DIAS CEOP CEOP_AP Pakistan Karakorum Reference Site

1. IDENTIFICATION INFORMATION

Name	CEOP CEOP_AP Pakistan Karakorum Reference Site
Metadata Identifier	CEOP_AP_Pakistan_Karakorum20230727061016-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

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2.2 CONTACT on PROJECT

2.2.1 Data Integration and Analysis System

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5. DATE OF THIS DOCUMENT

2023-07-27

6. DATE OF DATASET

creation : 2010-08-13

revision : 2011-11-22

7. DATASET OVERVIEW

7.1 Abstract

The HKKH mountain ranges are extraordinarily high mountain chains, spanning over thousands of kilometers across 6 South Asian countries and encompassing an extensive diversity of flora and fauna, unparalleled natural beauty and many varied cultures. They harbour some of the world.s richest but atmospherically, climatically, geologically and ecologically sensitive and fragile environments and biodiversity, and many protected areas of profound importance are in these mountain regions. The glaciers in these mountains feed most of the major river systems in the region (Ganges, Indus, Brahmaputra, Salween, Mekong, Yangtze and Yellow Rivers) - lifeline for hundreds of millions of peoples downstream. The Central Karakorum ecosystem in the Northern area of Pakistan is endowed with rich floral and faunal biodiversities, natural beauty and other natural resources such as forest resources.

Askole is the last village on the route to the Baltoro Glacier and K2. It.s average elevation is 3000 m a.s.l., the village is on the right side of the valley and just north of the main river, on a moraine highland with small inclination toward the river, where local people carry out little agriculture. The station is on the lower, southern part of the moraine platform, near the edge above the river, and has open visibility toward East (valley upward), West (valley downward), South (in front of opposite side of the valley) and North (leading to the slopes of the mountain surrounding the village). The installation is located about 200 meters south from the Lorenzo Mazzoleni Dispensary in the middle of the cultivated area, protected by a resistant fencing.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	2004-06-17 00:00:00
End Date	2008-12-31 23:59:59
Temporal Characteristics	Hourly

7.4 Geographic Bounding Box

North bound latitude	36.000000
West bound longitude	73.000000
Eastbound longitude	77.000000
South bound latitude	34.000000

7.5 Grid

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Climate, Water	GEOSS

7.7.2 Keywords on Project

7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS > Data Integration and Analysis System	No_Dictionary

7.8 Online Resource

CEOP_AP Pakistan Karakorum Surface Meteorology and Radiation Data Set : http://data.eol.ucar.edu/codiac/dss/id?76.200

Pakistan Karakorum Reference Site Askole Station : http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Pakistan/Askole/

Pakistan Karakorum Reference Site Urdukas Station : http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Pakistan/Urdukas/

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
PRN	no information	CEOP Unified Format

8. DATA PROCESSING

8.1 Data Processing (1)

8.1.1 General Explanation of the data producer's knowledge about the lineage of a dataset

Air temperature, relative humidity, solar radiation and atmospheric pressure are averaged over the previous hour. Precipitation is accumulated on the previous hour. Wind speed and direction are the resulting average speed and direction over the previous hour (calculated by the datalogger by means of data recorded every 5 seconds): this to minimize data unreliability due to sudden gusts. Both of them are calculated weighting the frequency distribution of both variables within each hour.

The three parameters indicated below were computed by using "CEOP Derived Parameter Equations" available at: http://www.joss.ucar.edu/ghp/ceopdm/refdata_report/eqns.html. These data have the flag "I". In the case of calculated by using dubious value flagged "D", the data flag was put D".

Dew Point Temperature was computed by using (Bolton 1980):

es = 6.112 * exp((17.67 * T)/(T + 243.5));

e = es * (RH/100.0);

Td = log(e/6.112)*243.5/(17.67-log(e/6.112));

where:

T = temperature in deg C;

es = saturation vapor pressure in mb;

e = vapor pressure in mb;

RH = Relative Humidity in percent;

Td = dew point in deg C

Specific Humidity was computed by using (Bolton 1980):

e = 6.112*exp((17.67*Td)/(Td + 243.5));

q = (0.622 * e)/(p - (0.378 * e));

where:

e = vapor pressure in mb;

Td = dew point in deg C;

p = surface pressure in mb;

q = specific humidity in kg/kg.

U,V Components were computed by using (GEMPAK):

U = -sin(direction) * wind_speed;

V = -cos(direction) * wind_speed;

8.1.2 Data Source

Data Source Citation Name	Description of derived parameters and processing techniques used

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

1. No financial implications are involved for the CEOP reference site data exchange.

2. Commercial use and exploitation of CEOP reference site data is prohibited.

3. Any re-export or transfer of the original data received from the CDA archive to a third party is prohibited.

4. The origin of CEOP reference site data being used for publication of scientific results must be acknowledged and referenced in the publication.

5. CEOP reference site data users are strongly encouraged to establish direct contact with data providers for complete interpretation and analysis of data for publication purposes.

6. Co-authorship of data users and CEOP reference site Principle Investigators on papers making extensive use of CEOP data is justifiable and highly recommended.

see http://www.eol.ucar.edu/projects/ceop/dm/documents/ceop_policy.html

10.2 Data Policy by the Project

10.2.1 Data Integration and Analysis System

If data provider does not have data policy, DIAS Terms of Service (https://diasjp.net/en/terms/) and DIAS Privacy Policy (https://diasjp.net/en/privacy/) apply.

If there is a conflict between DIAS Terms of Service and data provider's policy, the data provider's policy shall prevail.

11. LICENSE

12. DATA SOURCE ACKNOWLEDGEMENT

12.1 Acknowledge the Data Provider

A minimum requirement is to reference CEOP as:

The in-situ data is provided under the framework of the "Coordinated Energy and Water Cycle Observations Project (CEOP)."

for the Coordinated Energy and Water Cycle Observations Project data (2005), and as:

The satellite data is provided under the framework of the "Coordinated Enhanced Observing Period (CEOP)."

for the Coordinated Enhanced Observing Period data (2001 - 2004).

12.2 Acknowledge the Project

12.2.1 Data Integration and Analysis System

If you plan to use this dataset for a conference presentation, paper, journal article, or report etc., please include acknowledgments referred to following examples. If the data provider describes examples of acknowledgments, include them as well.

" In this study, [Name of Dataset] provided by [Name of Data Provider] was utilized. This dataset was also collected and provided under the Data Integration and Analysis System (DIAS), which was developed and operated by a project supported by the Ministry of Education, Culture, Sports, Science and Technology. "

13. REFERENCES

Original data was collected and is provided within the framework of the Ev-K2-CNR Committee, thanks to contributions of the Italian National Research Council, the Italian Ministry of Foreign Affairs and the Italian Ministry of University and Reseach.

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