RESEARCH PROGRAM:
Climate, environment and health (SG-CEH)

Policy Brief | Project SG-CEH-11

Toward the Development of an Integrated Digital FAIR Data Platform on the Climate-Environment-Health Nexus in South America: A Case Study in Argentina

Country: Argentina
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The challenge

In South America, and particularly in Argentina, data on climate, the environment, and health are fragmented, with limited interoperability and difficulties in accessing and reusing them. This situation hinders the development of integrated indicators, the identification of vulnerable populations, and the ability to make timely, evidence-based decisions in response to the health impacts of climate change.

What was done

- An interdisciplinary and later transdisciplinary team was formed, bringing together institutions from the health, environment, climate, academic, and civil society sectors.
- A systematic mapping of stakeholders was conducted, identifying providers and users of CAS data.
- Transdisciplinary workshops were held to collaboratively select and prioritize climate-sensitive indicators.
- Eighty-four data sources (55 datasets and 29 platforms) were surveyed and characterized according to FAIR criteria.
- The structure of a digital platform and its MVP were collaboratively designed, including indicator modules, a data repository, and communication features.
- A communication strategy and institutional identity for the project were developed.

Main findings

- There is a high availability of CAS data in Argentina, but compliance with FAIR principles is moderate, particularly regarding interoperability, licensing, and reuse.
- An initial list of 173 CAS indicators was co-developed, aligned with the SDGs and international frameworks (PAHO, ECLAC, Lancet Countdown).
- Data fragmentation and the lack of spatial and temporal harmonization constitute the main bottlenecks.
- Transdisciplinary work strengthened the platform's relevance, legitimacy, and potential usability for public policy.

The approach

The project adopted a transdisciplinary approach based on the co-production of knowledge among government, academic, and civil society actors. The FAIR principles (Findable, Accessible, Interoperable, Reusable) were applied to data management, and work was carried out on the collaborative design of a Minimum Viable Product (MVP) for a digital platform integrated into the Climate-Environment-Health (CEH) nexus.

Impact and application

- The PladCAS platform has the potential to improve evidence-based decision-making in the areas of health, the environment, and climate change.
- It helps raise awareness of vulnerable populations and facilitates the design of equity-focused policies.
- It can be integrated into the national statistical system, strengthening monitoring, transparency, and accountability.
- It offers a scalable foundation for implementation at the regional level in South America.

Key lessons

- Building trust and maintaining ongoing communication are essential for transdisciplinary collaboration.
- It is not enough for data to simply exist; improving its harmonization, governance, and reuse is key.
- The FAIR principles must be incorporated into the institutional design of information systems.
- Striking a balance between technical sophistication and ease of use is central to achieving an impact on public policy.

Key message

Investing in integrated FAIR data platforms in the climate-environment-health nexus is key to anticipating risks, protecting the most vulnerable populations, and strengthening public decisions based on evidence, equity, and cross-sectoral cooperation in the face of climate change.

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