

A hand is shown holding a glowing blue wireframe globe, which is superimposed over the screen of a laptop. The background is a blurred wooden desk with a laptop and some papers.

OPEN DATA & OPEN KNOWLEDGE Workshop

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Content:

- 1 Research data Licensing is one of key issues for dataset re-use and value adding
2. Data licensing methods
3. Practice and Impact in using data license for sciences
4. Practice and Impact in using data license for SDGs in local societies

1 Research data Licensing is one of keys for datasets re-use



Global Change Research Data Publishing & Repository

— Metadata, Data Products and Data Papers



Chinese | English



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Instructions for Author(s)

Statistics

Peer Reviewed Datasets: 1186
On line Datasets: 908,067MB
Total authors (Co...): 2003
Author Affiliation: 938
Authors from: 12 countries
Partner journals

Visitors: 10,895,050
Data Users (IP) : 105,552
Users from : 97 countries
Data Files
Downloaded: 401,689
Data Downloaded: 7040 GB

News

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- The Beijing Declaration on Research Data 2019-11-16

Digital Journal of Global Change Data Repository




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First Issue: June 2014(Pre-Print)
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Sponsors: IGSNRR/CAS, GSC
Pub. & Dis.: GCdataPR
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Statistics

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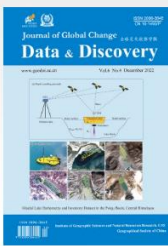


Open Science for Geographical Indications Environment & Sustainability



COVID-19 Knowledge & Data Hub

J. Global Change Data & Discovery



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Data users identified as:

1. Data users who want to know what the data is, action is browsing or take look at the datasets – data **browsers**
2. Data users who use the datasets to have successful discoveries – **data end users**
3. Data users who use the datasets to establish the data service platforms or systems– **value added data services**
4. Data users who derive records to create new datasets – **data compilers**

2. Licensing Datasets methods

- 1. Browsers:** free download, no extra permission needed (CC-BY-SA)
- 2. End users:** free use subject to citation, no extra permission needed (CC-BY-SA-CT)
- 3. Value added data services:** welcome to use subject to written permission (CC-BY-WP)
- 4. Data compilers:** welcome to use subject to 10% policy and citation (CC-BY-ND \geq 10%-CT)

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CC-BY

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3. Practice and Impact in using data license for sciences

- **Comprehensive Data Impact Score - *CDIS***

19 items from the following 5 fields:

- **Data repository in either National Data Center (20 in China) or international data centers (regular member of WDS, 86 in the world)**
- **Data service platforms**
- **Citations from either discoveries or new dataset creation**
- **No-commercial societies**
- **Commercial businesses**

440 datasets published between 2018-2022 were identified the CDIS

Q1: 5% -- 22 (CDIS: 26.469-15.67)

Q2: 15% -- 66 (CDIS: 15.529-12.136)

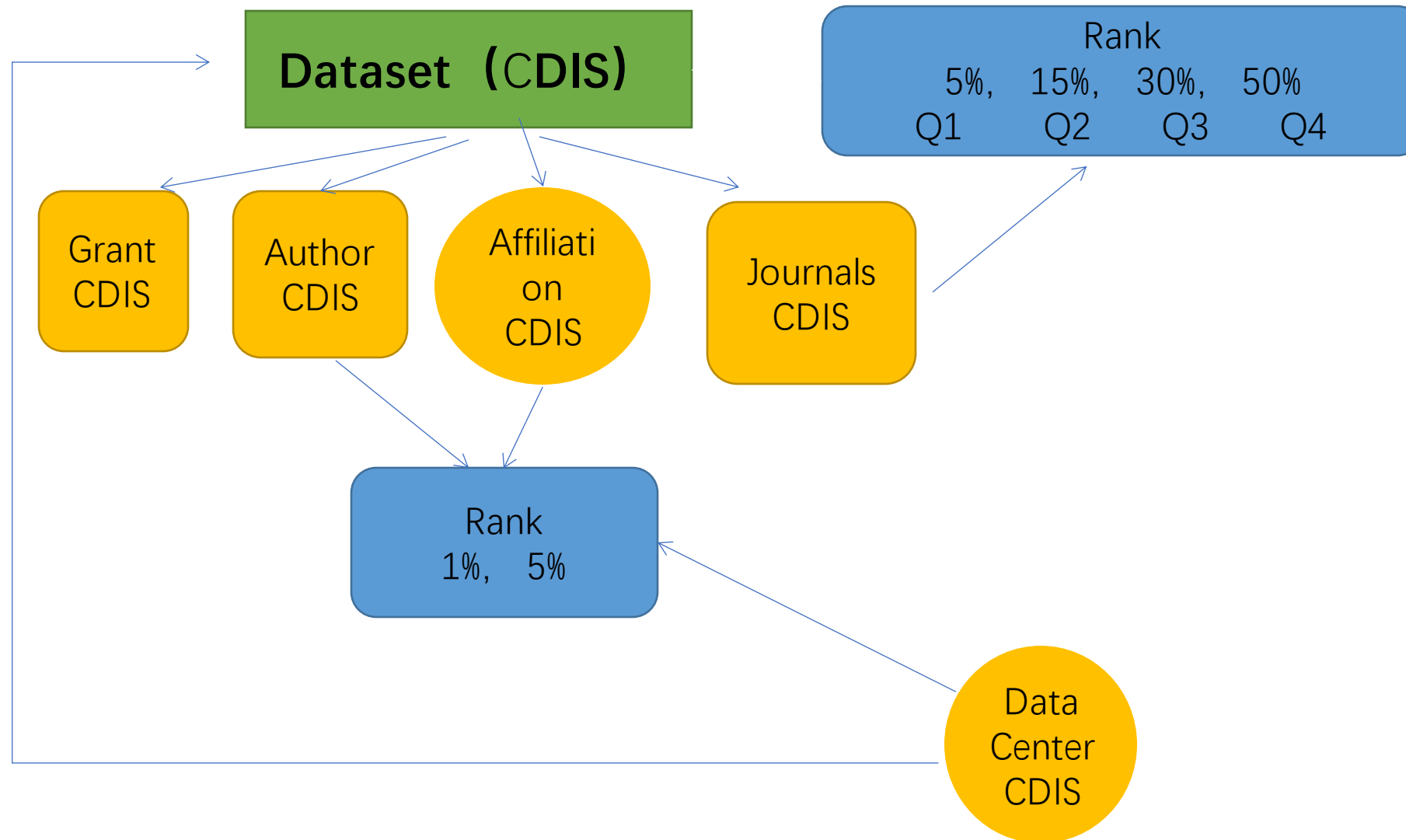
Q3: 30% -- 132 (CDIS: 12.136-9.431)

Q4: 50% -- 220 (CDIS: 9.431-8.00)

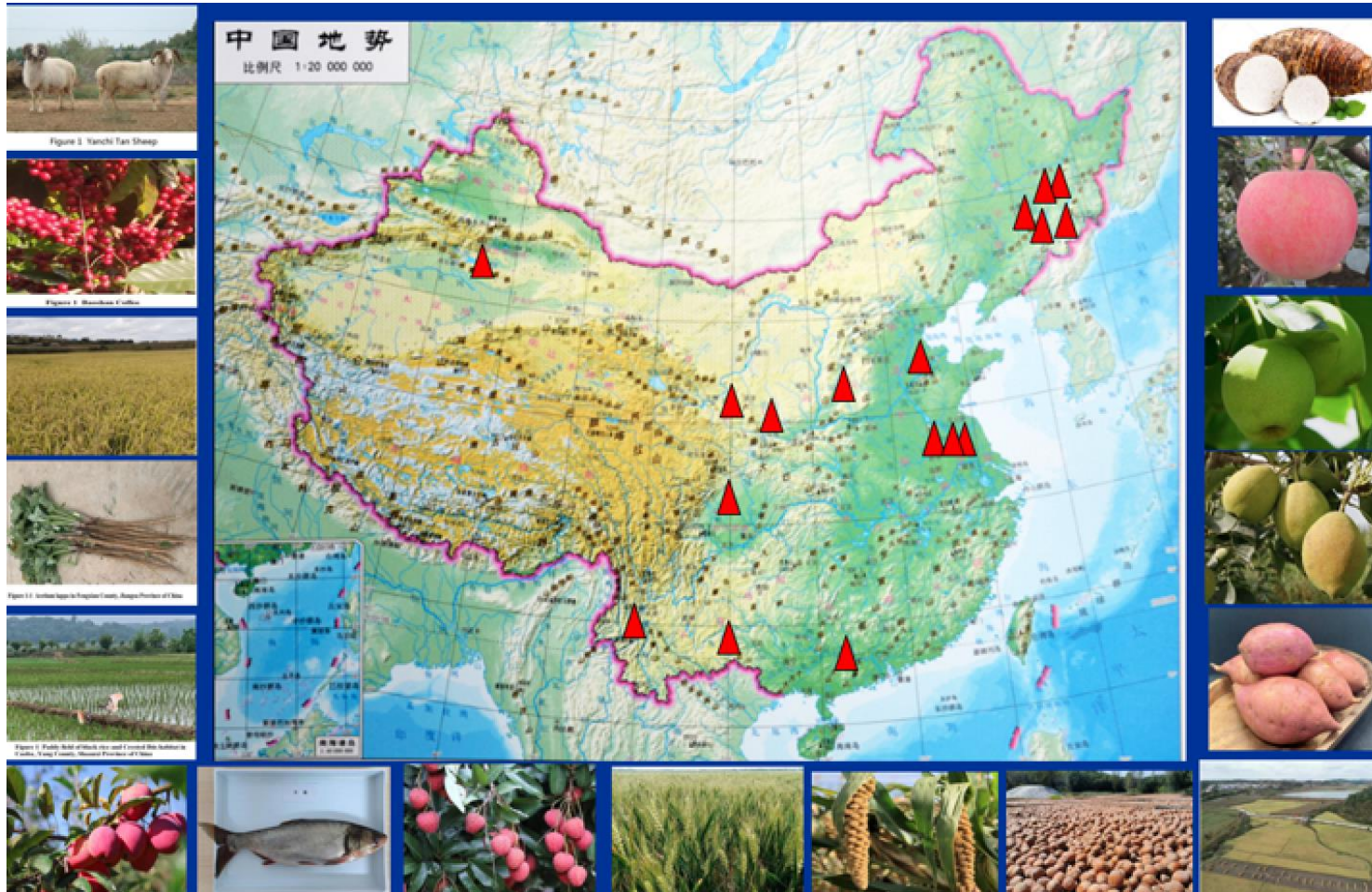
List of the Q1 datasets (2018-2022):

No.	DOI	Title of the dataset	CDIS	Author
1	10.3974/geodb.2021.02.01.V1	全球表层土壤水旬度数据集 (RSSSM, 2003-2018)	26.469	陈永喆
2	10.3974/geodb.2021.06.01.V1	磐石兰家村大米永久基本农田生境保护与可持续发展案例数据集	23.272	付晶莹
3	10.3974/geodb.2021.07.10.V1	青藏高原界线2021年版数据集	21.139	张镜锂
4	10.3974/geodb.2020.05.07.V1	内蒙古植被NDVI变化趋势及影响因子数据集 (2000-2015)	18.543	陈宽
5	10.3974/geodb.2021.04.07.V1	粤港澳大湾区海岸线类型及其时空变化数据集 (1979-2020)	18.511	苏倩欣
6	10.3974/geodb.2020.01.04.V1	RCP2.6和RCP4.5情景下中亚五国棉花和冬小麦逐年需水量数据集 (2020-2100)	18.163	田静
7	10.3974/geodb.2020.02.16.V1	城中村建筑物识别训练样本数据集	18.163	刘玉菲
8	10.3974/geodb.2020.05.17.V1	南京市六合区土地利用空间变化生态价值损益数据集 (2009, 2019)	18.163	王波
9	10.3974/geodb.2018.03.15.V1	基于亚洲和北美28个地面站点观测数据的叶面积指数验证数据集 (1 km, 2001-2011)	17.218	李静
10	10.3974/geodb.2020.03.26.V1	浙江沿海大气气溶胶新粒子有机物高分辨率质谱数据集	17.133	余欢
11	10.3974/geodb.2019.06.04.V1	中国典型暖温带木本植物展叶和开花始期历年格网数据集	17.133	戴君虎
12	10.3974/geodb.2019.05.17.V1	三江源及其毗邻地区公里网格降水数据集 (2009-2013)	16.702	蒋育昊
13	10.3974/geodb.2020.03.10.V1	中国国家生态屏障区1-km分辨率植被净初级生产力数据集 (2000-2015)	16.676	王晓峰
14	10.3974/geodb.2020.04.08.V1	基于高分辨率影像和地形解译的黄土高原滑坡数据库	16.478	胡胜
15	10.3974/geodb.2021.03.01.V1	山东禹城站观测节点日平均叶面积指数数据集 (2020)	16.272	李若溪
16	10.3974/geodb.2021.05.09.V1	盐池滩羊花马池镇干草原生境保护与可持续发展案例数据集	16.26	张明鑫
17	10.3974/geodb.2021.05.10.V1	保山咖啡新寨村干热河谷生境保护与可持续发展案例数据集	16.26	段如婷
18	10.3974/geodb.2021.06.06.V1	丰县牛蒡古黄河泛区生境保护与可持续发展案例数据集	16.136	姚凤腾*
19	10.3974/geodb.2021.12.43.V1	从化荔枝江埔街亚热带低山丘陵生境保护与可持续发展案例数据集	16.136	王晋年
20	10.3974/geodb.2021.12.44.V1	禹城麦谷两熟房寺引黄灌区生境保护与可持续发展案例数据集	16.136	王振波
21	10.3974/geodb.2021.12.46.V1	磐石大榛子富太镇低山丘陵生境保护与可持续发展案例数据集	16.136	戴君虎
22	10.3974/geodb.2021.04.06.V1	武汉东湖水域变化数据集 (1990-2020)	15.67	刘小琼

Comprehensive Data Impact Score – *CDIS* for stakeholders



4. Practice and Impact in using data license for SDGs in local societies



Geographical Society of China
IGSNRR/CAS collaborated with about 40
Organizations initiated the
**Geographical Indications
Environment & Sustainability (GIES)
2021-2030 Program in 2021**

Focused on data driving SDGs
in local society based on the local
cases (village or county) and concept of
Geo-bio-eco-socio-culture diversities

17 cases were delivered

Panshi Rice Lanjia Village Case Dataset on Permanent Basic Farmland Protection and Sustainable Development

FU Jingying¹ DU Xinglin² ZHENG Qingsong³ QIAO Yunbo⁴ YAN Shi⁵
 ZHU Xiaoguang⁶ SUN Huiyan⁷ GU Yuebao⁵ FU Yongjun⁵

¹ Institute of Geographical Sciences and Natural Resources Research, Chinese



Figure 13 The ground-based observatory was completed in March 2021

Figure 14 Real-time landscape images observed by the ground-based observatory in September 2021

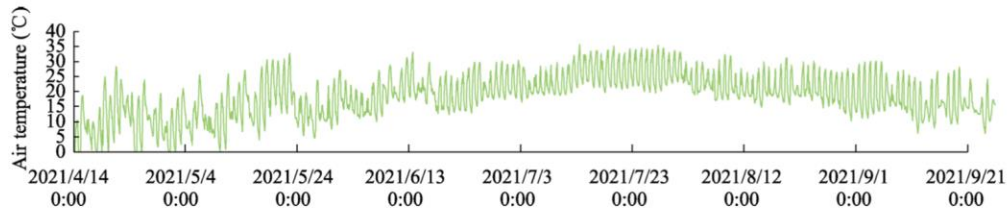


Figure 15 Real-time ecological environment data observed by the ground-based observatory from April 2021 to December 2021 (Temperature)

Figure 2: Location of observation station in case study area and example of rice production

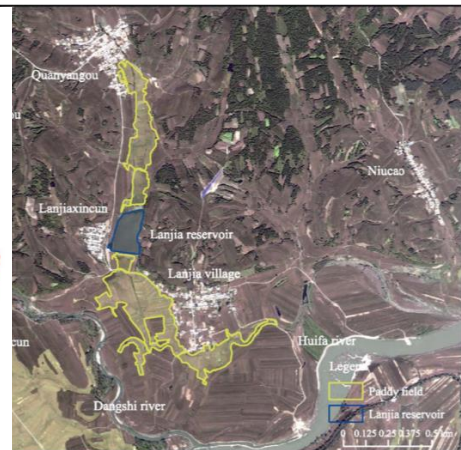
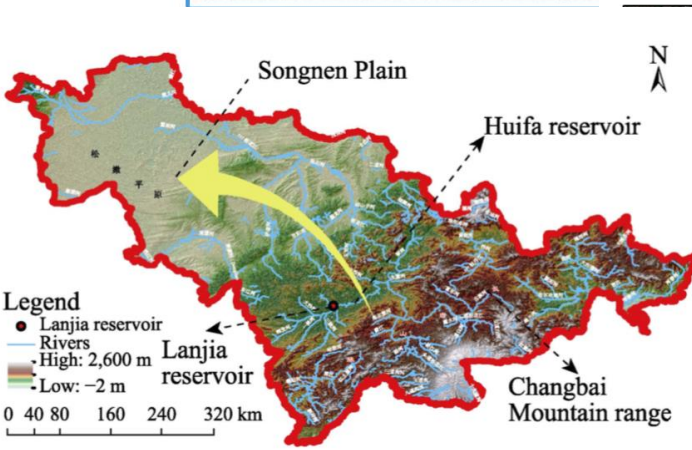


Table 4 Major water chemicals of Lanjia reservoir

Elements	Sample 1	Sample 2	Sample 3	Standard for urban drinking water supply	Sanitary standard for drinking water
Al (mg/L)	0.149,4	0.157,6	0.134,4	0.2	0.05
As (mg/L)	0.007,5	0.008,5	0.008	0.01	0.05
B (mg/L)	0.018,1	0.018,2	0.018	0.5	—
Ba (mg/L)	0.058,8	0.059,6	0.060,6	0.7	—
Ca (mg/L)	51.97	53.82	53.61	—	—
Cd (mg/L)	0	~	~	0.01	0.01
Co (mg/L)	0.000,1	—	—	—	—
Cr (mg/L)	0.001	—	—	—	—
Cu (mg/L)	0.002,1	—	—	—	—
Fe (mg/L)	0.103,7	—	—	—	—
K (mg/L)	7.564	—	—	—	—
Li (mg/L)	0	—	—	—	—
Mg (mg/L)	15.6	—	—	—	—
Mn (mg/L)	0.065,6	—	—	—	—
Mo (mg/L)	0.000,5	—	—	—	—
Na (mg/L)	17	—	—	—	—
Ni (mg/L)	0.000,6	—	—	—	—
P (mg/L)	0.233,6	—	—	—	—
Pb (mg/L)	0	—	—	—	—
Se (mg/L)	0.005,8	—	—	—	—
SiO ₂ (mg/L)	9.016	—	—	—	—
SO ₄ ²⁻ (mg/L)	55.32	—	—	—	—
Sr (mg/L)	0.307,9	—	—	—	—
V (mg/L)	0.013,5	—	—	—	—
Zn (mg/L)	0.002,8	—	—	—	—

Table 3 Soil element contents in the case study area

Heavy metal types	Surface soil of ridge	Surface soil of paddy field 1	Surface soil of paddy field 2	Mountain soil near arable land
Al (mg/kg)	49,535.00	71,815.00	47,590.00	53,810.00
Ba (mg/kg)	517.05	498.85	490.90	506.70
Ca (mg/kg)	3,834.00	5,486.00	3,237.00	5,358.00
Co (mg/kg)	20.78	19.93	19.09	19.59
Cu (mg/kg)	32.15	28.50	26.47	16.78
Fe (mg/kg)	34,380.00	34,085.00	32,220.00	24,600.00
K (mg/kg)	23,280.00	20,930.00	20,180.00	19,660.00
La (mg/kg)	22.35	32.73	29.22	30.04
Li (mg/kg)	32.40	34.45	35.82	27.91
Mg (mg/kg)	6,700.50	7,254.50	6,901.00	6,039.00
Mn (mg/kg)	833.85	443.25	517.60	680.20
Na (mg/kg)	11,780.00	10,840.00	10,280.00	12,560.00
Ni (mg/kg)	41.42	41.17	34.86	30.38
P (mg/kg)	851.95	725.85	659.40	554.20
Sc (mg/kg)	5.91	10.25	7.19	7.95
Sr (mg/kg)	64.26	102.45	64.15	114.80
Ti (mg/kg)	4,385.00	4,802.00	4,592.00	4,766.00
V (mg/kg)	87.61	85.37	84.26	74.62
Zn (mg/kg)	84.43	75.06	82.18	68.39

Table 7 Trace elements of rice products in Lanjia village (*Jihong 6*)

Elements	Rice sample 4	Rice sample 5	Elements	Rice sample 4	Rice sample 5
Al (mg/kg)	20.07	10.47	Mn (mg/kg)	22.10	20.74
B (mg/kg)	6.07	4.57	Mo (mg/kg)	0.37	0.34
Ba (mg/kg)	0.36	0.30	P (mg/kg)	854.00	829.50
Ca (mg/kg)	81.41	74.52	Sr (mg/kg)	0.15	0.12
Cu (mg/kg)	3.17	3.11	Ti (mg/kg)	3.50	3.95
Fe (mg/kg)	60.78	34.25	V (mg/kg)	0.06	0.07
K (mg/kg)	781.69	737.17	Zn (mg/kg)	15.25	14.75
Mg (mg/kg)	242.76	224.52			



4. Practice and Impact in using data license for SDGs in local societies



Crested Ibis (*Nipponia nippon*) Habitat in Caoba Village, Yang County, Shaanxi Province of China
Only 7 were found in 1981, now there are more than 7,000 Crested Ibis , in which about half of them in Yangxian now



Food and Agriculture Organization of the United Nations

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Regional Knowledge Platform on One Country One Priority Product (OCOP) in Asia and the Pacific

Geographical Indications Environment & Sustainability (GIES): An innovative initiative to promote scientific research for balanced development

15/08/2022 ,



Thank You !