

## A Note on the Methodology

# Mapping Administrative Units into Assembly and Parliamentary Constituencies in Bihar

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## I. Rationale for the Initiative

This exercise entails mapping administrative units of a State into its Assembly Constituencies (ACs) and Parliamentary Constituencies (PCs). The objective of this exercise is to bring coherence between administrative and electoral boundaries, thereby facilitating public engagement with fiscal governance issues at the grassroots level. The significance of such an exercise draws from the following four points:

1. Public availability of granular fiscal information on various development schemes can increase engagement of the citizens and the elected representatives, and potentially improve their implementation and outcomes. The present situation is uneven across the schemes and the States.
2. Even in case of the development schemes for which granular fiscal data is available publicly, it's organized by the administrative units only—namely, districts, blocks, gram panchayats (GPs) and urban local bodies (ULBs). The data is not presented by electoral constituencies, thus limiting an effective engagement of the elected representatives and the citizens.
3. For an effective data representation, both fiscal and outcome information should be organized by ACs and PCs, and made available in the public domain.
4. However, there is no comprehensive and up-to-date database yet that maps administrative units into ACs and PCs.



## II. Profile of the State: Bihar

As per the Fourth Delimitation Commission, under the 2002 Delimitation Commission Act, the State of Bihar is divided into 40 PCs and 243 ACs<sup>1</sup>. Delimitation of the number of constituencies within a district is done by considering population figures and its composition as per the Census 2001.

On an average, one PC in Bihar constitutes 6 to 7 ACs. The Community Development Blocks (located

within different sub-Divisions of the State) were used as the primary territorial divisions to delimit ACs in the State. Gram Panchayats (GPs) for rural areas and wards for urban areas have been used as the lowest mentioned units to delimit ACs. Figure 1 provides a brief account of the administrative and electoral divisions for Bihar on the basis of which Geo-files have been prepared for the State.

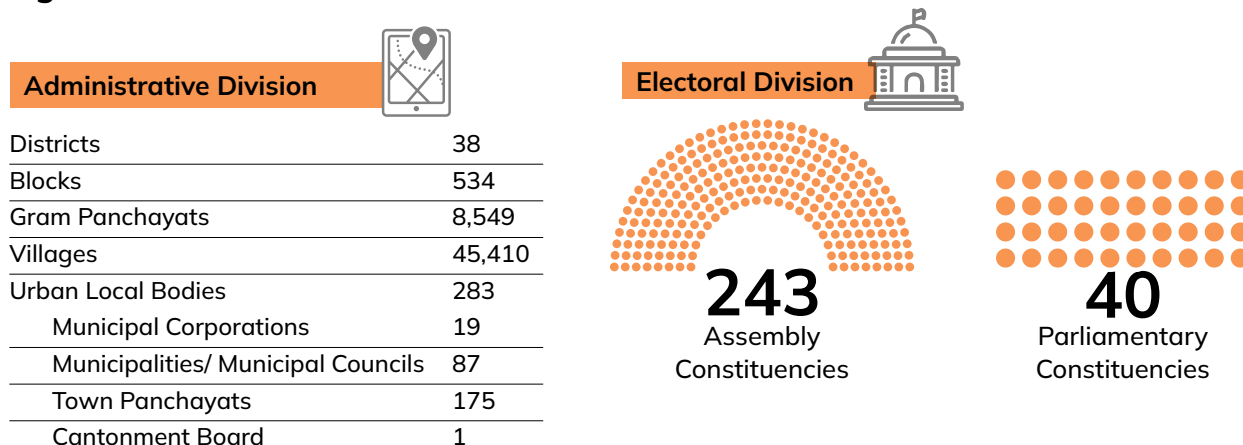
<sup>1</sup> In reference to the territorial division as on the 15th day of February, 2004.



Figure 2 documents the spread of ACs and PCs across the rural and urban areas of Bihar. Around 20.6 per cent of ACs in Bihar (50 out of 242 ACs) completely comprise of rural areas. Further, only 1 AC is split across two districts; whereas 5 PCs map exactly to an entire district. Another 14 PCs

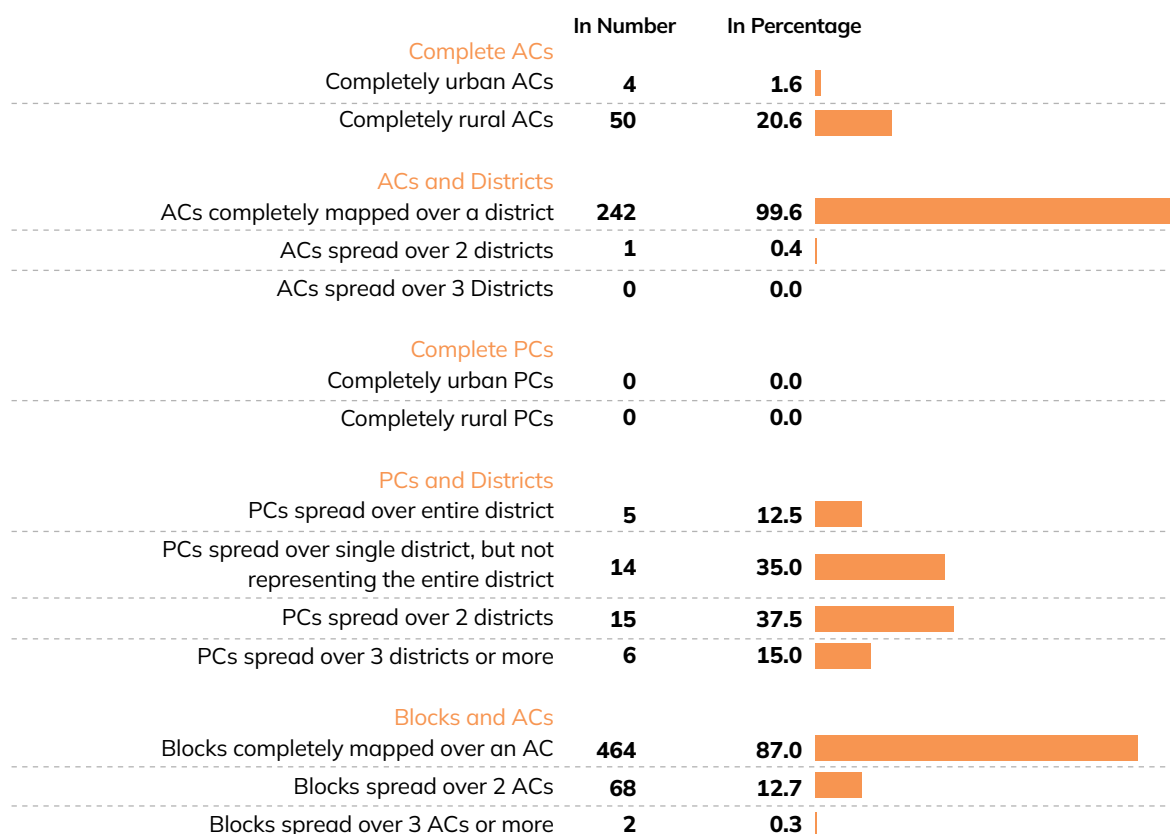
lie within a single district but don't cover it fully, 15 PCs are split across two districts, and 6 PCs are split across three and more districts. About 87 per cent of blocks in Bihar are completely mapped over an AC and only 12.7 per cent of blocks are split across two ACs (Figure 2).

**Figure 1: Details of Administrative and Electoral Divisions for Bihar**



Source: Compiled by CBGA from the Local Government Directory (LGD)- Ministry of Panchayati Raj, Government of India: <https://lgdirectory.gov.in/>

**Figure 2: Spread of ACs/PCs across Rural/Urban Areas and Districts in Bihar**



Note: Percentages might not add up to 100 due to rounding off. Source: Compiled by CBGA from the Geo-files of the State



### III. Construction of Geo-Files for Bihar

#### Step 1: First round of mapping of administrative units into Electoral Units

- Thoroughly reviewed the Delimitation Commission's Report (2008) for preliminary mapping of administrative units into ACs and PCs. This was done to understand how ACs and PCs have been constructed for Bihar.
- Reviewed the websites of the Election Commission of India, Chief Electoral Officer of Bihar and Booth Level Office (BLO) lists to map new administrative units into the constituencies.

#### Step 2: Updating and refining geo-files

- Reviewed the website of the Local Government Directory (LGD) created post the Delimitation Commission 2008 to list additional rural local bodies (RLBs) and map them to their constituencies.
- Reviewed the information related to the administrative units available on:
  - the websites of the Gram Panchayat Development Plan (GPDP) and the Socio Economic and Caste Census (SECC)
  - the website of the Ministry of Housing and Urban Affairs, Government of India (GoI)
  - the website of the Department of Urban Development and Housing, Government of Bihar
  - the website of the Department of Panchayati Raj, Government of Bihar

- the website of the Urban Livelihood Mission, GoI
- the website of the Urban Livelihood Mission, Government of Bihar
- the latest scheme database / MIS / dashboard (of MGNREGS, NSAP, PMAY-G and SBM-G) for block-wise sorting of GPs
- Updated and refined the preliminary mapping of the administrative units into ACs and PCs using the sources/information mentioned above.

#### Step 3: Further refinement of geo-files

- Conducted 'fuzzy matching' between the latest available MIS of four schemes (MGNREGS, NSAP, PMAY-G and SBM-G) and the refined geo-files, and bucketed them into ACs and PCs.
- Referred to media reports and government orders for the latest additions of the administrative units.
- Identified and documented additional RLBs (created post Delimitation Commission 2008) by referring to the various district websites of Bihar.
- Referred to the listing of ULBs provided in the latest scheme datasets (for example, NSAP) to further refine ULB names across Districts of Bihar.
- Ensured uniformity in spellings / names for RLBs and ULBs that have been modified post Delimitation Commission Report (2008).



#### Step 4: Validation of geo-lists through multiple sources

Validation of the mapping was done through multiple sources:

- Referred to the Unified District Information System for Education Plus (UDISE+) database, which has recently started providing information on the constituencies.
- Referred to the Local Government Directory (LGD), which too has started providing information on how RLBs and ULBs (in select States) correspond to the constituencies.
- Checked with government officials and elected representatives to ascertain the accuracy of geo-listing for doubtful cases.

We have analysed and thoroughly reviewed different sources of information for listing and aligning administrative units across ACs and PCs

of Bihar. Cross-checking of information through multiple sources has been done to ensure maximum possible accuracy in the alignment and validation of the geo-listing. Further, using the data/information sources mentioned above, we prepared the listing of all administrative units (GPs and ULBs up to the ward level) and aligned them with their respective constituencies so that it is possible to obtain a complete territorial arrangement of a particular electoral division for Bihar.

Similarly, differences in names or spellings of Districts, Blocks and local bodies were common and needed to be cross-checked to maintain consistency. In order to validate the listing of geo files, we referred to the data presented in MIS of schemes and information available on Bihar's official websites and the Election Commission's websites. The district websites were helpful regarding the changes in district and block names, whereas the latest scheme database was used primarily to update spellings of the local bodies.



## IV. Challenges Faced

These are some challenges faced while preparing geo-file for Bihar.

**i. No data source has complete and up-to-date information for such mapping:** While the Delimitation Commission report provides detailed information on constituencies, administrative units used by the Commission are not up to date. Newly-formed administrative units were compiled based on the data available across MIS of schemes, programme documents and other possible sources. This necessitated referring to the multiple sources

to complete the listing appropriately and make the geo-files up to date and relevant. Information on the local bodies (both rural and urban) formed since 2008 was scattered, making it challenging to compile a comprehensive and accurate geo-file.

**ii. Inconsistencies across different sources of information:** Names/ numbers/ spellings of administrative units have been updated from time to time, and therefore needed to be cross-checked with the latest source of information. There is a lack of consistency in the information provided by different



official sources, making it essential to cross-validate information from multiple sources manually. This was a time-taking process.

**iii. Mismatches of categories over time:** Types of local bodies have also changed over time. For example, Panchayats progressing to become towns and upgraded as ULBs. Similarly, lower levels of

ULBs being upgraded to higher tiers. This created difficulties in aligning them.

**iv. Information on local bodies presented in regional languages:** Sometimes, Hindi words presented with English alphabets created confusion when referring to multiple sources.



## V. How We Addressed Those Challenges

The following steps were taken to overcome the above-mentioned challenges.

**i. Cross validation by referring to multiple official sources:** Mismatches in spellings of names, number and type of administrative units, across different sources, have been addressed by referring to the government websites that provide the latest information. It has been assumed that the number/names/spelling that appear similar on more than

one government website is appropriate.

**ii. Consultations with frontline government staff:** Cases of local bodies for which constituencies remained unidentified have been resolved with references received from local government and frontline officials (mostly school teachers, Anganwadi workers and NGO personnel). We have consulted resource persons/experts in the field to resolve these cases.



## VI. Key Takeaways

Through this exercise, we have developed a rigorous methodology to map administrative units of a State into its constituencies, and created complete and up-to-date geo-files for it. These can be used for

policy research and analysis. The geo-file of Bihar as a final output would enable researchers, policy analysts and policy practitioners to understand the association between electoral and administrative



divisions in a coherent manner, and generate constituency-level estimates from the data available at different geographical levels. It is imperative that the geo-files be integrated into the most-relevant MISs providing fiscal and physical information of

State schemes in the public domain and facilitate application programming interface (API) integration following the standards of National Data Sharing and Accessibility Policy (NDSAP) guidelines.



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### **About the Methodology Notes**

These State-wise notes document the methodology used for mapping administrative boundaries (Rural Local Bodies, Urban Local Bodies and Districts) into the electoral boundaries (Assembly and Parliamentary Constituencies) in the selected States. These notes also highlight the challenges faced in the mapping exercise as well as the steps taken to overcome those.

### **About the Initiative**

The overarching objective of this initiative is to explore how fiscal information available to the citizens can be made more relevant locally in order to create spaces for strengthening political accountability for public financial management (PFM). Guided by such a vision, the initiative set out to - bring coherence between administrative and electoral boundaries by mapping and aligning the administrative boundaries (Gram Panchayats and Urban Local Bodies) with the boundaries of Assembly Constituencies (ACs) and Parliamentary Constituencies (PCs); collect, verify, organize and map disaggregated fiscal information on major development schemes to ACs and PCs; and create analytics and visualizations with the AC-wise and PC-wise fiscal information to facilitate the uptake of such information by different actors in the PFM landscape.



OpenBudgetsIndia

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OBI is a comprehensive and user-friendly open data portal that facilitates free, easy and timely access to fiscal information. It provides budget information for different tiers of government in India in accessible and open (non-proprietary) formats. Please visit the portal at: [www.openbudgetsindia.org](http://www.openbudgetsindia.org)



### **About CBGA**

Centre for Budget and Governance Accountability (CBGA), an independent think tank based in Delhi, analyses public policies and budgets in India and advocates for greater transparency, accountability and scope for participation in budgets. For more information about CBGA's work, please visit [www.cbgaindia.org](http://www.cbgaindia.org) or write to us at: [info@cbgaindia.org](mailto:info@cbgaindia.org)

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