

Pacific Data Hub

Store once, publish many

SDMX GLOBAL CONFERENCE



October 2023

The Pacific Data Hub programme



The Pacific Data Hub, generally abbreviated « PDH », is a program aiming to improve access to Pacific data. It includes a series of deliverables related to document and data accessibility and also some activities in the area of outreach and capacity-building.



Data Catalogue - an open data repository which manages and publishes all data in the Pacific Data Hub. It is the central component which links to **PDH.stat** and the **Microdata Library**; Most spatial datasets in the Data Catalogue can be visualised with **PacificMap**



PacificMap - a geospatial data exploration tool providing easy-to-use map-based visualisation of spatial data;



PDH.stat - indicator database explorer which contains the 132 Pacific Sustainable Development Indicators (SDGs) as well as a range of economic, health, demographic and environmental datasets (replaces National Minimum Development Indicator Database - NMDI)



Microdata Library - online census and survey documentation and archiving application which also provides access to microdata for some collections.

Improving the statistical business process



- Data products are **specified explicitly** using standard metadata (SDMX)
- Data products are designed as multi-dimensional data cubes i.e. large **multipurpose tables** rather than one-size-fits-all products

From metadata, a data collection **template** (Excel), **database** tables (PostgreSQL) and **output products** on .STAT are generated automatically (metadata-driven approach)

→ Separation of concerns between data collection and data dissemination

Templates offer a series of common functions out-of-the box:

- **Validate** against data structure
- **Compare** with previous version
- **Publish** to internal or public version of .STAT

→ Re-usable building blocks are domain independent

Data is stored in a reference database

- **Derived indicators** can be calculated automatically
- **Revision history** and update dates are recorded automatically

→ Single version of the truth principle

Data is directly available on a **wide range of dissemination channels**: .STAT data Explorer, PDH Data Catalogue, websites and dashboards, Excel, Power BI, statistical packages, ...

→ Collect once, re-use many times principle

Designed for a wide range of users

Graphical User Interface (GUI) - .STAT Data Explorer



Basic user

A powerful search engine allows finding quickly most common statistical tables



Advanced user

User-friendly interface to extract tailored information from voluminous data tables

Application Programming Interface (API) – SDMX Web-service



Statistician and Data Scientist

.Stat data is accessible directly from most popular data analysis software (Excel, Power BI, R, Python, Stata)



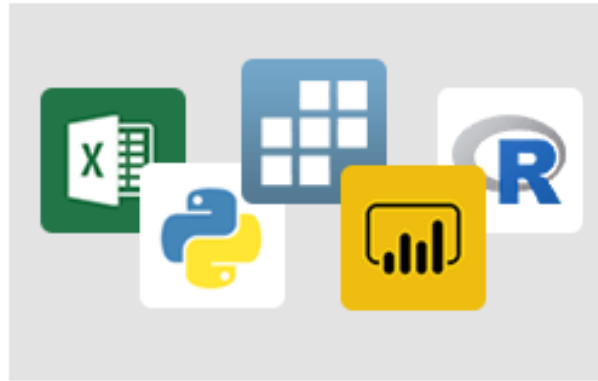
Web-developer and IT specialist

.Stat data can be included in any IT application using SDMX web services

Integrating .Stat Suite in a broader data experience



Data Explorer browser interface
You can view, query and download data directly from your internet browser

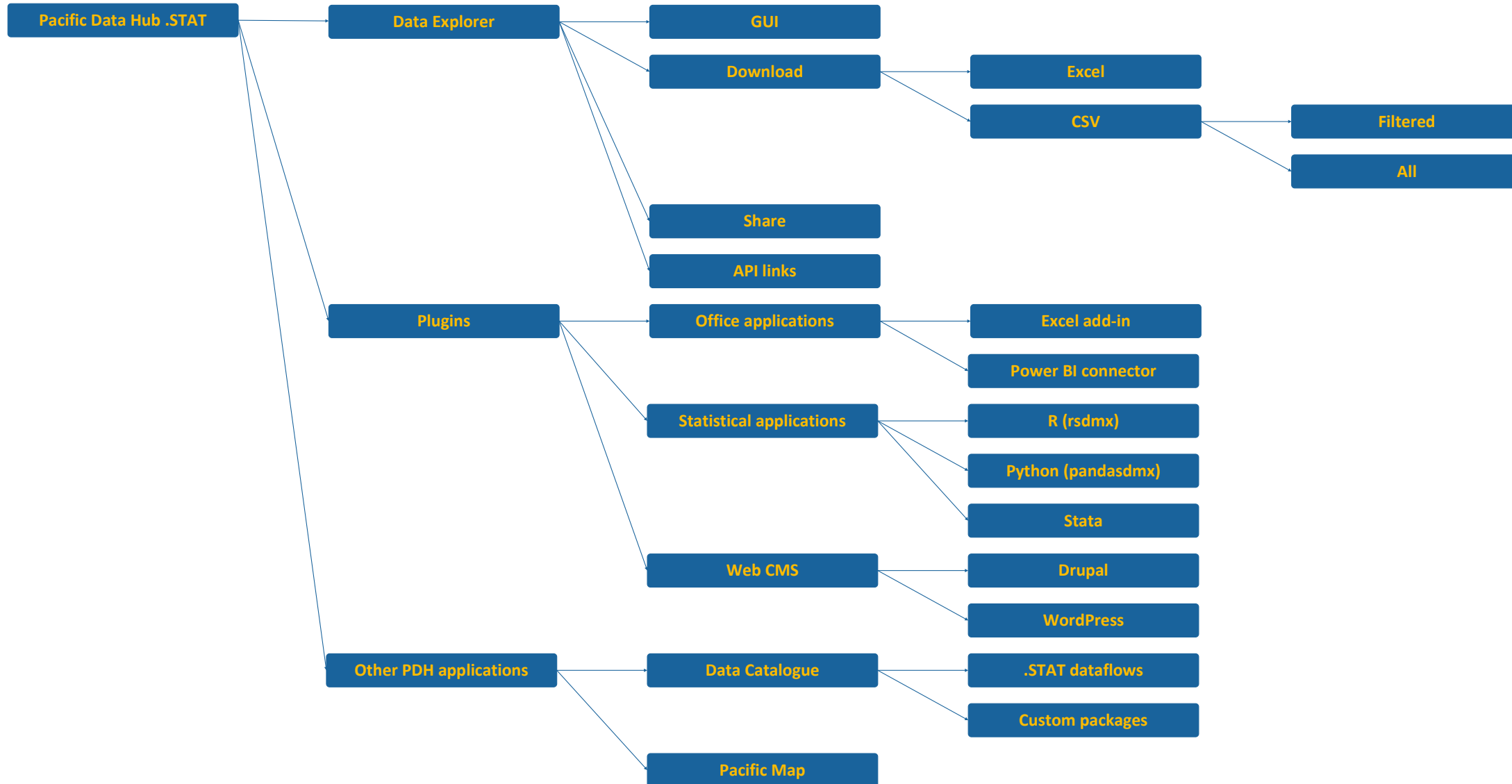


Plugins
Create a live connection between PDH.stat and your Excel Workbooks, Power BI reports, STATA, R or Python applications, etc.



SDMX .stat API
A Statistical Data and Metadata eXchange (SDMX) API for programmatically accessing and retrieving the full range of published data and indicators.

Store once, re-use many times: Overview of data access channels



Example: SPC's Statistics for Development Division website integration with Drupal plugins



Estimated Population
744,407
Solomon Islands, 2022

GDP per Capita (USD)
\$2,001
Solomon Islands, 2022

Visitors
737
Solomon Islands, 2022

Trade Balance (USD)
\$-31,026
Solomon Islands, 2021

STATISTICS BY TOPIC

- ECONOMY
- ENVIRONMENT
- HEALTH
- INDUSTRY & SERVICES
- POPULATION
- SOCIAL
- SDGS
- CRVS
- COVID

STATISTICS BY COUNTRY




POPULATION

Main Topics

- Economy
- Environment
- Health
- Industry and Services
- Population
- Social


Data provided include national population estimates and medium-term population projections up to 2050. These population estimates are calculated using information from population censuses and household surveys, civil registration and vital statistics.

Basic demographic statistics include national population numbers disaggregated by age and sex; age dependency and sex ratios; crude birth, death and migration rates; annual population growth rates, including rural and urban growth rates; and key demographic indicators such as fertility, mortality and migrations rates. Additional data, like more detailed vital statistics, can be found in the Pacific Data Hub Indicator Database (PDH.stat).


Related topics

- Demographic and health surveys
- Demography
- Education
- Household Income and Expenditure Surveys
- Population estimates and projections
- Households
- Population and Housing Censuses

3 - Good Health and Well-Being












POPULATION PYRAMID

Kiribati
Total population (2023): 124,738



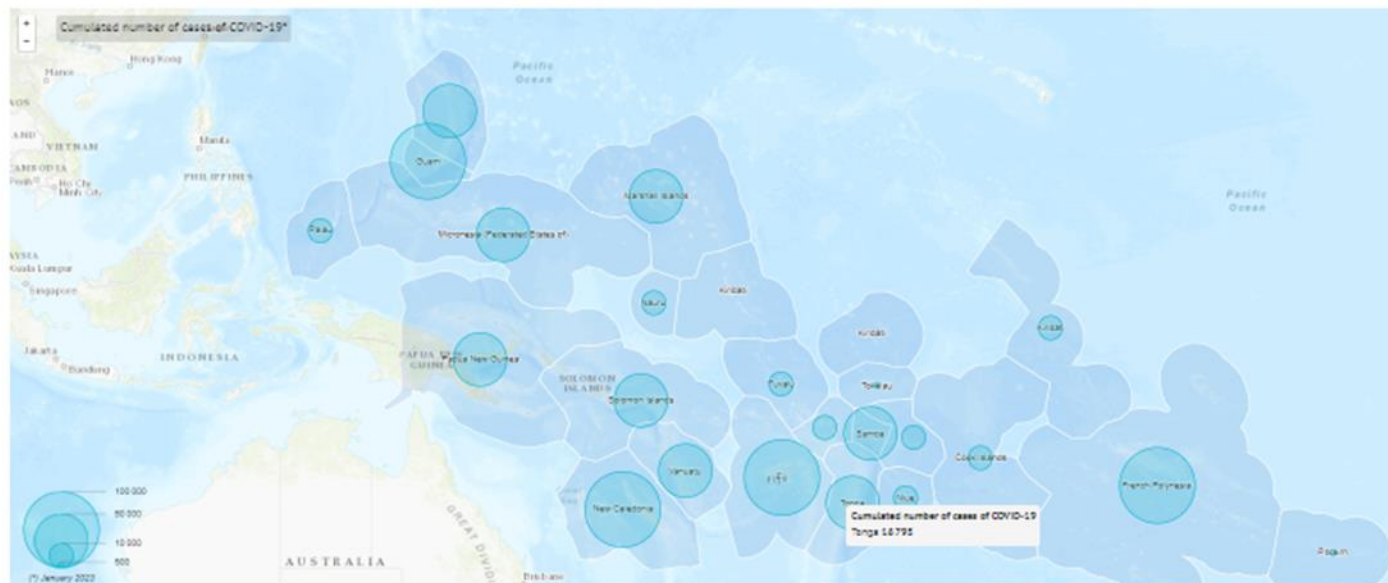
PDH.STAT DATASETS

- Coastal population (1, 5 and 10km from coast)
Proportion of population living in 1, 5 and 10km buffer zones for Pacific Island Countries and Territories [..]
- Degree of urbanization
Proportion of population living in Urban and Rural areas for the Pacific Island and Territories [..]
- Population densities
Population densities for Pacific Island Countries and Territories based on mid-year population projections and available information about land area.
- Household counts, population and average household size
Household counts, population and average household size down to sub-national level 1 (when available) based on reported figures from census.
- Population living in low elevation coastal zones (0-10m and 0-20m above sea level)
Proportion of population in Pacific Island Countries and Territories (PICTs) living in Low Elevation Coastal Zones (LECoZ) of 0-10 and 0-20 meters above sea [..]
- Population projections
Population projections for Pacific Island Countries and territories from 1950 to 2050, by sex and by 5-years age groups.

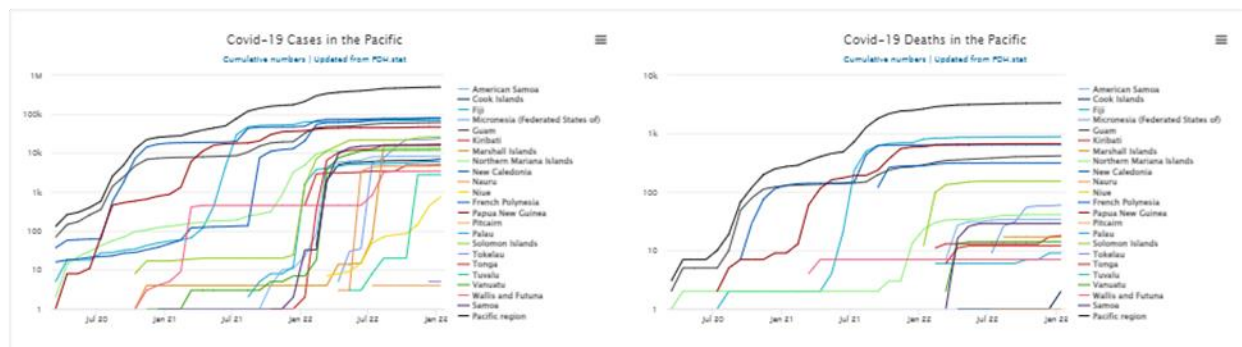
<https://sdd.spc.int/>

Example: COVID-19 Pacific Community Updates Web pages with Drupal plugins

Covid Recent cases Map



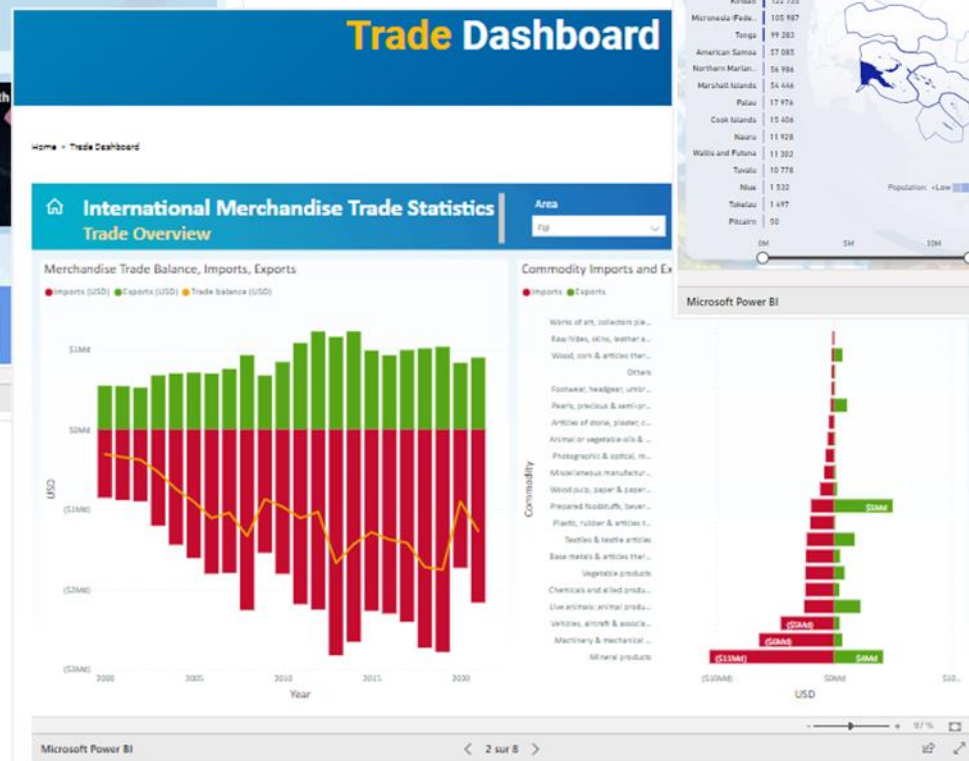
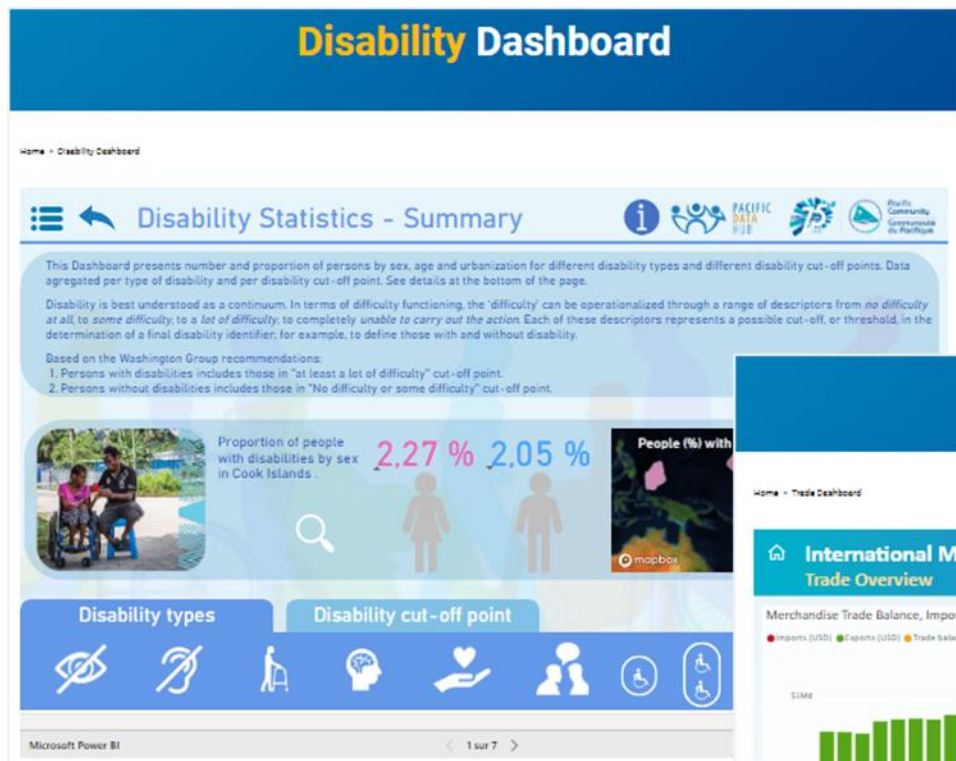
Pacific Island Countries and territories	2022-01	2022-02	2022-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12	2023-01
AS American Samoa	22	22	4,474	3,849	6,192	6,555	7,952	8,168	8,247	8,260	8,263	8,302	8,320
CK Cook Islands	0	42	1,926	4,990	3,675	5,774	6,042	6,263	6,359	6,403	6,473	6,533	6,999
FJ Fiji	62,835	63,930	64,409	64,643	65,051	65,713	67,617	69,171	69,242	69,264	69,373	69,730	69,820
FM Micronesia (Federated States of)	0	0	0	3	30	35	3,216	7,479	13,933	22,029	22,033	22,247	23,671
GU Guam	32,331	44,344	47,263	48,132	49,073	51,959	53,008	57,947	58,377	58,831	59,379	60,083	60,773
KI Kiribati	460	2,927	3,066	3,082	3,114	3,236	3,450	3,450	3,430	4,866	4,866	4,887	5,003
MH Marshall Islands	4	4	4	14	14	15	64	15,042	15,305	15,382	15,541	15,554	15,554
MP Northern Mariana Islands	4,908	9,330	11,063	11,263	11,366	11,739	12,373	13,120	13,171	13,212	13,237	13,333	13,519
NC New Caledonia	20,622	24,313	26,413	26,639	26,329	24,337	25,796	23,934	24,283	24,406	24,187	23,977	23,981
NR Nauru	0	0	0	3	3	3,394	4,407	4,610	4,610	4,610	4,623	4,623	4,777
NU Niue	0	0	7	8	8	15	49	71	80	85	147	439	747
PF French Polynesia	48,979	67,899	72,866	72,987	73,194	73,601	75,701	76,743	76,846	76,911	77,264	78,104	78,227
PG Papua New Guinea	37,270	41,302	43,374	43,217	44,251	44,723	44,793	44,837	45,010	45,463	46,132	46,663	46,663
PN Pitcairn	0	0	0	0	0	0	4	4	4	4	4	4	4
PW Palau	1,633	3,731	4,024	4,601	5,063	5,199	5,332	5,348	5,460	5,513	5,735	5,971	5,986
SB Solomon Islands	1,426	7,049	11,470	16,877	21,237	21,544	21,544	21,544	21,544	21,544	21,544	21,544	21,544
TK Tokelau	0	0	0	0	0	0	0	0	0	0	0	0	3
TO Tonga	2	333	6,346	10,320	11,749	12,346	12,397	16,132	16,132	16,132	16,222	16,487	16,793
TV Tuvalu	0	0	0	0	3	3	8	20	20	20	2,779	2,779	2,779
VU Vanuatu	7	18	3,717	7,314	9,320	11,273	11,730	11,823	11,928	11,964	11,964	12,011	12,011
WF Wallis and Futuna	424	424	424	431	431	431	825	3,218	3,411	3,411	3,416	3,431	3,430
WS Samoa	32	33	1,833	3,392	13,647	14,964	15,403	15,839	15,943	15,946	15,946	15,973	16,301
Total	211,063	296,086	336,713	363,634	381,989	396,841	420,233	433,845	442,638	473,492	483,283	491,439	496,109



<https://www.spc.int/updates/blog/2023/02/covid-19-pacific-community-updates#CurrentStatus>

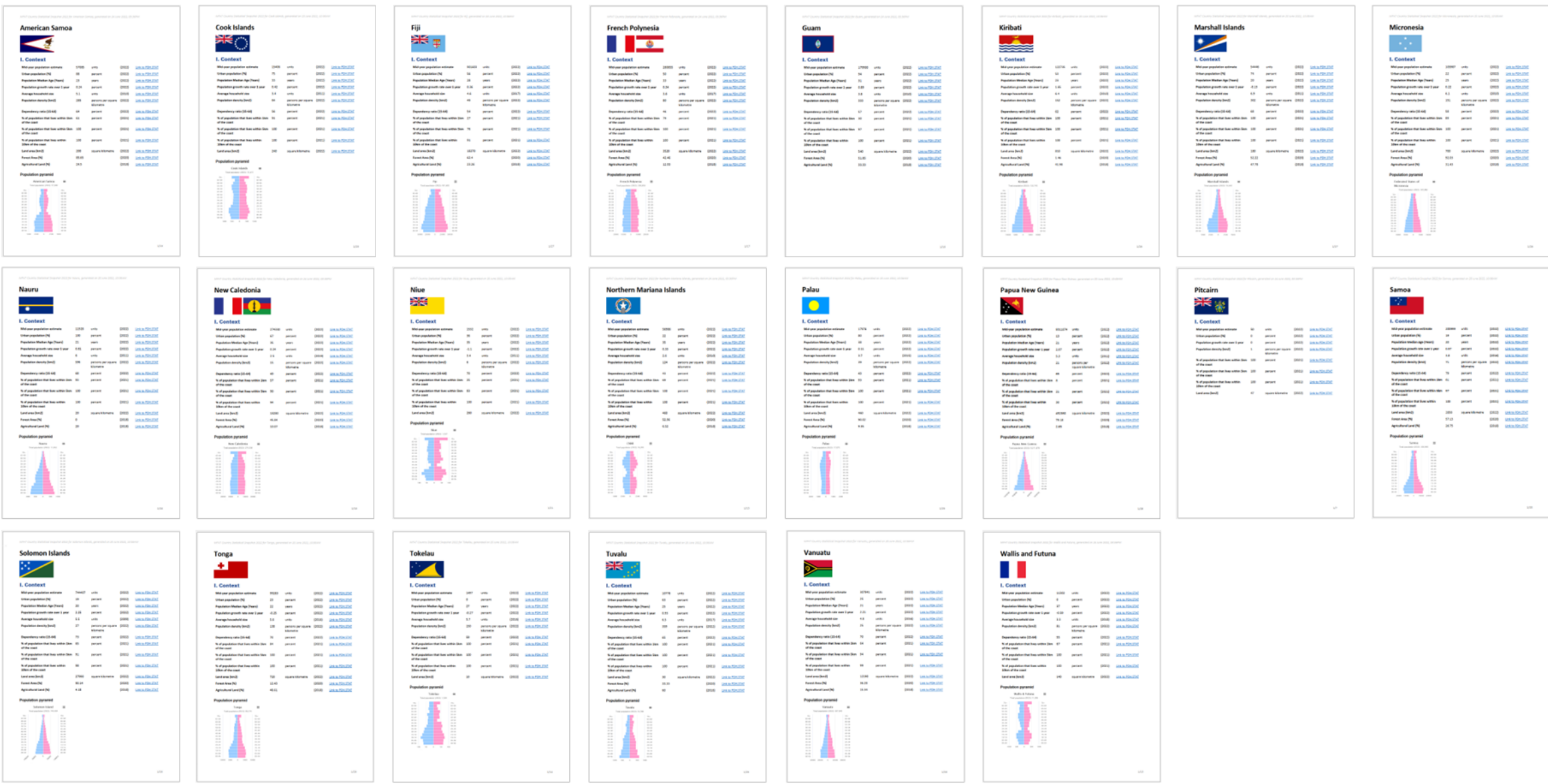
<https://php.spc.int/covid-19>

Example: Thematic dashboards with Power BI



<https://pacificdata.org/dashboards>

Example: Country Statistical Snapshots with Python/pandaSDMX



Example: .STAT content on the Pacific Data Hub CKAN catalogue

Search

Advanced search


Datasets
pdhstat
Official Statistics

123 datasets found
Order by **Relevance** ▼
+ Suggest a Dataset

Overseas visitor arrivals ★★★★★ ?

SPC Statistics for Development Division (SDD) Dataset


Overseas visitors include sea and air arrivals. It includes excursionists/same-day-visitors i.e. visitors from the cruise ship as well. Data is available by year for Pacific...



Gross Domestic Product for Pacific Island Countries and Territories ★★★★★ ?

SPC Statistics for Development Division (SDD) Dataset


Gross Domestic Product (GDP) is a measure of the monetary value of all output (or production) by all firms, non-profit institutions, government bodies and households in a...



Kava ★★★★★ ?

SPC Statistics for Development Division (SDD) Dataset

Indicators about kava production, consumption, imports, exports and contribution to GDP. Find more Pacific data on PDH.stat.



Population projections

Date created: 23 June 2022

Population projections for Pacific Island Countries and territories from 1950 to 2050, by sex and by 5-years age groups.


Find more Pacific data on PDH.stat.

View source
Download all data

Data and Resources

Licence
Other (Open)
OPEN DATA

Rating
★★★★★



Population projections data

Download Population projections data


Preview
Download

Additional Info Export metadata ▼

Identifier	• SPCDF_POP_PROJ (3.0)
Modified	2022-12-13
DCAT Type	Dataset
Source	• https://stats.pacificdata.org/via?locale=en&dataflow[datasourceid]=SPC00dataflow[agencyid]=SPC00dataflow[dataflowid]=DF_POP_PROJ&dataflow[version]=3.0
Temporal Coverage From	1950-01-01
Temporal Coverage To	2050-12-31
Publisher Name	• SPC

Groups
Show ▼

Activity Stream
Show ▼



SPC Statistics for Development Division (SDD)

Tags

age
pdhstat
population
sex

Topic

Official Statistics

Region

Melanesia
Micronesia
Polynesia

Country

American Samoa
Cook Islands
Fiji

French Polynesia
Guam
Kiribati

Marshall Islands
Federated States of Micronesia

Nauru
New Caledonia
Niue

Northern Mariana Islands
Palau

Papua New Guinea
Samoa
Solomon Islands

Tokelau
Tonga
Tuvalu
Vanuatu

Wallis and Futuna

<https://pacificdata.org/>

Benefits of having an SDMX-driven statistical business process



When a new statistical process is created for the Pacific Data Hub, the first step is to design the structure of the new statistical product and specify it explicitly using standard SDMX metadata.



Efficient processes

- ✓ Data products are designed as multi-dimensional data cubes by customising common SDMX data structure templates and by re-using as far as possible common concepts and code lists.
- ✓ Data collection templates, database tables and output products are generated to a large extent by domain-independent application building blocks (metadata-driven approach).
- ✓ Data is integrated from various sources and disseminated with SDMX as backbone model supporting a reference database implementing the “single version of the truth” principle.



Interoperable data

- ✓ SDMX standard syntaxes and information model provide syntactic interoperability.
- ✓ Common data structure templates, concepts and code lists shared among PDH datasets further provide semantic interoperability.
- ✓ Datasets from PDH.STAT are consistently modelled which make them easy to link together.

Thank you !

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Statistics for Development Division

Pacific Community

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