

## ANALYSIS ON HUMAN RESOURCE DEVELOPMENT IN PATHEINGYI TOWNSHIP

### Abstract

This research paper is Geographical Analysis on Human Resource in Patheingyi Township. Development is a multi-dimensional phenomenon such as level of economic growth, level of education, level of health services, level of social development, and so on. In this study levels of Human Resource Development are examined by using (20) development indicators of each village tract in Patheingyi Township by means of *Composite Index (C.I)*. According to the result, Patheingyi town with 0.359 of *C.I.* and Ohnchaw village tract with 0.404 of *C.I.* are found to be the highest and the second highest among the village tracts and Kyaukme, Dahattaw and Mingan village tracts with respective composite values of 0.648, 0.666, and 0.677 are to be in the very high developed level. The result of this research describes the ranks and development levels in all aspects of rural areas. Therefore, it can be expected that the phenomena described in the result will certainly help the authorized persons, the planners and persons concerned in upgrading the status of education, health, labour force and transportation conditions of Patheingyi Township.

Key words : multi-dimensional phenomenon, composite index.

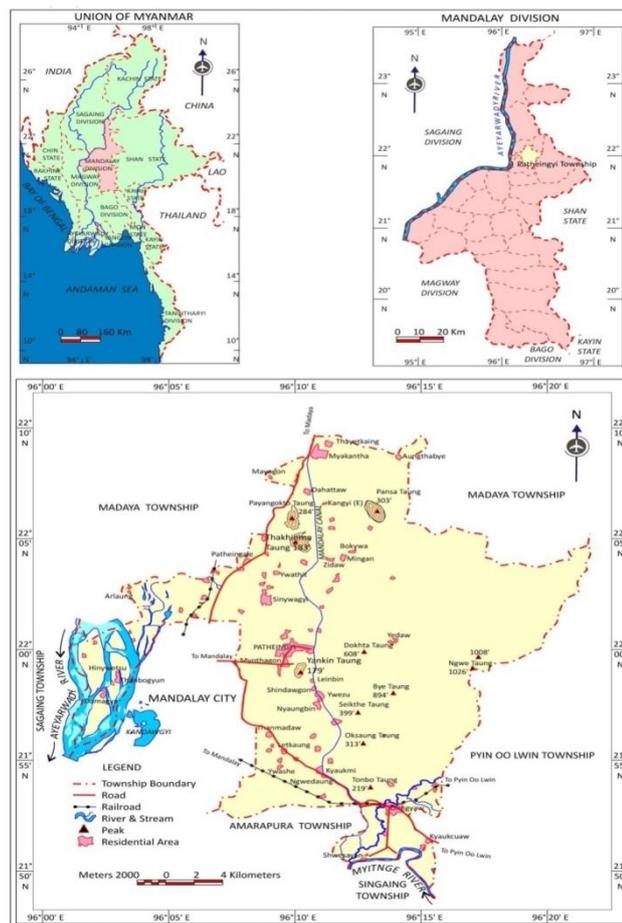
### INTRODUCTION

The Human Development Index (HDI) measures the average achievement of a nation or a region in human capabilities. In order to attain better capabilities, human himself must have ability and must be trained or educated with the supporting facilities. Regarding it, there are three basic components of the HDI: longevity, educational attainment, and standard of living life. Longevity is measured by life expectancy. In order to live long, distribution of health care personals and centres such as health staff, hospital, dispensaries, rural health centers and sub-rural health centres, easy accessibility plays an important role in health sector. Educational attainment is measured by a combination of adult literacy and combined primary, secondary, and tertiary ratios. In this study, it is described with enrolment rate, literate population, graduated population, student population of primary, middle, and high school levels, numbers of the schools and the universities. Standard of living is measured by purchasing power based on real Gross Domestic Product (GDP) per capita adjusted for the cost of living. In this study, regarding purchasing power, per capita income for the entire township is used because the available data for each village tract are not obtained. Instead, numbers of possessed television, television set with satellite antenna, radios, cultivated acres, employment rate and library found in town and each of the village tracts are measured for the standard of living.

Generally there are a total of more than 50 human resource development indicators according to the Ministry of Labour (2005). Being a township, Patheingyi has no available data on all of the Human Resource Development (HRD) indicators. Therefore, temporal HRD is possible to be examined for the entire township only but spatial HRD is possible for each of village tracts.

## Study Area

The study area is Patheingyi Township which is located about five miles northeast of Mandalay City. It lies between North latitudes  $21^{\circ} 50'$  and  $22^{\circ} 09'$  and East longitude  $96^{\circ} 01'$  and  $96^{\circ} 22'$ . It is surrounded by Madaya Township on the north, by PyinOoLwin Township on the east, by Sintgaing and Amarapura Townships on the south, by Mandalay City on the southwest, and by Sagaing and Madaya Townships on the west. The study area has an area of 232.09 sq-miles or 148,359 acre. It is composed of one town and 58 village tracts. The study area has alluvial plain in the western and southern part and mountainous region in the eastern part of the Township. Climatically, it falls under tropical steppe climate ( BSh ) according to the Koppen's classification.



## Objectives

The main Objectives of the study area;

- To demonstrate how spatial distribution of Human Resources is related to social factor and
- To determine the level of Human Resources of the study area

## Methodology

The level of Human Resource development is identified and delineated for village tracts with the help of certain indices. It is measured by using the formula of composite index of development by using the development *Ratio Index*. Ratio index for the development can be calculated by two ways or formula one is that of Bhatia & Rai (2004), and another is that of the HRD department. Although the formulae are different, the two provide the same result. The following variables are considered for determining the level of Human Resource development.

1. Percentage of employment
2. Percentage of graduate population
3. Percentage of literate population
4. Percentage of enrolment
5. Percentage of high school students
6. Percentage of middle school students
7. Percentage of primary school students
8. Percentage of university & college students
9. Percentage of satellite antenna and television set,
10. Percentage of television
11. Percentage of radio
12. Percentage of library
13. Percentage of cultivated area per head
14. Percentage of telephone
15. Percentage of state high school
16. Percentage of state middle school
17. Percentage of state primary school
18. Percentage of hospital
19. Percentage of rural health centre
20. Percentage of sub-rural health centre

Therefore, that of Bhatia and Rai is used here and *Composite Index* of each village tract and town is calculated by summing and averaging all ratio indices of all development indicators. The formula of Bhatia & Rai is as follows:

$$Y_i = \frac{X(\max) - X_i}{X(\max) - X(\min)}$$

where  $Y_i$  is the Ratio Index of Development,  $X_i$  is individual variable of each development indicator, whereas  $X(\max)$  and  $X(\min)$  are maximum and minimum variables of each development indicator.

### FINDING AND DISCUSSION

The levels of Human Resource development are calculated for all village tracts on the above formula. The spatial distributions of Human Resource development in Patheingyi Township are described as the four categories by using the composite development indices in the table (1) and figure (2).

Table (1) Composite Index of Development in Patheingyi Township

No	Village tracts	Composite Index	Levels of Development
1	Gyaintgyi	0.949	low
2	Kyunsin	0.961	low
3	Hpohlagon	0.912	low
4	Hinywetsu	0.921	low
5	Minyehla	0.856	high
6	Thayettabin	0.814	high
7	Pagantat	0.906	low
8	Dongon	0.881	high
9	Winchan	0.928	low
10	Arr-laung	0.958	low
11	Sukarkin	0.925	low
12	Paukmyaing	0.821	high
13	Nanda	0.88	high
14	Aungchantha	0.849	high
15	Kyweyegon	0.954	low
16	Nyeinchantharsan	0.841	high
17	Nayyinsaya	0.914	low
18	Manawyama	0.889	high
19	Patheinlay	0.905	low
20	Kyarnikan	0.917	low
21	Ywathit	0.892	high

22	Inngyin	0.92	low
23	Gandama	0.957	low
24	Dahattaw	0.666	very high
25	Kyaungmon	0.883	high
26	Kangyi	0.885	high
27	Kanpyin	0.878	high
28	Bok	0.854	high
29	Mingan	0.677	very high
30	Sinputgyi	0.886	high
31	Hmanpin	0.924	low
32	Sinywagyi	0.754	very high
33	Zeechogon	0.904	low
34	Hnumkye	0.858	high
35	Patheingyi	0.359	highest
36	Yegtwet	0.806	high
37	Mekingon	0.759	very high
38	Yankintaung	0.796	very high
39	Shindawgon	0.855	high
40	Nanoolwin	0.822	high
41	Thanmataw	0.935	low
42	Yekyi	0.885	high
43	Aainggyi	0.881	high
44	Bauntkwe	0.936	low
45	Baunttin	0.935	low
46	Botetkon	0.945	low
47	Letkaung	0.943	low
48	Thalekon	0.911	low
49	Yelaung	0.888	high
50	Zeeoat	0.944	low
51	Tadaingshe (S)	0.895	high
52	Tadaingshe (N)	0.876	high
53	Ngwedaung	0.889	high
54	Kyaukme	0.648	very high
55	Letthit	0.958	low
56	Kyuwun	0.93	low
57	Ohnchaw	0.404	highest
58	Sedaw	0.923	low
59	Shwesayan	0.758	very high

Source: Computed by the researcher

The result provides the percentage included among the range value in the denominator. Therefore, in the result the reasonable meaning will be provided i.e. the greater the resulting figure, the lower the HR development. In comparison, it is

appropriate to assume that the village tracts having composite index less or equal to (Mean – 2SD) are very high level developed. Similarly the village tracts having composite indices between (Mean – 1SD) to (Mean) are classified as high level developed. In the same way the village tracts having composite indices less than Mean are classified as low level developed. It is assumed that this method provides appropriate and comprehensive result if the data that represents the actual condition of each development indicator are found.

According to the Composite Index for the human resources, the average ( $\bar{X}$ ) is 0.86 and the standard deviation ( $\sigma$ ) is 0.12. Based on the average and the standard deviation, development groups of Patheingyi township are classified into four groups: the highest developed group having a composite index smaller than 0.62, very high developed level that has 0.62 - 0.74 of composite index, high level with 0.74-0.86 of composite index, and low level with 0.86-0.98 of composite index. In the highest developed group, in descending order of rank, Patheingyi township with 0.359 and Ohnchaw village tract with 0.404 are included. In the very high group are included three village tracts such as Kyaukme, Dahattaw and Mingan with composite values of 0.648, 0.666, and 0.677, respectively. In the high developed level group, there are 14 village tracts, namely Sinywagyi, Shwesayan, Mekingon, Yankintaung, Yegtwet, Thayettabin, Paukmyaing, Nanoolwin, Nyeinchantharsan, Aungchantha, Bok, Shindawgon, Minyehla, and Hnumkye. The remaining 40 village tracts fall in the low developed level group. Finally it is recognized that in Patheingyi township 1 town and 1 village tract are in the highest developed level, 3 village tracts in the very high developed level, 14 village tracts in high developed level, and 40 village tracts in low developed level.

This research shows that there are 1 town and 18 village tracts with high developed level in HRD, and 40 village tracts with low developed level in HRD. Causes for low developed level are found due to poor transportation and being remote from the town.

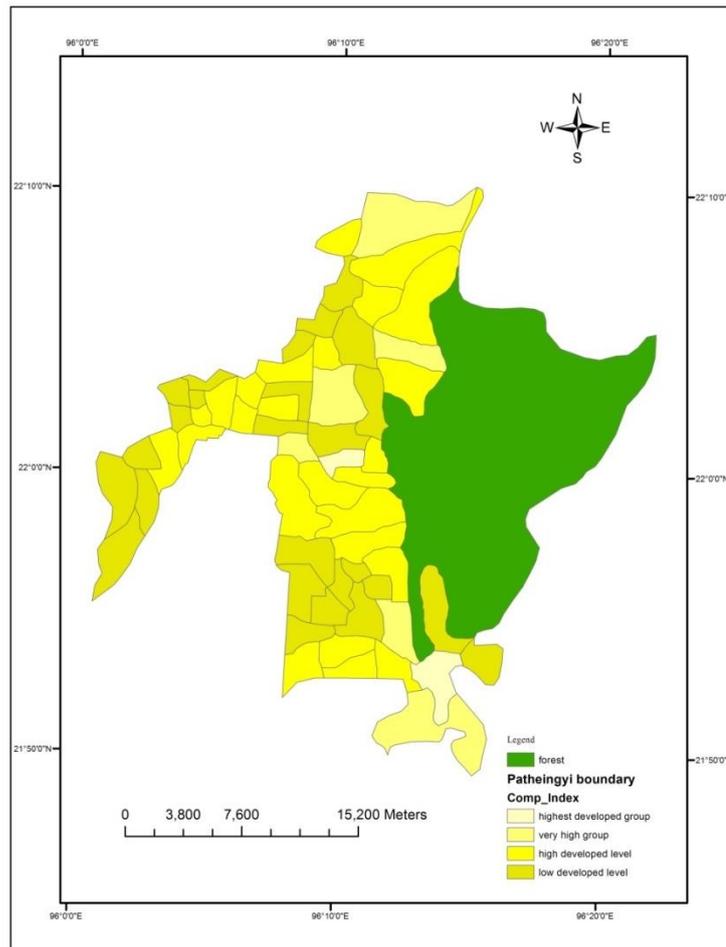


FIGURE- 2 COMPOSITE INDEX OF PATHEINGYI TOWNSHIP

Source: Compiled by the researcher

Gaintgyi, Kyunsin, Hpohlagon, and Hinywetsu are island village tracts which are located in the Ayeyarwady River channel, remote from Mandalay city, less accessible, and lack of facilities on education and health affairs. If the necessary facilities are fulfilled and good accessibility is created, it will certainly improve the human resources of the villages.

Pagantat, Dongon, Winchan, Nanda, and Kyweyegon are village tracts close to Mandalay City but most of the villagers are manual workers. Therefore, they are out of reach to get improvement in human resource. One day those village tracts may be incorporated into Mandalay City and their human resources may be improved.

Arr-laung and Sukarkin are also found as village tracts low development level in human resource because they are far from the city and poor in transportation. There, transportation and communication should be upgraded to a certain better level so that their human resources will improve into a certain extent.

Generally being far from the city and poor in transportation are major causes that result in low development level of human resource in Patheingyitownship.

Examples of such village tracts are Nayyinsaya, Manawiyama, Ywathit, Inngyin, Kangyi, Kanpyin, Sinputgyi, and Hmanpin lying in northern part of Patheingyi township and those such as Yekyi, Ainggyi, Baunkwe, Baunttin, Yelaung, Zeeoat, South Tadaingshe, North Tadaingshe, Letthit, Kyuwun, Sedaw and Shwesayan which are located in the southern part of the township. For those village tracts, seasonal roads should be paved, some of communicationable media should be established, opportunities for better income should be created, and necessary basic infrastructure on health should be set up so that human resources of such village tracts will improve difinitely.

According to this research analysis, although the village tracts of Gandama, Kaungmon, Kyarnikan, and Patheinlay are found to be of low developed level in human resource, proximity to Mandalay Computer University will result in the development in human resource of such village tracts in near future.

Zeechogon, Letkaung, Thanmataw, Thalekon, Botetkon, Yelaung, and Zeeoat are the village tracts, with low development level in human resource and these villagers are mostly manual workers. However, one day they will be incorporated into the town area and their human resources are also expected to improve more than ever before.

Finally one thing to suppose is to note first by are the transportation and communication infrastructure and then to fulfill the needs on health and education of the village tracts which known are to be in low development level according to this research because development of human resource in Patheingyi township depends on good transportation and good communication with Mandalay City.

Now-a-days roads in Patheingyi Township have been being extended and upgraded, particularly village-to-village roads, roads connecting the Mandalay-Madaya road with the associated nearby village tracts, the Mandalay-PyinOoLwin road, and the Htonbo-Myitnge road. Moreover, the earthen road of Kyarnikan to Mingan-Bok is also being upgraded from grade one to grade two. If these roads are finished transportation of the township will become more convenient. In addition, some of primary schools are also being upgraded to post-primary schools and some post-primary schools to middle schools. On the other hand, public library is open at every village. Therefore, it is expected that the above-mentioned conditions will help human resource of Patheingyi Township more develop than ever, in near future.

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