



Departamento Administrativo Nacional de Estadística - DANE (National Administrative Department of Statistics) - Colombia
Directorate of Regulation, Planning, Standardization and Normalization
Citizen Data Base Group

Maturity model for citizen data in Colombia

The Citizen Data Maturity Model in Colombia, developed by DANE, is a strategic tool designed to evaluate and strengthen the capacity of organizations in generating, analyzing, and using citizen-generated data, in alignment with the Copenhagen Framework and official statistics.

It was built through two participatory workshops with the involvement of 23 civil society organizations, 3 international cooperation organizations, and 9 entities from the National Statistical System, where key aspects such as accessibility, quality, relevance of data, information management, community participation, and sustainability were discussed.

The consolidated model combines the practical experience of organizations with statistical technical standards, enabling entities to self-assess their performance across different stages of the citizen data lifecycle, from identifying needs to measuring impact.

Overall, the model seeks to strengthen institutional capacities, foster cross-sector collaboration, and ensure inclusive, ethical, and representative data, promoting transparency, citizen participation, and evidence-based decision-making to consolidate a more robust data ecosystem in Colombia.

We appreciate you including your contributions and comments in the following form:



With the support of:



Dimension - Initiative Planning

Dimensions / Levels	Dimension Definition	Evaluation Criterion	Level 0 – Initial	Level 1 – Basic	Level 2 – Intermediate	Level 3 – Advanced
Initiative Planning	<p>It corresponds to the structured identification of the need or problem to be addressed, ensuring its alignment with the organization's mission purpose or the interests of the citizen group.</p> <p>It includes the formulation of an action plan to respond to that need, the validation of its relevance, the identification of key stakeholders and/or interested parties, as well as the planning of the required resources (financial, physical, technical).</p> <p>It also involves the design and implementation of training and capacity-building strategies for data production and management by citizens.</p>	Need and Mission Purpose	IP.0.1. There is no explicit connection between the identified need and the mission purposes or the interests of the citizen group.	IP.1.1. The need is related to mission and/or community purposes, without including references to national, territorial, and/or sectoral priorities, and has been validated within the organization.	IP.2.1. The need is related to mission and/or community purposes, including references to national, territorial, and/or sectoral priorities, and has been validated within the organization.	IP.3.1. The need is formulated and validated collaboratively, fully aligned with mission and community purposes, and explicitly articulated with international, national, territorial, and/or sectoral policies and priorities.
		National, Territorial, or Sectoral Priorities	IP.0.2. There is no knowledge of national, territorial, or sectoral priorities that connect with community purposes for the generation or use of citizen data.	IP.1.2. At least one policy, strategic line, or national or territorial reference that promotes the generation or use of citizen data has been consulted, considered, and acknowledged, although without analysis or articulation with the initiative.	IP.2.2. Policies, strategic lines, or national or territorial references are identified and integrated, with contextual analysis and a direct relationship to the initiative's objectives, and preliminary approaches are underway to achieve coordinated actions.	IP.3.2. The articulation with policies, strategic lines, or national or territorial references is institutionalized through agreements, partnerships, or coordinated actions.
		Alliances and Stakeholders	IP.0.3. No stakeholders are identified, nor has their role within the process been considered.	IP.1.3. Some stakeholders are identified through an initial mapping, but their roles or mechanisms for coordination within the process have not been defined.	IP.2.3. A group of relevant stakeholders has been identified with specific roles and/or initial contact or collaboration has begun with some of them (committees, roundtables, agreements, etc.).	IP.3.3. A stakeholder map or network has been built, and strategic alliances are maintained with specific roles, formal commitments, and spaces for decision-making and co-governance within the process.
		Required Resources	IP.0.4. The identification and management of the necessary resources (financial, physical, technical, human, etc.) for the development of the data initiative has not been carried out.	IP.1.4. The required resources have been identified, and possible sources have been preliminarily explored, but there is no management plan.	IP.2.4. There is resource planning that includes financing, leveraging, or cooperation strategies, and initial resources have been managed.	IP.3.4. The resources and sources of financing are secured, along with their anticipated management, including accountability and adjustments based on lessons learned.
		Capacity Building	IP.0.5. There are no training actions (training sessions, knowledge management, capacity building, mentoring, technical assistance, field schools, knowledge exchange, among others) directed at the stakeholders involved.	IP.1.5. Some training actions have been initially identified, but the way to target them to the stakeholders involved has not been analyzed.	IP.2.5. Some training actions are carried out, but they are not included in a plan.	IP.3.5. A continuous and structured training plan is developed that responds to the capacities required for citizen data management, with continuous strengthening pathways and mechanisms for transferring capacities to new individuals or territories.
		Action Plan	IP.0.6. No action plan has been developed that incorporates data collection to address the identified need, or the current plan does not include this activity.	IP.1.6. A preliminary (draft) action plan exists that mentions data collection, although without methodological details or a timeline.	IP.2.6. A participatorily approved action plan is in place that incorporates citizen data collection as a central strategy, including a timeline, responsible parties, and expected outputs.	IP.3.6. The action plan, which incorporates citizen data collection, is under implementation with systematic monitoring, includes monitoring and evaluation tools (qualitative and quantitative indicators), and adapts to changing contexts.

Dimension - Governance and Participation

Dimensions / Levels	Dimension Definition	Evaluation Criterion	Level 0 – Initial	Level 1 – Basic	Level 2 – Intermediate	Level 3 – Advanced
Governance and Participation	<p>It refers to the establishment of clear and sustainable mechanisms for community interaction, the strengthening of citizen participation, and the articulation with diverse actors of the data ecosystem (organizations, academia, public sector, among others).</p> <p>It considers the incorporation of ethical principles and frameworks for collective decision-making, the processing of personal data for the generation, use, and leverage of data, as well as the building of strategic alliances that enhance the reach and impact of the initiatives.</p>	Identification of the Participating Community	G.0.1. The participating community has not been formally identified within the initiative.	G.1.1. The participating community has been identified through instruments such as registries, databases, or calls for participation, and the community is informed about the process but does not take part in decision-making or in the design of the initiative.	G.2.1. Community participation is promoted at specific stages of the process and through appropriate communication mechanisms with differentiated strategies (linguistic, cultural, etc.). The results of participation are not necessarily incorporated into decision-making.	G.3.1. The community actively participates throughout the entire cycle of the initiative, with mechanisms of representation and recognized spokespersons. Their contributions are incorporated into decision-making.
		Rights-Based Approaches	G.0.2. The different rights-based approaches, such as differential, gender, and intersectional, among others, are not recognized for inclusion and equity in citizen data.	G.1.2. Rights-based approaches (differential, gender, intersectional, etc.) are acknowledged, although without systematic application or specific analysis.	G.2.2. Rights-based approaches are applied in a contextualized way in specific activities of the value chain, through guidelines or affirmative actions with population groups.	G.3.2. Rights-based approaches are applied transversally throughout the entire value chain, with systematic monitoring of their implementation and differential impacts.
		Data Processing and Applicable Consents	G.0.3. There is no initial agreement that sets out provisions for the processing of personal data for the generation and use of citizen data.	G.1.3. Participants are informed about the nature of the process, but there is still no formal mechanism for personal data processing.	G.2.3. Authorization for the processing of personal data is obtained through formats designed with appropriate and context-adapted language.	G.3.3. The processing of personal data is an integral part of the processes, covering all phases and aligned with current legal frameworks.
		Ethical Principles	G.0.4. Ethical principles for the management and use of collected data are not known or applied.	G.1.4. Ethical principles are mentioned in documents or presentations but are not applied in decisions or practices.	G.2.4. Explicit ethical principles have been adopted, with internal guidelines or protocols, and are evaluated in process activities.	G.3.4. The incorporated ethical principles are institutionalized, with monitoring mechanisms, self-regulation, and the resolution of ethical dilemmas through committees or deliberative spaces.
		Mechanisms for Citizen Participation	G.0.5. There are no mechanisms (such as internal policies or procedures) for citizen participation in a transparent and inclusive manner (including special regulations for ethnic groups, where applicable).	G.1.5. Mechanisms have been used to encourage participation, but without defined policies or an inclusion approach.	G.2.5. Defined mechanisms and basic procedures exist for participation, with actions aimed at fostering the inclusion of diverse populations and ensuring decision traceability.	G.3.5. Citizen participation is fostered through internal regulations, protocols, and sustainable practices that promote transparency, equity, and shared responsibility. This includes policies for the participation of communities and ethnic groups, where applicable.

Dimension – Methodology

Dimensions / Levels	Dimension Definition	Evaluation Criterion	Level 0 – Initial	Level 1 – Basic	Level 2 – Intermediate	Level 3 – Advanced
Methodology	<p>It comprises the technical and operational processes related to the collection and processing of datasets and the analysis of results.</p> <p>It focuses on ensuring the quality of the information produced through protocols, appropriate tools, and participatory methodologies adapted to the community context, and includes the strategies implemented for the dissemination of the results of citizen data initiatives.</p>	Work Team	M.0.1. There is no work team in place to carry out a citizen data process.	M.1.1. A work team exists, with people assuming functions occasionally, without specialized training or a defined structure.	M.2.1. A work team has been established with responsibilities, capacity building, and task division according to profiles.	M.3.1. The work team is interdisciplinary, has experience in citizen data management, and participates in continuous improvement processes, networks, or communities of practice.
		Methodological Design and Development	M.0.2. There is no design of the activities to be carried out in the research. There are no technological tools or structured instruments for data collection. Questions have been identified, but they are open-ended and lack validation. No variables have been defined. Workflows, roles, and protocols have not been established either.	M.1.2. The design and development of some elements to be considered during the initiative have begun. Basic technology (word processors, spreadsheets) is used to support data management. A preliminary data collection instrument is available with closed questions and some variables and indicators defined, but without systematic validation or a data-gathering protocol, depending on the data source. Exploratory tests are conducted, and initial roles are identified, although without a functional structure.	M.2.2. Most of the activities are designed and developed. More advanced technological tools (specialized platforms, relational databases, open-source software) are used to manage and store data with basic organization. The data collection instrument is validated with a documented testing plan, concrete variables are defined, and adjustments are made based on feedback. Data exchange protocols are structured when secondary sources are involved. Workflows are documented, and coordination among participating groups is strengthened.	M.3.2. A structured methodological design is in place covering all activities of the initiative, and all tools and instruments are developed. The technological tools are ready to be used safely and efficiently throughout the entire data lifecycle. The data collection instrument and its associated tools have been adjusted following the testing phase. Collection protocols, well-defined roles, manuals, formats, and data custody and security schemes are available.
		Data Collection, Processing, and Results Analysis	M.0.3. No data collection, processing, or results analysis is carried out.	M.1.3. Some data collection activities have been conducted, but no processing activities such as logical verification between variables or consistency checks have been performed. No standards are implemented, nor are activities documented.	M.2.3. Data collection, processing, and results analysis are carried out in a planned and continuous manner, but the methodologies used lack validation. Some standards are implemented, and some activities are documented.	M.3.3. Data collection, processing, and results analysis are continuous, participatory, and contextualized, using methodologies validated in the territory and aligned with applicable national and international standards. Standards are implemented, and the activities carried out are documented.
		Data Protection	M.0.4. The need to protect data is not recognized, and the applicable regulations are not identified.	M.1.4. The need to protect data is recognized, but there is no protocol or defined practices for its safeguarding and custody.	M.2.4. A safeguarding and custody protocol exists that defines roles, security measures, and information retention periods.	M.3.4. The safeguarding and custody protocol encompasses technical, legal, and ethical dimensions and is aligned with national and international regulations.
		Production of Outputs	M.0.5. The generation of accessible, relevant, or culturally appropriate products for different audiences (including populations with technological or linguistic barriers) is not considered.	M.1.5. Some data products (such as reports or infographics) have been created, but they do not take into account specific accessibility needs or cultural and linguistic adaptations. They are distributed broadly without audience segmentation.	M.2.5. The products generated are designed based on the characteristics of different audiences, incorporating accessible formats (easy-to-read materials, visual resources, indigenous languages, or alternative communication methods). Their comprehension and usefulness are qualitatively assessed through community feedback.	M.3.5. Differentiated products are developed and validated with target audiences through comprehension testing, cultural appropriateness, and technological accessibility assessments. Impact and participation metrics are used to continuously improve their design.
		Communications strategy	M.0.6. There is no strategy, communication plan, or defined channels for the dissemination of data with the community or other stakeholders.	M.1.6. Some dissemination actions have been carried out for specific stakeholders, without a defined strategy or channels, and/or there is a preliminary document of the communication plan.	M.2.6. A dissemination and communication strategy is implemented through a plan, with objectives, defined channels, and adaptation to different audiences (using visual, digital, or in-person tools).	M.3.6. The dissemination and use of data has a multi-channel, accessible, and sustained strategy that promotes appropriation by different stakeholders and territorial levels.
		Documentation of the products	M.0.7. There is no monitoring or documentation of the products, results, or lessons learned.	M.1.7. Products are documented in an isolated manner (reports, files), without systematization or use for future decision-making.	M.2.7. Regular monitoring of products and results is carried out, good practices are systematized, and lessons learned are shared with other similar processes	M.3.7. The products, results, and lessons learned are documented and evaluated; replicable models are generated and articulated with knowledge networks or platforms.

Dimension – Use and impact

Dimensions / Levels	Dimension Definition	Evaluation Criterion	Level 0 – Initial	Level 1 – Basic	Level 2 – Intermediate	Level 3 – Advanced
Use and impact	<p>This refers to the appropriation by the community and its capacity to influence social, community, or public policy processes.</p> <p>It includes the monitoring of the uses and transformations derived from the knowledge produced.</p>	Community and territorial incentives	D.0.1. Community and territorial incentives for the use of data are not established and managed.	D.1.1. Some benefits or motivations for the community are informally identified, without established mechanisms to promote the use of data.	D.2.1. Incentives or benefits for the community and local stakeholders have been defined for the use of data (visibility, informed decisions, return of results).	D.3.1. Community and territorial incentives are integrated into the design and evaluation of the process, generating recognition, empowerment, or concrete and sustainable benefits for communities from the use of data.
		Use of data	D.0.2. The use of the data produced is not encouraged, nor is its connection to local agendas or decisions promoted.	D.1.2. The use of data is encouraged to be included in specific local-level agendas or decisions	D.2.2. The use of data is actively promoted in local agendas or decisions, participatory diagnoses, or proposals to local authorities or external stakeholders.	D.3.2. The data produced has an impact on public decisions, collective actions, or local and/or sectoral policies.
		Changes in the environment	D.0.3. The generation of or contribution to significant changes in the environment is not foreseen	D.1.3. The intention to generate impact is recognized, but without concrete evidence of changes derived from the process	D.2.3. Observable changes (actions, decisions, perceptions) attributable to the use of data are identified and documented, using qualitative or quantitative methods.	D.3.3. Impact on the environment is demonstrated through structured analyses, case studies, participatory or comparative before-and-after evaluations.