 1996) with an increasing number in the last two decades. Data from the Department of Labor shows, during the Five-Years Development (Pelita) VI (1984-1989), the number of Indonesian workers (TKI) in Malaysia recorded a 156.312 people. Becoming 428.670 at Pelita VI.

Malaysia today is one of the destination country or export of Indonesian labor migrants in Asia. In addition to Malaysia, the Indonesian government also sent workers to Singapore, Japan, Taiwan, Korea, and Saudi Arabia. In Malaysia, there are currently about 1.2 million workers who work in various sectors, such as farm, construction, factory, restaurant, and housemaids. It is estimated there are about 800,000 illegal migrants whose numbers daily increasing [1].

Recognition of the contribution to the economy of the workers could not change the fate of the majority of migrant workers; especially female workers (TKW) were not educated and worked as a housekeeper who generally had not moved from grim picture portrait of modern slavery. Respect for workers as "Foreign Exchange Heroes" is just nonsense for not manifested in the form of services and protection. Bureaucracy faced by the migrant workers still convoluted.

It is time for the government to improve the quality of life by improving the ability of the workers themselves as workers-who will be experiencing life in the neighboring country. In addition, the government should firmly in protection issues, especially issues passports tied to their employers, as well as simplification of procedures and does not charge fully departure fee departure process to the workers. Thus, workers can have a good quality of life. In fact, there is little money that the workers who produced the sweat in the country. Amount of remittances migrant workers from Lombok Island, according to calculations of YPK, during the last year was Rp 317.7 billion. The figure was compiled from the data remittances migrant workers through Bank BNI 1946 and Bank Mandiri Branch of Mataram. "That does not include money sent through friends or through other means of delivery [2].

Lombok people who now work as migrant workers abroad recorded for 18,824 people. Most work in Malaysia, the number reached 15 033 people. In Saudi Arabia recorded 3,734 people. 175 people in Brunei Darussalam. Most of Lombok migrant workers are from Central Lombok district, totaling 6,374 people, 5,362 people of East Lombok, West Lombok 3,465 people. The rest comes from Bima district, just 15 people. Those workers are legal. Expected, the number of illegal migrants doubled. Most work in the neighboring country, Malaysia [3].

Furthermore, most of the remittances migrants sent to Lombok apparently used to pay debts which they use to finance their departure as migrant workers. However, in general the majority of the workers (84%) felt a migrant worker could create the economic conditions of their families for the better by being able to set aside funds for working capital, buy land, build houses, and others.

Ironically, despite their educational background was generally low, most of the respondents (59.58%) stated it does not require training for those returning from abroad as migrant workers without giving a good reason. On the other hand, of the respondents who claimed to be trained, most (71%) stated that they need is training in the field of entrepreneurship [3]. For that it is necessary synergy between post-migrant workers to be able to manage the rest of the funds generated for a migrant worker to entrepreneurship.

II. LIBRARY STUDIES

A. Geographic Information Systems Mapping

Map is a picture of the earth's surface that is minimized, poured in a sheet of paper or other media in the form of two-dimensional. There are various definitions of the map, but in general the mapping is derived from the word "map" which is a representation or picture elements or abstracts appearance selected from the earth's surface or in connection with the surface of the earth or the celestial bodies and the general depicted on a flat plane and reduced or scaled (PA Burrough, 1986). Put simply, the notion of a map is a diminution of the earth's surface or space objects depicted on a flat surface, using size, symbols and systems generalization (simplification). Mapping itself is a process, a way, the act of making maps [4].

The map describes the phenomenon in the form of a reduced geographically and has widespread uses if designed with specific objectives.

Usefulness of the map by [5], among others:

1. Recording
2. Displaying
3. Analyzing
4. Spatial relationship

TKI map analysis can help manufacturing workers conditions and displays the location of the green line so that the map will attract readers, and facilitate the reading goal. As

a tool, the map has an important role to humans, especially in conducting field observations, research reports, or in studying phenomena related trending TKI life.

According to its content, thematic map is a map that contains certain specific themes, which is useful for research, science, regional planning, tourism, and so on (PA Burrough, 1986). While based on the scale map TKI is a large-scale map, the map scale 1:25.000.

B. GIS component

Such systems to be able to operate need the hardware and software and also humans who operate it (brain ware). In detail, the GIS can operate requires the following components [4, 5, 6 and 7]:

1. People (who run the system) includes operate, develop and benefit from the system. Categories of people who are part of the SIG are diverse, for example, operators, analysts, programmers, database administrators and even stakeholders.
2. Application (the procedures used to process the data) is a collection of procedures used to process data into information. For example, the sum, classification, rotation, geometry correction, query, overlay, buffer, join table and so on.
3. Data (information required and processed in the application). The data can be used in GIS graphic data and attribute data. Graphic data / spatial data is a representation of the earth's surface phenomena that have reference (coordinat) prevalent form of maps, aerial photographs, satellite imagery, and so on or the result of the interpretation of these data. While attribute data such as population census data, survey records, other statistical data. Collection of data in large amounts can be compiled into a database. So well known in the GIS database, commonly known as a spatial database (spatial database).
4. GIS software is a computer program created specifically and have the management capacity, storage, processing, analysis and delivery of spatial data. The brand of this software is quite diverse, for example Arc Info, Arc View, Arc GIS, Map Info, TNT Mips (Mac Os, Windows, Unix, Linux is available), GRASS, GIS Knoppix and even more.
5. Hardware that can support the operation of the computer software used. In this hardware also includes a scanner, digitizer, GPS, printer and plotter.

C. Portrait of TKI of Lombok

Overcast seems will still continue to infest Indonesian migrant workers. Dozens of Indonesian workers currently under sentence of death or imprisonment in Malaysia and many cases of migrant workers in a number of countries. In the near future, about 40,000 workers who worked in Saudi Arabia and about 800,000 workers who work in Malaysia are also faced with the threat of deportation for not having official documents or beyond the period of residence permit or overstayed.

Forced repatriation is the logical consequence of the illegal status of migrant workers. However, the fact that the large number of illegal workers (and the numbers never decreased) without adequate protection of legal documents abroad during this show we tend to oversimplify the problem and not serious to make improvements. Recognition of the contribution to the economy of the workers could not change the fate of the majority of workers-especially female workers (TKW) were not educated and worked as domestic servants-who generally had not moved from grim picture portrait of modern slavery. Respect for workers as "foreign exchange heroes" is nonsense for not manifested in the form of services and protection. Bureaucracy faced by migrant workers still convoluted. Sources: <http://www.kompas.com/>

III. RESEARCH METHODS

A. Research Type

The type of this research is survey research, by taking a sample of the population and the use of questionnaires as a data collection tool that fits [8]. This survey study conducted with the purpose of explanation (explanatory or confirmatory) that provides an explanation of the relationship between variables through research and testing hypotheses that have been formulated previously [8].

B. Research Location

Location of the study is that there are districts and cities on the island of Lombok which includes the city of Mataram, West Lombok regency, North Lombok, Central Lombok and East Lombok so the number of districts. / City of 5 pieces.

C. Source of data

To be able to analyze and interpret the data well, then the required data is valid and reliable, so the results contain some truth. In this study the data obtained through two sources, namely from the respondents and documents. While the source of the data in this case is closely related to the type of data collected, includes two types of data are [9]:

1. Primary data, i.e. data obtained directly from respondents through interviews and questionnaires (questionnaires).
2. Secondary data that is data used to supplement the primary data such as records and documents relating to the purpose and research problems.

D. Data Collection Techniques

Questionnaire is a data collection technique to obtain quantitative data from the questions posed to the respondent in this case individuals TKI [10].

Interviews aimed at obtaining information related to the data needed.

Observation, aiming to obtain data related to the problem through direct observation.

E. TKI Mapping Plan

1) Lombok TKI mapping design

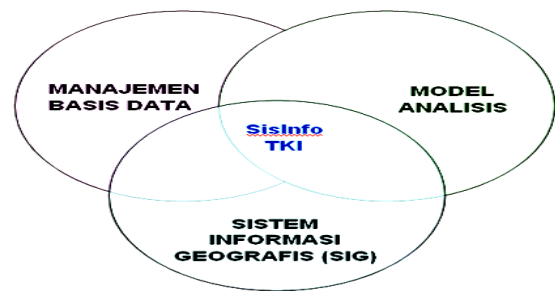


Figure 1

2) Manajemen Basis Data Pemetaan Rotan

1. Preparing Data
 - Data inventory
 - Data Standardization
 - Updating
 - Assumptions
2. Designing Database Model
 - Context Diagram
 - Data Flow Diagram
 - Entity Relational Database (ERD)
 - Data Normalization
3. Logical Design
4. Physical Desing

F. Remittance Patern

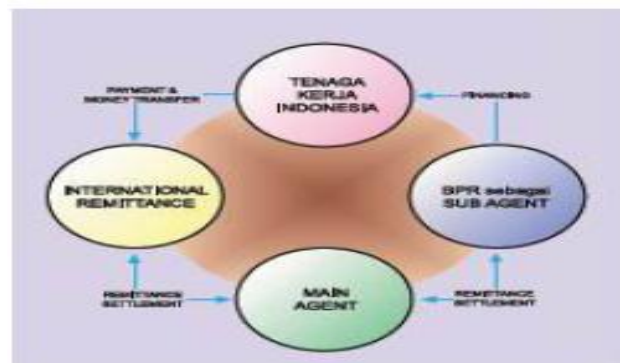


Figure 2

IV. RESULTS

A. System Design

System design is a process of translating information user's needs into system design alternatives presented to the user for consideration. While definition of system analysis and design according to McLeod is a process of identifying processes and data required by a new system. If the system designed is computer-based, then the design can include specifications of the equipment used [11].

Information system development can be done in several ways. One of them is the method of SDLC (system

development life cycle). Other methods are alternative methods of SDLC method, so called alternative method [12].

According to [13], there are three main elements in software engineering, namely:

1. Method, which defines the number of tasks that include project planning and systems requirements analysis and software.
2. Tool, in the form of software or hardware. Tool also provides support for fully automatic or semi-automatic for each method.
3. The procedure, which is used to combine methods and tools in a software development. Procedures include working order, in which the method will be applied, record the required data, as well as to maintain quality control and record the changes in the software.

Usage repeat application system have been practiced widely by software companies for their system implementation at various machine and accomodating it to various environment. Usage of function, also exploited through standard library of functions that able to wear as graph library and of mathematics. Software engineering of reuse-based is an approach to development that tries to maximize the reuse of existing software. Unit of software that can be reused is unbelievably different sized [14].

B. Analysis of Existing Systems

Based on the results of tests on the system, the characteristics of existing systems and components can be known. The existing system is only made for the website. From the test results, it is found that there are existing conditions, including:

1) System characteristics

1. The programming language used is PHP scripting
2. The database used is MySQL
3. Its all automatically activated under standard conditions
4. Multi language and currency of payment
5. One store to the website

2) System Components

Components of the system consists of several features, namely:

1. Installation features

Browser-based installation, including to upgrade. Availability of systems of process configuration, file and user database administrator.

2. Design features or layout

The use of templates, making it easy to change the look supports the dynamic image.

3. Administrative features

Administrative functions that support the unlimited number of products and categories.

- The addition of categories, products, manufacturers, customers, and reviews
- Support the physical product (through service delivery courier or post office) and virtual products (via downlo
- d)
- The facility to contact the customer via email or newsletters
- The existence of the database backup and restore facilities
- Can print invoices and packaging lists
- Can set the appearance of the product
- Support for static and dynamic display banners
- All orders stored in the database
- Buyers can view and purchase chronological order status
- Shoppers can sign up as a member of the customer
- The existence of address box to save the shipping address and payment address
- The existence of temporary chart shopping for houses and sopping chart for buyers who already signed up
- The search facility is fast and easy to use
- Check out procedures that are easy to use
- Transactions using SSL
- The available global best seller list or per category

3) Features of the product functionality

- HTML base product description
- Appearance of specific items are automatically
- Can determine whether the product is out of stock can be remain displayed
- Buyers can subscribe information about the product via email or newsletter

4) Feature of payment functionality

- Can be used to accommodate offline payments, such as checks, cash and credit cards.
- Can accommodate variety of online payment, such as PayPal, 2Checkout, Authorize.net and iPayment.
- Can disable payment services based on a physical zone.

C. Preparation of Report Summary Document of Data Processing and Planning of Lombok Workers

1) Preparing Database of Lombok Workers

In the mapping, there are two types of data developed, namely spatial data and non-spatial data. Spatial data is used to identify the location where the workers are and non-spatial data to determine workers data attributes required to manufacture the system.

2) Standardization of data format and structure

Standards can be defined as something that is used to test or measure weight, length, quality or degree of perfection required (Oxford English Dictionary). In conjunction with spatial databases, the standard is one of the parameters that can be used to assess the quality of the spatial data. If the spatial data quality is good, it will be easier for users to understand the information contained in the spatial data.

At the stage of development of spatial database, it is conducted the standardization of data and compilation of data using database compilation rules. This standardization includes uniform format, structure, setting the data file names and code elements by providing a simple and systematic rules. Step aims to uniform data standardization, facilitate the identification of data, so it is much easier to do search and retrieval.

It is important to know that the GIS spatial data, is known in a variety of formats, such as coverage format (Arc / Info), MIF (Map Info), shape file (ArcView) and DWG (AutoCAD). Data formats generally follow standard GIS software to manage it. For the purposes of the preparation of the spatial database used shape file format (ArcView). The selection is done for adjusting format with built based database program ArcView GIS 3.2. With a data format that is consistent with the database program developed, is expected to be better performance.

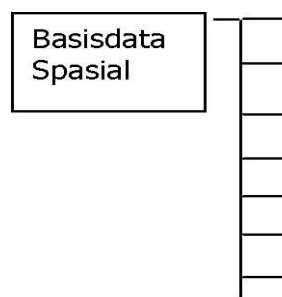
In addition to uniform spatial data format used for the construction of spatial databases, also conducted standardized data structure and composition of spatial attribute data storage directory. Attribute is the fact that there are geographical phenomena surface of the earth. Containing attribute data is based on location information and stated in particular coordinate system.

Standardization of spatial attribute data structure is done to homogenize and focus on the information presented. So after the standardization process of spatial attribute data structure is done, make the fields required spatial attributes of data are retained as a means of information. Broadly speaking, the spatial arrangement of data attributes in the Spatial Data Base West Sumbawa regency is divided into three, namely points, lines and polygons. The spatial arrangement of data attributes are as follows:

TABLE I. SPATIAL ARRANGEMENT OF DATA ATTRIBUTES

Dots			
Field	Field Name	Type	Width
1	Share	Share_point	8
2	Lenght	Numeric	13
3	Perimeter	Numeric	13
4	Field_id	Numeric	8
5	ElementCode	Numeric	8
6	Remarks	Character	40
Lines			
Field	Field Name	Type	Width
1	Share	Share_line	8
2	Lenght	Numeric	13
3	Perimeter	Numeric	13
4	Field_id	Numeric	8
5	ElementCode	Numeric	8
6	Remarks	Character	40
Polygon			
Field	Field Name	Type	Width
1	Share	Share_poly	8
2	Area	Numeric	13
3	Perimeter	Numeric	13
4	Field_id	Numeric	8
5	ElementCode	Numeric	8
6	Remarks	Character	40

Spatial database directory setting is done by sorting out according to the data type. The data format in the form of digital map coverage of Arc/Info and ArcView shape file format separated and collected in the map folder. While the data in the form of photos or images, digital map legend, program database, data of oracle database tabular format, each separated in the images, legends, program and oracle folders. Following is the database directory structure of Lombok workers.

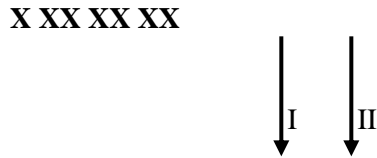


- Mapcontaining digital maps
- Legend containing digital maps legend
- Layout containing ready-to-print maps
- Picture containing field photos
- Program containing database program
- Report containing report
- Oracle containing oracle tabular data

3) *File naming and coding of the TKI elements*

For file naming procedure performed with a systematic code of 7 digits. Giving a name based on the division of administrative areas. Each piece reflects certain information

which has been encoded. In a simple file naming rules in West Sumbawa regency spatial databases are as follows:



Where:

- I = sub-district code
- II = Lombok TKI code

File naming rules of spatial data in Lombok TKI database refers to the nomenclature of the BPN Indonesian Land Use Databank (ILUD). Giving the name has also been conducted with some modifications for particular themes, such as the themes of critical land, population and density. It is because these themes are not included in the nomenclature of the BPN ILUD. For Therefore, the name is made by sticking to the rules of nomenclature with 7 digit systematic code. Lombok Island nomenclature is made.

Spatial data file naming system is not only based on zoning administration alone, but there is a naming system based on the sheets in accordance with the scale of the data. So after the code content / themes map followed by the code sheet and a code that indicating the scale of the map.

The following are nomenclature of Lombok TKI database file compiler that is designed following rules of BPN ILUD:

TABLE II: NAMES FILE OF SPATIAL DATABASE COMPILER

No	Theme	File Name
1	Subdistrict Administration (lines)	Subdistrict
2	Lombok TKI	TKI

Central Bureau of Statistics (BPS) issued a zoning code (Regency / Municipality Codes) based on that used in the administration of the purposes of an administrative nature. This code is used represent the provinces / districts in the preparation of statistical data for each province or district in Indonesia. These codes can be used also in the file naming based on administrative areas such as file naming rules in Lombok TKI's database.

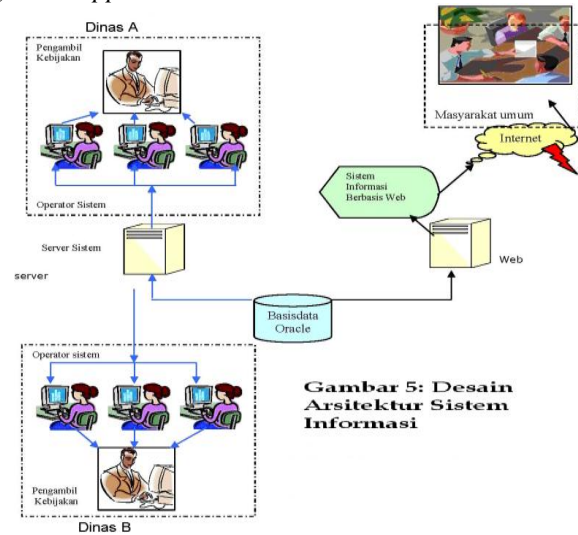
D. Development of Lombok TKI Geographic Information Systems

1) Connectivity development

Development of system connectivity is one of the important parts and should not be forgotten. This development aims to increase the range of use of the system. By increasing the range of use of the system, the system function will be increasingly felt and can be used by many people with different interests at once.

For example relating to land use planning, systems owned by Bappeda and Land Agency, but its use is not limited to just the environment of Bappeda and Land Agency, or the system is not only internally, but can also be accessed by other departments that require land use planning information, and even the public can do as well. Certainly in terms of information to individual usage rules that are designed further. The rules relating to the licensing of data as well as data security aspects.

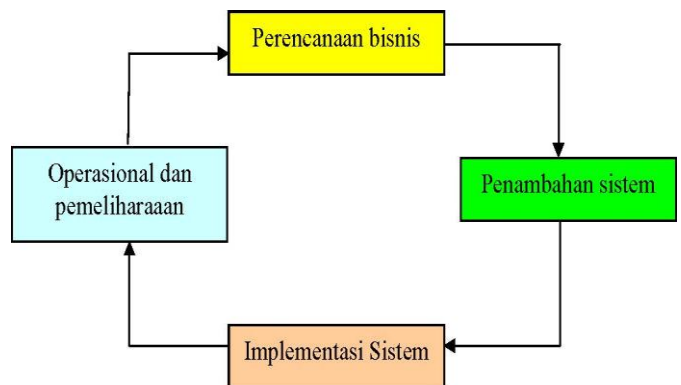
2) tier Application



Gambar 5: Desain Arsitektur Sistem Informasi

Figure 3

With the system architecture as illustrated in the picture above, there is no systems dualism will allow that have the same theme in each work unit / department. In addition it is expected that the same kind of standardization for each spatial data flow within the system. The same standards are understood by each work unit / agencies. This will lead to uniformity of information consumed by the general public, including developers with an interest in land use information. When all three parts of system development can be accomplished, then the life cycle or the cycle of GIS project will flow perfectly by itself. The flows of data from various departments can be communicated to the data that already exists in the system, and the system itself will continue to evolve.



Picture 4: Cycle of GIS Project [15].

The flow of data into the system will complement the database so that it will provide support in the planning. Flows of these data indirectly support the operations and maintenance of the system. Create a complete database support policy makers or planners freely determine the same target subsequent land development, prepare the following precaution in case of adverse impacts to land use changes to be applied. System deficiencies in support of the planning can be re-evaluated, and then performed additional step system applications. The addition of new applications within the system is then implemented into the system through the addition of new menu or function so that the system can evolve.

3) Database development of Lombok TKI

The improved information system (IS) is the next system which can be used for decision-making purposes, then it can be developed for information systems to meet organizational and management solutions, such as:

- o Environmental Information System-EIS
- o Automated Mapping and Facilities Management (AM / FM)
- o Resource Information System
- o Planning Information System
- o Subdistrict Data Handling System
- o Lombok TKI Information System

This system has ability to enter, store, recall, process, analyze and produce referenced spatial and attribute datas to support decision making in planning and management of land use, natural resources, and environment.

As we all know that the IS is a tool that will not have any activity if it is not followed by activities, so indirectly it can be said that the IS cannot be developed without support of all elements in the government who use this system as tools.

This information system development framework can be categorized into four areas, namely:

1. Policy
2. HR (Human Resources)
3. Equipment and facilities
4. Management Information System

➤ Development Policy

Consequence of the development policy on information directly is a change in government structure issues concerning the authority and responsibility of all levels of management and implementation of activities, as inevitably will affect the application of IS patterns and interactions of all staff working in the government, which in turn also brings changes against the government and personal performance.

➤ Human Resource Development (HRD)

Human resource development in the field of Information Systems for the development of information technology actually has a lot of options that can be tailored to the needs and resources available. There is one thing to recognize is that the field of Human Resource in the Information System consists of several specialized fields that have a division of

disciplines and fields of work which are very different. Indirectly it led to the possibility of a person mastering the Information Systems in the field of Programming, Network, Hardware, Website Development and Information Management as a whole.

E. Composing Software of Lombok TKI Mapping

1) Composing Administrator

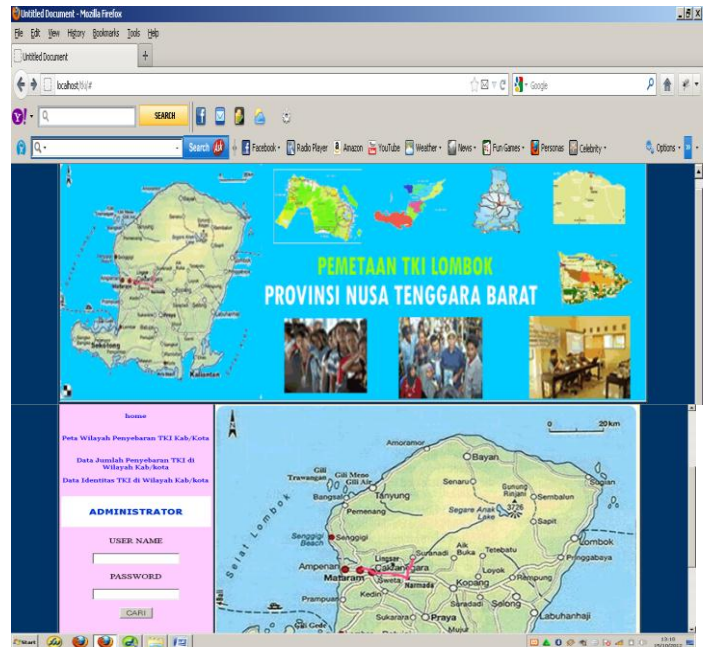


Figure 5. Map of Lombok Island

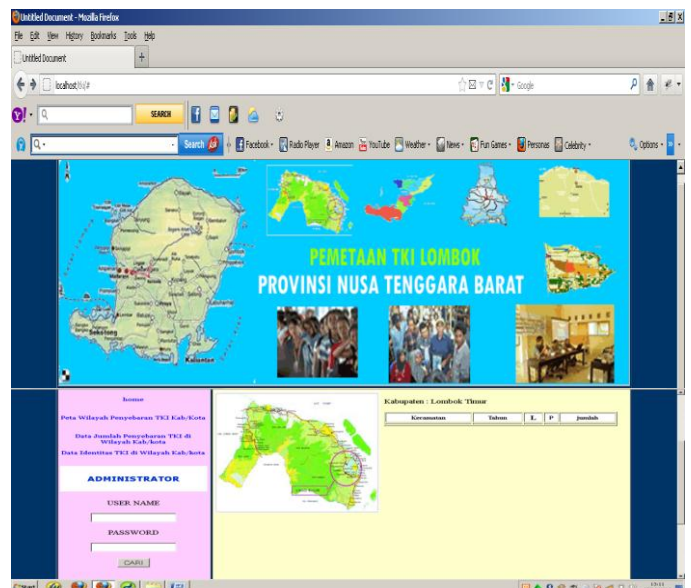


Figure 6. Map of District/City Territory

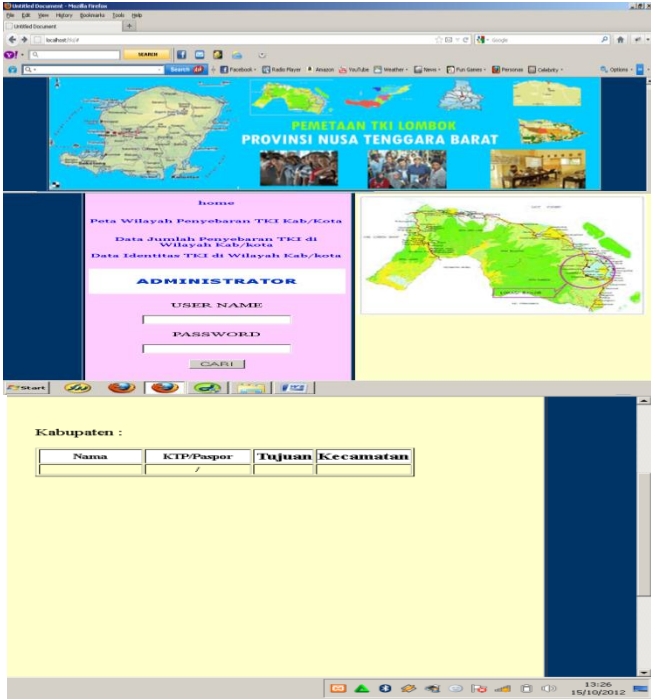


Figure 7. Map of Population Identity

2) Composing Database

a) Database : TKI

Server: localhost Database: tki

Table	Action	Records ¹	Type	Collation	Size	Overhead
admin		0	MyISAM	latin1_swedish_ci	1.0 KiB	-
identitastki		0	MyISAM	latin1_swedish_ci	1.0 KiB	-
jumlahtki		0	MyISAM	latin1_swedish_ci	1.0 KiB	-
kabupaten		5	MyISAM	latin1_swedish_ci	2.2 KiB	-
4 table(s) Sum		5	MyISAM	latin1_swedish_ci	5.2 KiB	0 B

3) Admin : recording user administrator data

a) District : recording data of districts/cities of NTB province

Server: localhost Database: tki Table: kabupaten

Field	Type	Collation	Attributes	Null	Default	Extra	Action
noid	int(2)			No	None	auto_increment	
nama	varchar(50)	latin1_swedish_ci		No	None		
kode	varchar(2)	latin1_swedish_ci		No	None		
photo	varchar(100)	latin1_swedish_ci		No	None		

4) TKI Identity : recording data TKI going abroad.

Server: localhost Database: tki Table: identitastki

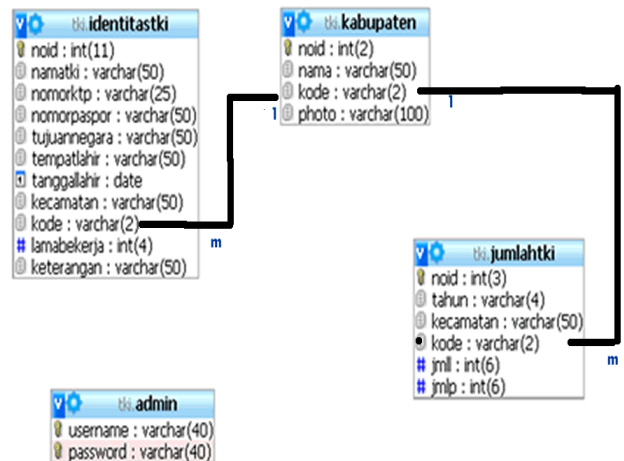
Field	Type	Collation	Attributes	Null	Default	Extra	Action
noid	int(11)			No	None	auto_increment	
namatki	varchar(50)	latin1_swedish_ci		No	None		
nomorktp	varchar(25)	latin1_swedish_ci		No	None		
nomorpaspor	varchar(50)	latin1_swedish_ci		No	None		
tujuannegara	varchar(50)	latin1_swedish_ci		No	None		
tempatlahir	varchar(50)	latin1_swedish_ci		No	None		
tanggalahir	date			No	None		
kecamatan	varchar(50)	latin1_swedish_ci		No	None		
kode	varchar(2)	latin1_swedish_ci		No	None		
lamabekerja	int(4)			No	None		
keterangan	varchar(50)	latin1_swedish_ci		No	None		

5) TKI Number: recording the number of TKI data per subdistrict of going abroad

Server: localhost Database: tki Table: jumlahtki

Field	Type	Collation	Attributes	Null	Default	Extra	Action
noid	int(3)			No	None	auto_increment	
tahun	varchar(4)	latin1_swedish_ci		No	None		
kecamatan	varchar(50)	latin1_swedish_ci		No	None		
kode	varchar(2)	latin1_swedish_ci		No	None		
jml	int(6)			No	None		
jmlp	int(6)			No	None		

6) Database Relational



V. CONCLUSION

1. Knowing Lombok TKI cluster GIS-base based on district located on the island of Lombok which covers four districts and one city.
2. Database of Lombok TKI in Lombok Island has begun to build up with a similar format in each unit.
3. Work units that have different data requirements which largely still inadequate, need to be equipped to suit their individual needs.
4. Database development with Geographic Information System needs to be thorough and integrated.
5. Knowing the real condition of the Lombok workers (TKI) in the Lombok Island, and the condition of its development patterns ranging from upstream to downstream.

VI. SUGGESTION

1. Software. Necessary uniformity GIS software for all agencies across Government Regency / City in the Lombok Island.
2. Hardware. Need to increase the computer specs in each unit of work that utilizes GIS technology.
3. Brainware / GIS operators, the need for thorough training related to the use of GIS, and the establishment of a permanent officer (GIS division) is obliged to handle the Lombok TKI data.
4. Data need to increase the collection and quality of data, either in the form of data / maps and data base / thematic maps, including the procurement of the latest satellite imagery.
5. Compiled a formula related to the determination of the various areas of Lombok TKI designation in accordance with the conditions, the vision and mission of district / city governments in Lombok Island (e.g. Lombok workers criteria, etc.).
6. Lombok TKI consciously formed their own cooperatives to help the availability of their product needs. The aim

other than to facilitate the production process is also intended to reduce the purchase price of the goods required.

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