

# Sport Development Index of Banyumas Regency

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**Abstract.** The purpose of this study is to evaluate the local government's success in its development, especially in the field of sports from the aspect of open space availability, community participation, sport resource, and community fitness level (Sport Development Index) that an evaluative research approach is conducted in this study. The research employs both stratified random sampling and cluster sampling technique. The population basic characters used include; the differences of regional progress level, gender between male and female, age ranging from children aged 7-12 years old, adolescents aged 13-17 years old and adults aged 18-40 years old, while the basic cluster used is district and sub-district or village. The research results show that the open space index is classified in low category (0.180), human resource index in medium category (0.551), public participation index in medium category (0.572), and physical fitness index in low category (0.488). Simultaneously, the Sport Development Index of Banyumas Regency in 2010 is classified in low category (0.487).

## 1. Introduction

Based on Law No. 3 year 2005 concerning on Indonesian National Sport System, it is mentioned that the pillar of sports is not only dealing with sport achievements, but also sport education and recreation. By simply measuring the sport success based on medals, we have belittled the meaning of sport education and recreation. Based on the national data taken from the Central Bureau of Statistics 2005, it shows that people who do sports for achievement purposes are only by 7.8%, while for health purposes by 65.2% and others by 27.0%. Thus, it is obviously inappropriate when the sport success is only measured from the sport achievements with the number of medals used as the indicator.

The sport index in European countries is developed based on seven indicators explaining the social significance of recreational sports, sport clubs, sport schools, population access for sports, socio-political and economic sport significance, as well as the importance of professional {17}. In Finland, the changes in success and development of sport policies cover three international sport phases: amateurism, totalization and professionalism (18). Meanwhile in Switzerland, the development of community sports has a relatively higher participation rate, yet the differences between regions in the original country are closely related to the historical, cultural and economic factors {7}.

The government policy on sport sectors as stipulated in Government Regulation No. 16 Year 2007 Article 92 has provided an operational explanation on the requirements of Sport Minimum Service Standards, including: open space for sports, human resources in sports, community participation, and community physical fitness level. In its development, those four dimensions become the bases for measuring the progress of sports development better known as Sport Development Index, hereinafter abbreviated as SDI (14).

Nationally, the Indonesian SDI in 2005 is only at 0.220, which is classified, in low category (10). Meanwhile, the SDI in 2006, that figure increases up to 0.280, yet is still classified in low category (21). In the following years, some regions make similar studies. The results of a research conducted Jambi City Sport Development Index is in low category (0.318). Similarly, the Sport Development Index in Pontianak is also only at 0.302.

Banyumas regency is one of three major development areas for the achievement-based sports in Central Java, after Semarang and Surakarta. However, no studies have been conducted from the aspect of sport development index (SDI) as the indicator for a simultaneous sport development success.

## 2. Material and Methods

The focus of this research is to measure the sport development index in Banyumas Regency. The results of this research are expressed through index in the form of figures that this research is classified into a quantitative research type. As the purpose of this research is to evaluate the success of local government in the development, especially in the field of sports, an evaluative research approach is then conducted. Both stratified random sampling and cluster sampling technique are employed. The stratification is required to present the existing regional and community conditions in Banyumas regency that are greatly heterogeneous. Meanwhile, the cluster sampling is used considering to the research target area.

The basic population characters used: 1) differences in regional development levels: developed, developing, and underdeveloped. 2) gender differences of male and female, 3) age differences ranging from children aged 7-12 years old, adolescents aged 13-17 years old and adults aged 18-40 years old. The cluster area components used are district and sub-district/village. The population targets include 27 districts and 301 sub-districts/villages that 3 districts are randomly selected, consisting of North Purwokerto district representing the developed regional level category, Wangon district representing the developing regional level category, and Banyumas district representing the underdeveloped regional level category. Three sub-districts/villages are then also randomly selected from each selected district. Each sub-district consists of 30 people that the number of samples in one district is 90 people. Thus, the total research samples are 270 samples.

The research data sources consist of both primary and secondary data. The primary data consist of; community participation, open space availability, human resource in sports, and community physical fitness. Meanwhile, the secondary data cover number of population, regional area, and potential in sports. Thus, the data are collected with several sampling techniques: 1) Observation, used to obtain information about; regional area, number of population, potential in sports, human resource, and open space; 2) Questionnaire, used to obtain information about; community participation in sports; 3) Test, used to obtain information about; community physical fitness level, that Multi Stage Fitness (MFT) test is conducted; 4) Interview, used to obtain deeper information from the credible and related informants.

## 3. Result and Discussion

### a. Outdoor

Open space availability may be utilized by the communities for sport activities in those three districts is presented in the table below:

Table 1. Open Space Index Analytical Results

Aspect	Wangon District	North Purwokerto District	Banyumas District	SDI
Open Space	0.179	0.146	0.215	
Average				0.180

The results of data analysis from those three districts show that the open space index for sports in Banyumas Regency is 0.180. Based on SDI criteria, this figure is classified in low category.

**b. Human Resources**

The existing human resources, such as sport coaches, physical education teachers, and sport instructors in those three districts are shown in the table below:

**Table 2. Human Resource Index Analytical Results**

Aspect	Wangon District	North Purwokerto District	Banyumas District	SDI
Human Resource	0.865	0.514	0.274	
Average				0.546

The results of data analysis from those three districts show that the human resource index in Banyumas Regency is 0.546. Based on SDI criteria, this figure is classified in medium category.

**c. Public participation**

Public participation is the direct and active involvement of communities as the sport actors either formally or informally in those three districts as presented in the table below:

**Table 3. Community Participation Index Analytical Results**

Aspect	Wangon District	North Purwokerto District	Banyumas District	SDI
Public Participation	0.635	0.835	0.246	
Average				0.572

The results of data analysis from those three districts show that the community participation index in Banyumas Regency is 0.572. Based on SDI criteria, this figure is classified in medium category.

**d. Physical fitness**

Physical fitness in this case refers to the level of body's capacity to perform activities without significant fatigue experienced by the community in those three districts as presented in the table below:

**Table 4. Community Physical Fitness Index Analytical Results**

Aspect	Wangon District	North Purwokerto District	Banyumas District	SDI
Physical Fitness	0.609	0.473	0.469	
Average				0.517

The results of data analysis from those three sub-districts show that the physical fitness index in Banyumas Regency is 0.517. Based on SDI criteria, this figure is classified in medium category.

The results of data analysis obtained from each dimension in those three districts are then used as the basic calculation for SDI index in Banyumas Regency. Each dimension index may be seen in table 5 below.

**Table 5. The Results of SDI Analysis in Banyumas Regency**

No.	District	Open Space Index	Human Resource Index	Public Participation Index	Physical Fitness Index	SDI
1.	Wangon	0.179	0.865	0.635	0.609	0.572

2.	North Purwokerto	0.146	0.514	0.835	0.865	0.590
3.	Banyumas	0.215	0.274	0.246	0.469	0.301
Average		0.180	0.551	0.572	0.488	0.487

The results of data analysis from those three districts in Banyumas Regency show the average SDI index of 0.487 which is classified in low category.

The open space index of 0.180 indicates low category. In facts, this index is similar with that nationally in 2004 by 0.380, in 2005 by 0.110, and in 2006 by 0.266 (16). Open space refers to a place designated for sports activities by a number of communities in the form of buildings and or lands. Thus, open space is greatly required by the communities to perform physical activities. However, with the resulted low index, it can be concluded that the ratio between the availability of open space with the number of population above 7 years in Banyumas Regency is still lacking. This condition may be clearly explained that although there are still many open land areas in rural areas, yet not intended as places for sport activities. On the other hand, the open spaces in urban areas are greatly difficult to obtain for sport activities. Thus, it is not surprising that the parking lots, parks, and road bodies are used to perform sport activities, such as football by adolescents.

The human resource index of 0.551 is classified in moderate category. That index is higher than that nationally in 2004 by 0.115, 2005 by 0.047, and in 2006 by 0.099 {15}. The human resource figure is measured based on the ratio between the numbers of physical education trainers/instructors/teachers with the population over 7 years old in the related region. Thus, it can be concluded that in Banyumas Regency, the human resources are adequately provided in the form of physical education trainers/instructors/teachers expected to actively play their roles as the driving forces and facilitators for the communities and local government to develop sports in the related regions. This condition may be clearly explained as the annually increasing number of high school graduates go to college and choose to join the physical education or sport science study program.

The public participation index of 0.572 is classified in medium category. That index is higher than that nationally in 2004 by 0.345, in 2005 by 0.384, and in 2006 by 0.422 {15}. This condition shows that participation as a sport development dimension is already high. Thus, public awareness on healthy and active life throughout their life time is getting better. It means that the more individuals participating in sport activities in one area, the higher the public awareness in that area to have a healthy life and quality. Public higher participation reflects their interest and appreciation in sport activities. Thus, it can be concluded that participation is believed as a strong foundation as the prerequisite for sport buildings of not only the educational and recreational, but also the achievement-based sports.

The fitness index of 0.488 is classified in low category. The index is similar to that nationally in 2004 by 0.540, in 2005 by 0.352, and in 2006 by 0.335 {15}. This figure shows that the level of body's capacity to perform activities without experiencing significant fatigue is still low. This condition may explain that science and technology may impact the patterns of community activities. The results of survey conducted by the Health Department in 2001 report that 56% (27% male and 29% female) of people aged 25 years and over suffer from hypertension, 3% with heart disease, 1.2% with diabetes, and 5.9% with obesity (overweight).

The Sport Development Index of Banyumas Regency in 2010 is 0.487 that it is classified in low category based on SDI criteria: 0 – 0.499: low; 0.500 – 0.799: medium; and 0.800 - 1: high. Thus, Banyumas Regency which is at the point of 0.487 is in SDI index ranging from zero to one. An index point addition of 0.513 is still required to achieve the condition considered high or perfect for the sport development. This figure also provides guidance for the policy makers in the field of sports to make various improvements, especially on open space availability aspect. Some efforts may be performed by increasing the availability of open areas provided for the communities to perform sports activities. With these efforts, the Sport Development Index of Banyumas Regency may be continuously increased from time to come.

#### 4. Conclusion

Banyumas Regency open space index is classified in low category (0,180), human resource index in medium category (0,551), public participation index in medium category (0,572), and physical fitness index in low category (0,488). Simultaneously, the Sport Development Index of Banyumas Regency in 2010 is classified in low category (0.487).

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