Supplementary Material

# Supplementary Tables

The supplemental section presents two extended tables of the open-access datasets and initiatives referenced in this article. Table S1 refers to a selected inventory of open-access datasets and initiatives, and a summary figure S1 for the information. While Table S2 compiles the list of datasets used for the rice and cassava initiatives with its corresponding summary figure S2.

**Table S1.** Inventory of selected open-data sources for agriculture

Products that present dataset information are in the *databases* category. The *repositories* section presents those initiatives that store and organize diverse research products and *platforms* are those initiatives that try to link multiple institutions to maximize attainable benefits from open-data use in agriculture.

| Open-data initiatives | | Topics | Brief description | Year of creation | Leading institutions | Accessible URL |
| --- | --- | --- | --- | --- | --- | --- |
| *Agricultural databases* | | | | | | |
|  | FAOSTAT (formerly AGROSTAT) | Agriculture | This is the most comprehensive repository of national agricultural statistics, composed of 80 datasets for 245 countries since 1961. It encompasses 15 domains among production, trade, prices, food security, emissions, investments, forestry, and other topics related to food and agriculture. | 1986 | FAO | [http://www.fao.org/faostat/en/](about:blank) |
|  | European Food Prices Monitoring Tool | Agriculture | This is a tool for price and market monitoring of agricultural commodities developed by the European Union. | 2008 | European Statistical Office | [https://ec.europa.eu/growth/sectors/food/competitiveness/prices-monitoring\_en](about:blank) |
|  | Food Price and Monitoring Analysis - FPMA | Agriculture | This tool presents monthly and weekly information on wholesale and retail prices at the national level for 87 countries as well as international reference prices for various commodities. | 2010 | FAO | [http://www.fao.org/giews/food-prices/price-tool/en/](about:blank) |
|  | Agricultural Market Information System - AMIS | Agriculture | This is an inter-agency platform that analyzes global food supplies of major commodities in 28 countries. | 2011 | FAO | [http://www.amis-outlook.org/](about:blank) |
|  | Agricultural Incentives Consortium - AgIncentives | Agriculture | This is a collaborative network that provides a consolidated database of policies and indicators to analyze the impact of measures implemented at different levels around the world. | 2013 | CGIAR | [http://www.ag-incentives.org/](about:blank) |
|  | Global Agricultural Information Network - GAIN | Agriculture | This was developed by USDA's Foreign Agricultural Service. It provides reports on foreign agricultural markets, crop conditions, and policy dynamics of interest to U.S. agriculture. | 2019 | USDA | [https://gain.fas.usda.gov/](about:blank) |
|  | Agri-food Data Portal | Agriculture | This presents data on European agriculture and the Common Agricultural Policy (CAP), proposing a set of indicators to assess the impact of CAP in the region. | n.a. | European Commission | [https://agridata.ec.europa.eu/extensions/DataPortal/home.html](about:blank) |
|  | EUROSTAT | General | This has a section with information on agriculture for the European Union, compiling seven databases as well as a set of publications, legislation, projects, and various visualization functionalities. | 2004 | European Statistical Office | [https://ec.europa.eu/eurostat](about:blank) |
|  | World Bank Data | General | This presents macroeconomic indicators related to diverse economic sectors, among which agricultural and rural development data are presented. | 2010 | World Bank | [https://datacatalog.worldbank.org/](about:blank) |
|  | Organization for Economic Co-operation and Development Data | General | This has a page dedicated to agriculture, with data related to agricultural output, agricultural policy, fisheries, and sustainable agriculture for OECD member countries and some partners. | 2014 | Organization for Economic Co-operation and Development (OECD) | [https://data.oecd.org/](about:blank) |
|  | AgBase | Genomic | This is a curated open source for functional analysis of agricultural plant gene products. | 2006 | University of Arizona | [https://agbase.arizona.edu/](about:blank) |
|  | Gramene | Genomic | This integrates data resources for comparative functional genomics in different crop species. | 2006 | Cold Spring Harbor Laboratory | [http://www.gramene.org/](about:blank) |
|  | COMTRADE | Trade | This is a dissemination system that compiles detailed trade data from United Nations country members on merchandise trade, including all kinds of agricultural commodities sorted by category and by trading partner. | 2003 | United Nations | [https://comtrade.un.org/](about:blank) |
| *Agricultural bibliographic repositories* | | | | | | |
|  | International System for Agricultural Science and Technology - AGRIS | Agriculture | This is a platform that provides free access to more than 12 million records on publications in up to 90 different languages, including 4,200 datasets, from organizations that have joined the initiative. | 2013 **(a)** | FAO | [http://www.fao.org/agris/es](about:blank) |
|  | Global Agricultural Research Data Innovation & Acceleration Network - GARDIAN | Agriculture | This allows and enables users to find, visualize, and analyze data coming from CGIAR institutions and their partners. | 2017 | CGIAR | [https://gardian.bigdata.cgiar.org/](about:blank) |
|  | Agricultural On-Line Access - AGRICOLA | Agriculture | This is a database from which bibliographic information from the USDA's National Agricultural Library Catalog can be accessed. | n.a. | USDA | [https://agricola.nal.usda.gov/](about:blank) |
|  | Food Security Portal | Agriculture | This focused mainly on the development of production, stock, and price alert systems for major commodities, and news coverage and reports on food crises, among other products that aim at creating more resilient food systems. | 2010 | CGIAR | [https://www.foodsecurityportal.org/](about:blank) |
|  | United States Department of Agriculture Ag Data Commons | Agriculture | This is a catalog and data repository containing 3,130 open-access agricultural datasets from USDA-funded research data around the world. | 2015 | USDA | [https://data.nal.usda.gov/](about:blank) |
|  | USDA Open Data Catalog | Agriculture | This is a comprehensive list of publicly available data from the USDA and related institutions. | 2018 | USDA | [https://www.usda.gov/content/usda-open-data-catalog](about:blank) |
|  | Publications and Tools: | Agriculture | This presents more than 450 open-access datasets for various countries, in addition to 50 tools with different functionalities for the analysis and visualization of the data presented. | n.a. | CGIAR | [https://www.ifpri.org/publications](about:blank) |
|  | Policy Support and Governance Gateway | Agriculture | This contains an open-access repository of tools and publications, including datasets, to support the formulation, implementation, and monitoring of agri-food policies. | n.a. | FAO | [http://www.fao.org/policy-support/en/](about:blank) |
|  | Dataverse | General | An open-data repository to share, archive, cite, access, and explore research data around the world. It provides support and infrastructure in data management for researchers, journals, institutions, and developers. | 2006 | Harvard University | [https://dataverse.harvard.edu/](about:blank) |
|  | Germplasm Resources Information Network - GRIN | Genomic | This presents a large repository of searchable databases of curated plant, animal, and microbial germplasm data. | 2015 | USDA | [https://www.ars-grin.gov/](about:blank) |
|  | AgBioData | Genomic | This is presented as a consortium of integrated agricultural biological databases and associated genomic, genetic, and breeding data resources. | 2018 | USDA | [https://www.agbiodata.org/](about:blank) |
|  | EarthStat | Geographic | This brings together open datasets of spatial information for agricultural development. | 2015 | University of British Columbia and University of Minnesota | [http://www.earthstat.org/](about:blank) |
|  | GeoNetwork | Geographic | This offers an extensive repository of geospatial information at different levels, including global thematic datasets. | 2020 | FAO | [https://geonetwork-opensource.org/](about:blank) |
|  | Crop Condition and Soil Moisture Analytics - Crop-CASMA | Geographic | This is a web-based geospatial application that presents soil moisture and vegetation index data for the United States derived from NASA's SMAP and MODIS missions. | 2021 | USDA, NASA, George Mason University | [https://nassgeo.csiss.gmu.edu/CropCASMA/](about:blank) |
| *Platforms for open data* | | | | | | |
|  | Global Open Data for Agriculture and Nutrition - GODAN | Agriculture | This global platform has more than 1,000 members and aims to make agricultural data open by creating high-level policies and supporting its members in creating open data following good data management (FAIR) practices. | 2014 | McGill University | [https://www.godan.info/](about:blank) |
|  | GEMS Agroinformatic Alliance | Agriculture | This aims to support and integrate distributed genomic, environmental, management, and socioeconomic data into a single platform that can be freely accessed to search and download the contained datasets. | 2015 | University of Minnesota | [https://agroinformatics.org/](about:blank) |
|  | AGINFRA+ | Agriculture | This aims at developing data infrastructure to connect user communities around agriculture and food by exploiting already-developed e-infrastructure. | 2017 | Agroknow | [https://plus.aginfra.eu/](about:blank) |
|  | CGIAR Big Data | Agriculture | This was created to guide the generation of data within CGIAR centers and to integrate initiatives around big data by supporting partners and related institutions to create novel and scalable approaches for agricultural development. | 2017 | CGIAR | [https://bigdata.cgiar.org/](about:blank) |

Footnote: (a) AGRIS was established in 1974 but it was in 2013 that the improved version was released on the website.

**Figure S1.** Number of selecteda open-data sources and initiatives for agriculture.

**Panel a.** Timeline of establishment and categorization type.

Chart, bar chart

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**Panel b.** Categorized leading institutions.

Chart, treemap chart

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Footnote: a The selected list of open-data sources and initiatives appears in further detail in the supplemental material Table S1.

**Table S2.** Inventory of open-access datasets used for rice and cassava observatories

| FAIR points | Database | Brief description | Country data | Timeframe | Observatory application | Accessible URL |
| --- | --- | --- | --- | --- | --- | --- |
| 4.3 | FAOSTAT | FAOSTAT provides free access to food and agriculture data for more than 245 countries and territories and covers all FAO regional groupings from 1961 to the most recent year available. | World | 1961-2020 | 1. Production (yield, surface, production) 2. Context (surface, value of production) 3. Consumption - demand and diet composition (food balances, supply utilization accounts) 4. Prices (domestic prices, producer prices) | [http://www.fao.org/faostat/en/](about:blank) |
| 1.7 | Comtrade | Comtrade provides access to national-level trade data, including export and import in quantity and value for more than 100 countries. | World | 1962-2020 | Trade (trade flows over time) | [https://comtrade.un.org/data/](about:blank) |
| 0.9 | Trade Map | Trade Map provides access to national-level trade data, including export and import in quantity and value for around 220 countries. | World | 2001-2020 | Trade (trade flows over time) | [https://comtrade.un.org/data/](about:blank) |
| 4.1 | Household Size and Composition | This dataset presents a compilation of indicators on household size and membership composition, estimated using both tabulated data and household roster micro-data obtained from censuses and household surveys. | World (172 countries) | 1960-2018 | Household size | https://www.un.org/development/desa/pd/data/household-size-and-composition |
| 2.2 | GIEWS-FPMA | Global Information and Early Warning System - Food Price Monitoring and Analysis Tool | World (85 countries) |  | Prices | [https://fpma.apps.fao.org/giews/food-prices/tool/public/#/home](about:blank#/home) |
| 3.8 | Datos abiertos/Open data | Open data provides access to Colombian statistics on different topics. In particular, we took the municipal agricultural assessments (EVA) that include information related to national agricultural production. | Colombia | 2007-2018 | Production (disaggregated data on production, area, and yield) | https://www.datos.gov.co/ |
| 3.0 | Price information system (SIPSA) | SIPSA provides access to wholesaler prices for the main agricultural products in different markets as well as retailer prices for inputs associated with agricultural production and levels of supply in different cities of the country. | Colombia | 2013-2021 | Prices (disaggregated cassava prices) | https://www.dane.gov.co/index.php/estadisticas-por-tema/precios-y-costos/sistema-de-informacion-de-precios-sipsa#componente-abastecimiento |
| 0.3 | Fedearroz | It provides information related to the rice crop, including prices, production, area, and yield. | Colombia | 1980-2021 | Prices | http://www.fedearroz.com.co/new/precios.php |
| 2.5 | Agriculture, Livestock, and Other Statistics - Statistics of Agricultural Production | IBGE provides access to Brazilian statistics on different topics. In particular, agriculture, livestock, and other sections encompass economic-financial information on production, goods, and services consumed, and employment, among other aspects, specifically for the activities of agriculture, forestry, fishing, and aquaculture. | Brazil | 2006-2021 | Production (disaggregated data on production, area, and yield) | [https://www.ibge.gov.br/en/statistics/economic/agriculture-forestry-and-fishing.html](about:blank) |
| 2.5 | Agriculture, Livestock, and Other Statistics - Municipal Agricultural Production | IBGE provides access to Brazilian statistics on different topics. In particular, agriculture, livestock, and others sections encompass economic-financial information on production, goods, and services consumed, and employment, among other aspects, specifically for the activities of agriculture, forestry, fishing, and aquaculture.  **Should both of these IBGE rows be included? The only difference is in the first column and for the dates. The URLs and descriptions are the same.** | Brazil | 1974-2021 | Production (disaggregated data on production, area, and yield) | https://www.ibge.gov.br/en/statistics/economic/agriculture-forestry-and-fishing.html |
| 0.8 | CONAB | CONAB provides access to agricultural prices. | Brazil | 2014-2021 | Prices (disaggregated) | https://www.conab.gov.br/info-agro/precos |
| 0.8 | Integrated system of agricultural statistics (SIEA) - SEPA | SIEA provides access to six different datasets (SISAP, SISPIA, SISSIC, SEPGA, SEPA, SISCEX) related to agricultural data and to three apps (Agro Oferta, Agrochatea, Mi Caserita). | Peru | 1950-2020 | Production (disaggregated data on production, area, and yield) | [https://siea.midagri.gob.pe/portal/index.php/component/sppagebuilder/?view=page&id=18](about:blank) |
| 0.8 | Integrated system of agricultural statistics (SIEA) - SISAP | SIEA provides access to six different datasets (SISAP, SISPIA, SISSIC, SEPGA, SEPA, SISCEX) related to agricultural data and to three apps (Agro Oferta, Agrochatea, Mi Caserita). | Peru | 1997-2021 | Prices (disaggregated data on prices) | http://sistemas.midagri.gob.pe/sisap/portal2/ciudades/ |
| 0.8 | Office of Agricultural Studies and Policies (ODEPA) | ODEPA provides access to agricultural information such as prices and products and economic statistics. | Chile | 1980-2020 | Production (data on production, area, and yield) | https://www.odepa.gob.cl/estadisticas-del-sector/estadisticas-productivas; https://reportes.odepa.gob.cl/#/noticias-mercado/precios-consumidor |
| 0.8 | Office of Agricultural Studies and Policies (ODEPA) | ODEPA provide access to agricultural information such as prices and products and economic statistics. | Chile | 2008-2021 | Prices | https://www.odepa.gob.cl/estadisticas-del-sector/estadisticas-productivas; https://reportes.odepa.gob.cl/#/noticias-mercado/precios-consumidor |
| 2.6 | Datos abiertos/Open data | Open data provides access to Paraguayan statistics on different topics. In particular, we took the historical crop series that includes information related to national agricultural production. | Paraguay | 2007-2019 | Production (Disaggregated data on production, area and yield) | https://www.datos.gov.py/dataset/serie-hist%C3%B3rica-cultivo-por-rubro |
| 2.9 | National statistics -Agriculture | INE provides access to Bolivian statistics on different topics. In particular, the agriculture section includes censuses and national survey data. | Bolivia | 1984-2020 | Production (disaggregated data on production, area, and yield) | https://www.ine.gob.bo/index.php/estadisticas-economicas/agropecuaria/agricultura-cuadros-estadisticos/ |
| 2.4 | OpenSTAT - Agriculture, Forestry, Fisheries | OpenSTAT is an open-data platform powered by PC-Axis, a user-friendly application with versatile possibilities for presenting statistical tables with visualization features. The databases presented highlight the statistics generated and compiled by the PSA at the national and sub-national levels. | Philippines | 1990-2019 | Production (disaggregated data on production, area, and yield) | https://openstat.psa.gov.ph/PXWeb/pxweb/en/DB/DB\_\_2E\_\_CS/?tablelist=true&rxid=bdf9d8da-96f1-4100-ae09-18cb3eaeb313 |
| 1.8 | ESPAC | This is the main information source of the agricultural sector. It includes data on area for 52 products and cattle, birds, and employment. | Ecuador |  | Production (disaggregated data on production, area, and yield) | https://www.ecuadorencifras.gob.ec/estadisticas-agropecuarias-2/ |
| 0.8 | SIPA | SIPA is the Public Agricultural Information System of Ecuador. It is an integrated statistical and geographical information service, which serves as an input for decision-making in the agricultural sector. In addition, it allows generating scientific-academic knowledge in the area and exposes the situation of the country in agriculture. | Ecuador |  | Prices (disaggregated) | http://sipa.agricultura.gob.ec/index.php/sipa-estadisticas/estadisticas-economicas |
| 1.3 | Publications -Harvested and planted area of rice, maize, and beans | INE provides access to Panamanian statistics on different topics. | Panama | 2002-2020 | Production | [https://www.inec.gob.pa/publicaciones/Default2.aspx?ID\_CATEGORIA=4&ID\_SUBCATEGORIA=11](about:blank) |
| 0.3 | CONARROZ |  | Costa Rica | 2010-2020 | Production | [https://conarroz.com/estadisticasarroceras.php](about:blank) |
| 3.8 | Agro-industrial data | This platform provides data on the agricultural sector and related topics. | Argentina |  | Production | [https://datos.magyp.gob.ar/dataset/estimaciones-agricolas](about:blank) |
| 0.3 | Agro-industrial data | This platform provides data on the agricultural sector and related topics. | Argentina | 1992-2021 | Prices (rice local prices) | [https://www.magyp.gob.ar/sitio/areas/ss\_mercados\_agropecuarios/areas/regionales/index.php](about:blank) |
| 0.8 | Agricultural statistics | This provides access to agricultural data. | Dominican Republic | 2002-2020 | Production (data on production, area, and yield) | [http://agricultura.gob.do/category/estadisticas-agropecuarias/siembra-cosecha-produccion-y-rendimientos/](about:blank) |
| 0.8 | Agricultural statistics | This provides access to agricultural data. | Dominican Republic | 2010-2021 | Prices | [http://agricultura.gob.do/category/estadisticas-agropecuarias/precios-de-productos-agropecuarios/](about:blank) |
| 2.5 | SIAP | This platform provides data on the agricultural sector and related topics. | Mexico | 1980-2020 | Production (disaggregated data on production, area, and yield) | https://www.gob.mx/siap/acciones-y-programas/produccion-agricola-33119 |
| 0.8 | SIAP | This platform provides data on the agricultural sector and related topics. | Mexico | 1998-2015 | Prices | https://w6.siap.gob.mx/comercio/siim/frutasyhortalizas/consulta\_nacional\_mensual.gobmx.php |
| 3.2 | Agricultural National Survey | This survey generates information for agricultural and forestry crops, flowers, and cattle and pigs. For agricultural, forestry, and flower activities, annual estimates are generated on planted area, harvested area, production, and production destinations, among other variables of interest. | Costa Rica |  | Production | https://www.inec.cr/encuesta-nacional-agropecuaria |
| 0.3 | Rice Survey |  | Uruguay |  | Production | https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/datos-y-estadisticas/estadisticas/diea-presento-resultados-encuesta-arroz-2020 |

**Figure S2.** FAIR measures for open-access datasets used for rice and cassava observatories.a

**Timeline

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Footnote: a The complete table of open-access datasets is presented and described in further detail in the supplemental material Table S2.

# Supplementary Documentation

The supplemental documentation S3 presents the Open-Data Policy used with the observatories’ partners.

**S3 Data Management Policy for the *Crop Observatories***

**Preamble**

This document describes the Data Management Policy for the *Crop Observatories*, created between the International Center for Tropical Agriculture (CIAT), part of the Bioversity International-CIAT Alliance since January 1, 2020, which, in the operational part, is represented by the Performance, Innovation and Strategic Analysis for Impact (PISA4Impact) program and that, in this document, serves as the ''Recipient,'' and third parties that wish to be members of the observatories and that are referred to in this Policy as ''Third-Party Providers'' or ''Third-Party Suppliers.''

The observatory is an initiative led by CIAT, part of the Bioversity International-CIAT Alliance (hereinafter referred to as the "Alliance"), which has established an information system that provides data related to crop production contexts. It includes data related to the context of the crop sector in each country and at the regional level, including indicators on production systems, trade, competitiveness, consumption, and quality. The observatory also has a repository of tools developed by CIAT and inventories of policies and incentives in the sector, crop-related technologies, crop news, quality standards, and agronomic indicators for the region. The *Crop Observatories* are a web platform managed by CIAT, as a member of the Alliance, that provide data for the benefit of key stakeholders in the crop sector.

This Third-Party Data Management Policy for the observatories is intended to regulate the observatories’ relationship with Third-Party Providers, which should be interpreted on the basis of the provisions of the Third-Party Data Management Policy for the *Crop Observatories*.

The Third-Party Providers are the holders and owners of the information they provide to the observatory in relation to crop cultivation, and/or they have control over such information, hereinafter referred to as Data collected through survey methods or other sources, and they approve that such Data be treated in accordance with this Policy.

CIAT, a member of the Alliance, as Recipient has the Performance, Innovation and Strategic Analysis for Impact (PISA4Impact) program that has the technical and scientific capabilities for data processing, storage, safekeeping, and analysis. As such, you agree that such activities with the Data, as well as the disclosure or communication of the Data, will be carried out in accordance with the terms of this Policy.

The Third-Party Provider agrees to the following terms regarding the handling of data for the Rice Observatory:

**1. Definitions**

a. **Author**. The natural person (natural) who performs the intellectual creation of a literary, or artistic, or technical-scientific nature.

b. **Database**. Organized set of, or repository of, Data or sets of Data of a scientific nature (quantitative and qualitative) and of any other that are subject to analysis and processing, which are indexed and whose content can be accessed, analyzed, and managed.

c. **Data**. Two categories are included: (i) Raw Data, which include numbers, characters, and values of qualitative and quantitative variables related to an item, which are directly generated or captured during research, development, or any kind of activities, and through any means; and (ii) Processed Data, which include Data aggregated, interpreted, annotated, or otherwise analyzed, maintained or stored in any format. Processed Data are also considered Information, since the data acquire meaning.

d. **Personal Data**. Data that allow the identification of a person or a group of persons.

e. **Confidential Data**. Data of any kind that are not public by their nature, by decision of the disclosing Party, including each one of the Suppliers, or by mutual decision of the Parties require a special treatment or need to be conditioned to certain handling characteristics for their disclosure, and may not be distributed, shared, or communicated to third parties, along with data that are not directly authorized for their processing. Such Data may correspond to Personal Data protected by privacy laws operating in multiple countries and may incorporate Sensitive Data. In all cases, Sensitive Data are Confidential Data. However, not all Confidential Data are Sensitive Data. Sensitive Data are Personal Data revealing racial and ethnic origin; political opinions; religious, philosophical, or moral convictions; trade union membership; and information concerning health or sex life.

f. **Moral Rights**. These are those held by the authors of a work and that are perpetual, unwaivable, and inalienable. Patrimonial rights are the rights recognized by the state to the owner of intellectual property rights. In relation to copyrights, such rights include the exclusive power to perform, authorize, or prohibit acts such as reproduction, public communication, translation, adaptation, arrangement or any other modification, public distribution of copies, importation of illegal copies, or any kind of exploitation of the work by any means known or to be known.

g. **Data Processor**. This is a natural or legal person, public or private, who by himself or in association with others carries out the Processing of the Data provided by the Data Controller and does so on behalf of the latter.

h. **Data Controller**. This is a natural or legal person, public or private, that by itself or in association with others decides on the Database and/or the processing of the Data.

i. **Copyright**. Intellectual property rights applicable to literary or artistic works or products that exist automatically from the moment of creation or the first public exhibition of such work, of determined duration and that are held by the author and recognized by the state to such creator.

j. **Holder**. This is a natural or legal person, public or private, owner of the Data.

k. **Processing**. Any operation or set of operations on or with the Data, including the collection, use, processing, circulation, or deletion.

**2. Third-Party Supplier Responsibilities**

a. The Third-Party Provider certifies that it is the Data Subject or that it has control over the Data to be delivered or transferred to the Recipient. The Third-Party Provider is and shall remain the Data Subject, as applicable, and no Processing of such Data shall alter this fact.

b. The Third-Party Provider certifies that it delivers or transfers the Data freely to the Recipient and that it has the right to and is authorized to make such transfer of Data to the Recipient.

c. The Third-Party Provider has the right to define whether or not the Data to be transferred to the Recipient are publicly accessible.

d. The Third-Party Provider shall inform about the nature of the Data to the Recipient, explicitly stating and marking whether it is Personal and Sensitive and/or Confidential Data. The Recipient will provide a list of the variables collected in surveys and other sources so that the Third-Party Provider defines the data that will be publicly accessible and their nature.

e. In case of transferring Personal Data or Sensitive Data, the Third-Party Provider shall certify that it has acquired the corresponding prior authorization from the Data Subject for the Processing of such Data by the Recipient for the purposes of the Rice Observatory. The Third-Party Provider shall keep a record of such prior authorizations and shall be able to provide proof of such authorizations if requested by the Recipient.

f. The Third-Party Supplier shall provide the necessary Data agreed with the Recipient in the most complete, up-to-date, and accurate manner possible to be made available to the Observatory, including additional or supplementary information when necessary.

g. The Third-Party Provider shall act as the Data Controller to the extent that together with the Recipient it decides and approves the Processing to be given to the Data delivered to the Recipient.

h. The Third-Party Provider grants the Recipient the right to use the Data on a non-exclusive, worldwide, royalty-free basis in accordance with the terms of this Policy.

**3. Recipient Responsibilities**

a. The Recipient as Processor undertakes to use the non-public Data for the development of the Rice Observatory. For any other use, the Recipient will require prior written permission from the Third-Party Provider.

b. The Recipient will not redistribute or publish the Data received from the Third-Party Provider in any way unless the parties by mutual agreement and in writing so decide.

c. The Recipient shall treat and maintain as confidential all information or Data provided by the Third-Party Provider marked as such. The Treatment of Confidential Data, Personal Data, and Sensitive Data shall be in accordance with their confidential nature in terms of use, storage, transmission, publication, and disposal or final disposition.

d. The Recipient may supplement the Data necessary for the Rice Observatory from various available bibliographic sources or databases such as national statistics, news, international organizations, scientific studies, and other sources. These Data shall not be subject to prior permissions for use by the Third-Party Data Providers and may be used by the Recipient for any purpose in accordance with its guidelines and strategy for research, development, and dissemination of results for agriculture.

e. In the event that the Third-Party Provider is from a country where there is a member or members of FLAR, such member or members of FLAR shall be informed in writing of the entry of the Third-Party Provider through the Executive Director of FLAR.

**4. Responsibilities of the Parties**

a. Both Parties shall make Data available on a regular basis between them for the proper development of the activities contemplated under the Rice Observatory.

b. Unless otherwise agreed in writing, both Parties shall maintain due confidentiality on Raw or Processed Data and on the results obtained with the Data if so stipulated by the Supplier or by mutual agreement between the Parties. However, the Parties agree that the main objective is to widely disseminate information obtained with the Data Processing through the Rice Observatory.

c. Both Parties agree to widely disseminate and socialize the results obtained through various means for the main benefit of rice cultivation and production.

**5. Intellectual Property and Intellectual Property Management**

a. The Parties agree that the Data prior to or collected or generated independently of the activities under the Rice Observatory and transferred or exchanged by the Parties shall remain the property of the providing Party or shall remain under the control of the providing Party.

b. In the event of using third-party Data, whether Personal Data of Data Holders or Data collected or acquired from third-party sources, the Parties shall ensure that they comply with the copyrights that apply to such Data and that they have the necessary permissions for their use.

c. The Parties undertake to disseminate and publish information resulting from Data Processing as widely as possible, following the CGIAR Open Access Policy, observing confidentiality as necessary.

d. The Parties shall give due credit to the authors of information products generated with the Data and shall safeguard the Moral Rights thereof. They shall also give credit to information providers as part of the acknowledgments. Authorship must follow accepted standards in the field. Honorary authorship, where the person participates only by providing or transferring Data, financing research, supervising a work team, or critically reviewing a work, without participating in the analysis, development, or creation of an information product, shall not be used in any way.

e. The Proprietary Rights of the Copyrights on the results that are obtained or may be derived from the Processing of the Data shall belong to the Party that carries out such Processing. Such Party owning the Proprietary Rights shall have the first right to publish the results obtained from the Data Processing.

f. The Party owning the Proprietary Rights on the Copyrights shall grant to the other Party a license on the result or results protected by such rights for research, development, and training purposes outside the Rice Observatory, including in collaboration with third parties. The Parties agree to negotiate a commercial license according to the circumstances and in case the non-owner Party requires such use.

**6. Duration and Early Termination**

a. The terms of this Policy shall commence upon signature by the Parties and shall have a duration of five years from the last date of signature.

b. The Parties may terminate the participation of the Third-Party Supplier unilaterally by means of a written communication sent to the communications address indicated in numeral 9 of this document.

c. The Parties may decide whether they wish to renew the validity of this policy by written notice from the other Party six calendar months prior to the expiration of the five-year term. The renewal may be for any duration agreed between the Parties.

**7. Limitation of Liability**

Each Party shall be liable for its own acts and negligent omissions and those of its employees, contractors, agents, or officers in accordance with applicable law. The Parties expressly state that the terms under this Annex do not imply continued dependence between them, and do not constitute any labor relationship between them and the personnel that they individually assign to the execution of the same.

**8. Guarantees**

a. To the extent permitted by applicable law, the Parties provide the Data and all results and information products resulting from the Data Processing without warranties of merchantability, freedom from error, or completeness.

b. CIAT assumes no liability to third parties and is not responsible for any intellectual property rights disputes that may apply to the Data, information products derived therefrom, or products resulting from the possible application or commercial exploitation that may be carried out by the Supplier or the Suppliers with the results of the Data Processing or by implementing such results.

**9. Notifications and Communications**

For all events, notifications or communications between the Parties shall be made by any suitable means, such as e-mail, certified mail, or courier with date of receipt. Any change of address shall be notified in writing to the other Party. For all legal effects, the contractual domicile shall be the city of Palmira, Valle, Colombia, and notifications shall be received by the Parties at the following addresses:

Supplier

Address:

Telephone:

E-mail

Receiver:

Address:

Phone:

E-mail:

**10. Dispute Resolution**

This agreement shall be governed by the General Principles of International Law, including the UNIDROIT International Principles of Commercial Contracts 2016. Any dispute relating to the interpretation or performance of the agreement shall first be discussed and resolved amicably by the Parties. In the event of failure to resolve the situation, the dispute shall be settled by arbitration, which shall be conducted in accordance with the arbitration rules of the Conciliation and Arbitration Center of the Cali Chamber of Commerce, in the city of Cali, by a single arbitrator appointed by said Center for such purpose. The Parties shall accept the decision of the arbitration as final.

For the record, the Parties sign this Policy on the date and place indicated at the bottom of the respective signatures.

For CIAT

CIAT-Colombia Legal Representative

Date:

Palmira, Colombia

Witnesses