Topic 4 - Analysis of Regional Development

4.1 System-diagnostic analysis of the regional development

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4.4 Analysis of the labor potential of the region

4.5 Regional employment program

4.1 System-diagnostic analysis of the regional development

The diagnostics of the region can be started with the determination of human potential development index (HPDI).

HPDI is defined as an arithmetical mean of three indices:

$$HPDI = \frac{1}{3} \sum_{i=1}^{3} \frac{x_i - x_{\min}}{x_{\max} - x_{\min}}$$

- where X1- is the prospective life expectancy at birth. By the calculating the minimum is 25 years, maximum is 85 years;
- X2   - is the level of education.
- *X3* - is real Gross Domestic Product (GDP) volume for 1 person (in dollars). In calculating *Xmiп* = $ 100 and *Xmax* = $ 5448 (for Ukraine X = $ 1630).

The monitoring of socio-economic status of the region is carried on the following main directions

1. *the diagnosis of natural resources potential*

2. *the demographic diagnostics and diagnostics of the labor market*

3. *the diagnostics of settling*

$$R = \frac{D}{0.5\sqrt{S/n}}$$

D - is the mean distance between the nearest settlements;

S - is the area of studied territory;

n - a number of settlements.

4. Diagnostics of the economic development level.

5. Environmental diagnostics of the region.

4.2 Analysis of the human development index in the region

- *Human Development Index* is the index for comparative assessment of poverty, literacy, education, life expectancy and other indicators of the region.

- describes one aspect of the development potential of the region and with the proper weight is taken into account in the integral index.

$$HDI = \sum_{i=1}^{9} X \cdot P$$

X - is the generalizing index HDI

P – is the weight in the HDI index.

The summarizing indexes represented by 9 kinds:

1. *Demographic development;*
2. *Development of the labor market;*
3. *Material prosperity of the population;*
4. *Living conditions of the population;*
5. *The level of education;*
6. *The state and health safety;*
7. *Social environment;*
8. *Environmental situation;*
9. *Financing of human development.*

- Index – stimulant is an indicator of growth which increases the human development index.
- Score - destimulator - is an indicator of growth which helps reduce the human development index.

For performance-stimulants the summarizing indicators are calculated by the formula:

$$y_{ij} = \frac{Z_{ij} - Z_{j\min}}{Z_{j\max} - Z_{j\min}}$$

Z_{ij}- is the i-th index value in the j-th region;

$Z_{j\,min}$ - is the minimal value of i-th index in the j-th region;

$Z_{j\,max}$ - is the maximal value of i-th index in the j-th region

For the destimulators-indexes the index rate is calculated with the formula:

$$y_{ij} = \frac{Z_{j\max} - Z_{ij}}{Z_{j\max} - Z_{j\min}}$$

4.3 The concepts and methods of labor potential of the region

- *The labor potential* - is a system which elements are the human resources in taking into consideration of their all quantitative and qualitative characteristics, employment and jobs.

- *The human recourses* are the potential utilization of labor, of which the regions consist at a particular time.

Methods of labor potential of the region

- *The legal* one is defined by the Constitution of Ukraine by the Law on employment of people" and other laws.
- *Economic methods* are based on forecasts elaboration and regional socio-economic development programs the component of which is employment programs

4.4 **Analysis of the labor potential of the region**

The human recourses in regions cover the working age population, pensioners and young workers and are defined by the following formula:

$$HR = Pw - (Pu + Du) + (Pw + Tw),$$

where *HR* – is the number of human resources during the expected period;

Pw - is the population of working age;

Pu – is the unemployed pensioners of working age;

Du - is the unemployed disabled people in working age;

Pw – is the working pensioners of retiring age;

Tw – is the working teenagers under 16.

The quality of labor potential is a relative concept. Formally, it can be examined by the following criteria:

- *General education and vocational training* - the general proportion of working-age population with secondary education;
- *Qualification training* –the share of total working age population who has completed training in schools to III accreditation level including;

- *Higher education* – the general proportion of the working population who has completed training in educational institutions including the IV-th level of accreditation;
- *Restoration of the vocational knowledge* - is the share of total working population, who has improved their skills;
- *Health* – a system of indicators that characterize the collective health of the working population (morbidity, disability, clinical records levels, etc.);

- *Age* - the average age of workers, this value deviation from the regional norm of age;
- *Gender* - deviation of the working population sex structure from regional standards of the needs for a workforce of definite sex;
- *Family structure* - the number of preschool children per 1000 mothers of working age, the share of families where there are three or more dependents per a worker.

The balance of labor resources in the region

Balance divisions	Year		Changes in plan balance as to account
	Account	Prevision	
I. labor recourses – total, including:			
working population in working age			
population of pension age			
pensioners of working age			

II. labor resourses distribution

1.into the employment kinds :

- engaged in individual labor activity in cooperation
- people of 16 and older, who study out of the production

2. into spheres of production:

- in production sphere
- in intangible production sphere

3.   into fields:

- industry
- Agriculture
- construction
- Transport
- communication

4.into social groups:

- workers and employees
- members of collective farms

4.5 **Regional employment program**

It consists of the following sections:

- The current situation analysis in the labor market;

  - Forecast of labor market development;

  - The main tasks and priorities of the program;

  - The mechanism of program management.

The mechanism of program management

The mechanism of employment program management

State administration analysis and informing of the labor market conditions

Population employment organization in the categories, profession and speciality profile

The proposals elaboration on employers and trade union organization activities

The enlightment of the labor market state by means of Mass Media

The employment fund usage