A Big Earth Data Platform for Three Poles

**Population, urbanization, GDP and industrial structure forecast scenario data of the Manasi River Basin (Version 1.0) (2010-2050)**

1、Description

Taking 2005 as the base year, the future population scenario was predicted by adopting the Logistic model of population. It not only can better describe the change pattern of population and biomass but is also widely applied in the economic field. The urbanization rate was predicted by using the urbanization Logistic model. Based on the existing urbanization horizontal sequence value, the prediction model was established by acquiring the parameters in the parametric equation by nonlinear regression. The urban population was calculated by multiplying the predicted population by the urbanization rate. The data adopted the non-agricultural population. The Logistic model was used to predict the future gross national product of each county (or city), and then, according to the economic development level of each county (or city) in each period (in terms of GDP per capita),the corresponding industrial structure scenarios in each period were set, and the output value of each industry was predicted. The trend of changes in industrial structure in China and the research area lagged behind the growth of GDP and was therefore adjusted according to the need of the future industrial structure scenarios of the research area.

2、Keywords

Theme：Population,Gross domestic product,Social and Economic,Urbanization,Industrial structure,GDP per capita,Population number,Environment Pollution and Control  
Discipline：Human-nature Relationship  
Places：Manasi River Basin  
Time：2010-2050, 2005

3、Data details

1.Scale：None

2.Projection：

3.Filesize：100.0MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：85.0 | - | east：87.0 |
| - | south：43.0 | - |

5、Time frame:2005-01-12 04:25:00+00:00--2051-01-11 04:25:00+00:00

6、Reference method

References to data:

Population, urbanization, GDP and industrial structure forecast scenario data of the Manasi River Basin (Version 1.0) (2010-2050). A Big Earth Data Platform for Three Poles, doi:10.11888/GlaciolGeocryol.tpe.00000040.file2018

References to articles:

张九天, 何霄嘉, 上官冬辉, 钟方雷, 刘时银. (2012). 冰川加剧消融对我国西北干旱区的影响及其适应对策[J]. 冰川冻土, 34(4), 848-854.  
  
国家发展和改革委员会. (2012). 气候变化对中国的影响评估及其适应对策. 科学出版社.

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider