A Big Earth Data Platform for Three Poles

**Ecological security evaluation and landscape planning data of the inner flow area of Hexi Corridor (1949-2002)**

1、Description

The project of ecological security evaluation and landscape planning in the inner flow area of hexi corridor belongs to the major research plan of "environment and ecological science in western China" of the national natural science foundation, led by researcher xiao duning of the institute of cold and dry environment and engineering, Chinese academy of sciences. The project runs from Jan. 2002 to Dec. 2004.  
The data of the project is the ecological data of the inner flow area of hexi corridor, including heihe basin, shiyang river basin, shule river basin and river runoff.   
  
Investigation and analysis data of ejin banner in heihe river area  
1. Soil moisture TDR data  
The data is stored in Excel format and includes both tubular and well 2002 soil moisture survey data.   
Tube TDR data  
Tubular soil moisture survey data with 1.8m underground intervals of 0.2 m on June 1, June 11, June 21, July 1, July 11, July 21, July 31, August 11 and August 21, 2002, including erdaqiao, gobi, forest farm, qidaqiao and tseng forest.   
Well TDR data  
Data of well soil moisture survey on June 21, July 1, July 11, July 21, July 31, August 11 and August 21, 2002, which included willows, gobi, populus euphratica and weeds, with intervals of more than 5 meters and 0.2 meters underground.   
Groundwater GPS data  
In Excel format, the TDR observation points were measured by GPS, including basic information such as longitude, latitude and elevation, plus information such as water level, logging type and remarks.   
2. Soil nutrient salinity data  
To Excel format, 42 samples containing "total oxygen N %", "total phosphorus P %", "% organic matter", "hydrolysis N N mg/kg", "organic P P mg/kg", "available K K mg/kg", "% calcium carbonate", "PH", "the % of salt" and "total potassium % K" nutrient investigation and analysis of data, such as 42 samples containing "conductance value (%) computing the salt", CO3, HCO3, CI, SO4, Ca, mg, Na + K salt investigation and analysis of data, etc.   
3. Soil mechanical composition  
In Excel format, 42 sample points contained soil particle composition information analysis tables of depth (cm), percentage of particle content at each level (sieve analysis method) (>2mm, 2-1mm, 1-0.5mm, 0.5-0.25mm and 0.25-0.1mm) and percentage of particle content at each level (straw method) (<0.1mm, 0.1-0.05mm, 0.05-0.02mm, 0.02-0.002mm and <0.002mm).   
4. Meteorological data of erqi station  
Is the Excel sheet, including rainfall data from 1957 to 1998, evaporation data from 1957 to 1998, temperature data from 1957 to 1991, wind speed data from 1972 to 1992, maximum temperature data from 1972 to 1992, minimum temperature data from 1972 to 1992, sunshine data from 1972 to 1992 and relative humidity data from 1972 to 1992.   
Scan copy of jiuquan area  
The scanning copy of the general map of land use status in jiuquan 1:300,000, the scanning copy of the evaluation map of the distribution of cultivated land reserve resources in jiuquan 1:300,000 and the scanning copy of the district map of jiuquan 1:300,000  
Zhang ye water protection information  
It contains the statistics of water and soil conservation in the regions of ganzhou district, gaotai district, linze county, minle county, shandan county, sunan county and zhangye city in zhangye region (stored in Excel format) and the planning report of each region (stored in Word format).   
Shiyang river basin  
Jinchang water resources survey data  
It includes the scan of 1:50000 water resource distribution map of jinchang city in 1997, the average decline degree of groundwater level in qinghe and jinchuan irrigation areas in jinchang city from 81 to 2000, the statistical table of annual groundwater supply in 1986, 1995 and 2001, and the survey and evaluation report of cultivated land reserve resources in jinchang city.   
Survey data of water resources in minqin  
Includes detailed minqin county area typical Wells status per acre crops irrigation water use questionnaire, irrigation, industrial and agricultural water use questionnaire, seeded area of villages and towns questionnaire, the survey data of groundwater hardness index, minqin county of surface runoff and the runoff change situation report, irrigation water quota formulation of evaluation report, minqin county water resources development and utilization of report and opinion polls irrigation works report, etc.   
Zoning map of soil improvement and utilization in wuwei area  
For the scanning part of water and soil conservation planning map of wuwei city, the scanning part of the location map of wuwei irrigation area, the scanning part of the scanning part of the administrative map of wuwei city, the scanning part of the water source and water conservancy project construction map of wuwei city, the scanning part of the planning map of wuwei sanbei phase ii shelterbelt project and the scanning part of the administrative map of liangzhou district.   
Yongchang county water protection information  
It is the scanning copy of the soil and water conservation supervision, prevention and control plan of 1994 in yongchang county at 1:20000.   
Shule river basin  
Distribution map of water resources development and utilization in yumen city  
It consists of four jpeg images, a 1:250,000 general scanning map of yumen's water resources development and utilization in 2002, and three high-resolution sub-maps.   
River runoff  
This data set is stored in Excel format, mainly including the total flow of three basins from 1949 to 2002, the annual runoff of each tributary of the basin, the annual runoff of detailed investigation areas such as jiuquan and the upstream inflow of yuanyang pond reservoir.   
Total basin  
Is the annual runoff data of heihe river basin, shiyang river basin and shule river basin from 1949 to 2002.   
Annual runoff of black river  
Is the annual runoff data of heihe river, liyuan river, taolai river, hongshui river, qingshui river, fengle river and hongsha river from 1949 to 2002.   
Annual runoff of shiyang river  
Is the annual runoff data of xidahe river, dongdahe river, xiying river, jinta river, zama river, huangyang river, gulang river, dajing river and other tributaries from 1949 to 2002.   
Annual runoff of shule river  
Is the annual runoff data of dang river, shule river and harten river from 1950 to 2002.   
Annual river runoff in jiuquan area  
For the annual flow data of changma gorge of shule river, dangcheng bay of danghe river, junmiao of shule river, baiyang river, icegou of toulai river, yuanyang pond of toulai river, xindi of hongshui river, fengle river, hongsha river of maying river and suang river of yulin river in jiuquan region from 1950 to 2002.   
Statistics of upstream inflow of yuanyang pond reservoir  
The data are the upstream inflow data of yuanyang pond reservoir from 1959 to 2001.

2、Keywords

Theme：Soil,Runoff,Precipitation,Temperature,Humidity/Dryness,Hydrology,Soil moisture/Water content  
Discipline：Atmosphere,Terrestrial Surface  
Places：Heihe River Basin, Shiyang River Basin, Shule River Basin, Hexi corridor inner flow area  
Time：1949-2002

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：433.37MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：49.36 | - |
| west：73.45 | - | east：111.2 |
| - | south：20.9 | - |

5、Time frame:1949-01-15 00:00:00+00:00--2003-01-14 11:59:59+00:00

6、Reference method

References to data:

Xiao Duning. Ecological security evaluation and landscape planning data of the inner flow area of Hexi Corridor (1949-2002). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2703562010

References to articles:

肖笃宁等,2009. 河西走廊内流区生态资料,中国科学院寒区旱区环境与工程研究所

7、Supporting project information

8、Data resource provider

name: Xiao Duning  
unit:   
email: