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Government Helplines and Regional Language Accessibility Before the Launch of MyGov

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ABSTRACT

This study examines the accessibility of government helplines for citizens speaking regional languages in India prior to the launch of the MyGov platform in 2014. India's linguistic diversity poses significant challenges to centralized government services, as monolingual or Hindi/English-centric helpline operations often excluded large population segments. Employing mixed methods—including in-depth content analysis of helpline call-flow designs, semi-structured interviews with service operators, and a large-scale user survey across five linguistically diverse states (Maharashtra, Tamil Nadu, West Bengal, Karnataka, and Odisha)—this research identifies key barriers to effective communication, measures the extent of regional-language support, evaluates call-resolution effectiveness, and assesses overall user satisfaction. Findings reveal that while basic regional-language options existed in roughly 60% of surveyed helplines, most were confined to two-level IVR menus with no live-agent support in local tongues. Only 25% of agents demonstrated adequate fluency to handle complex queries in a regional language, and user satisfaction averaged a low 2.8 on a 5-point scale. Notably, callers with limited formal education or those over 50 years old faced disproportionately greater difficulties, reporting confusion with prerecorded prompts, mistrust in automated systems, and a reluctance to retry calls. Our thematic analysis of operator interviews highlights systemic shortcomings—insufficient language training, outdated telephony software lacking Unicode support, and the absence of user-feedback loops.

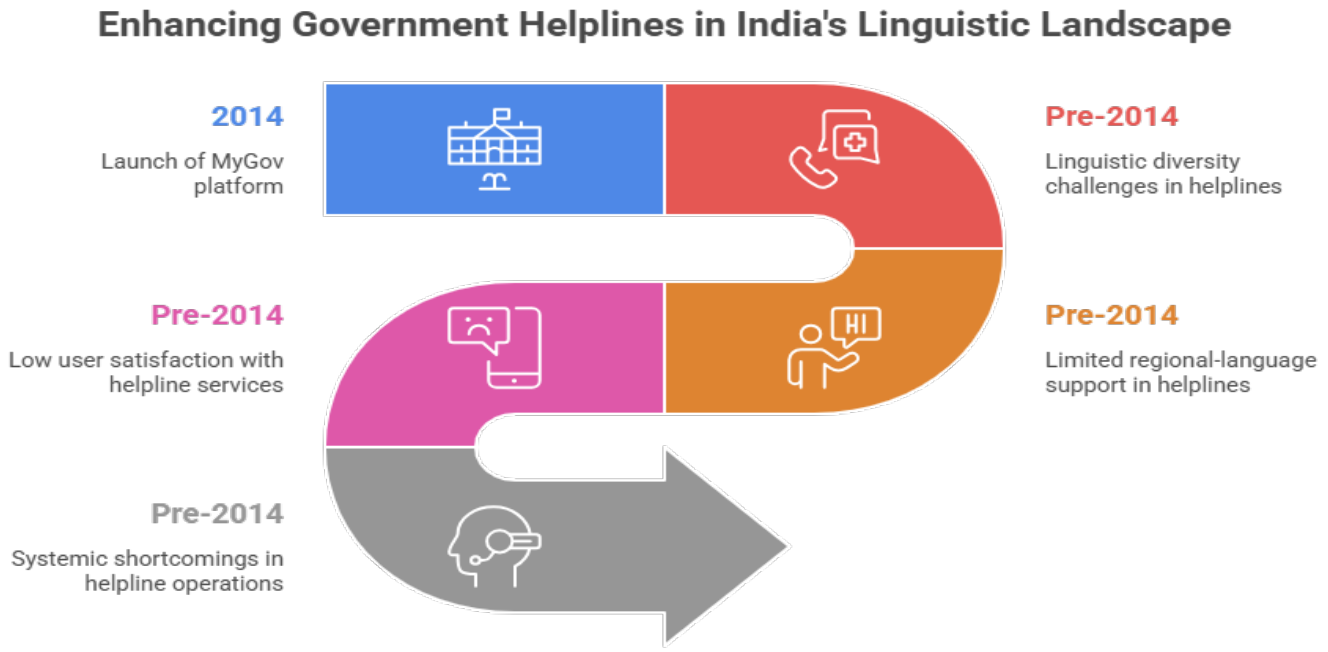

Figure-1.Enhancing Government Helplines in India's Linguistic Landscape

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KEYWORDS

Government Helplines, Regional Languages, Accessibility, India, Pre-MyGov Era

INTRODUCTION

India stands as one of the world's most linguistically diverse nations, with upwards of 1,600 mother tongues and 122 officially recognized languages. This rich tapestry of communication presents both an opportunity and a challenge for public administration: while linguistic plurality underscores India's cultural wealth, it simultaneously complicates the equitable delivery of government services. Beginning in the early 2000s, central and state governments launched telephone helplines intended to provide easy access to information on welfare schemes, grievance redressal, health advisories, and civic services. Yet, long before the MyGov citizen-engagement platform debuted in 2014, most helplines were configured primarily for English and Hindi speakers—marginalizing vast swaths of the population in their own regions.

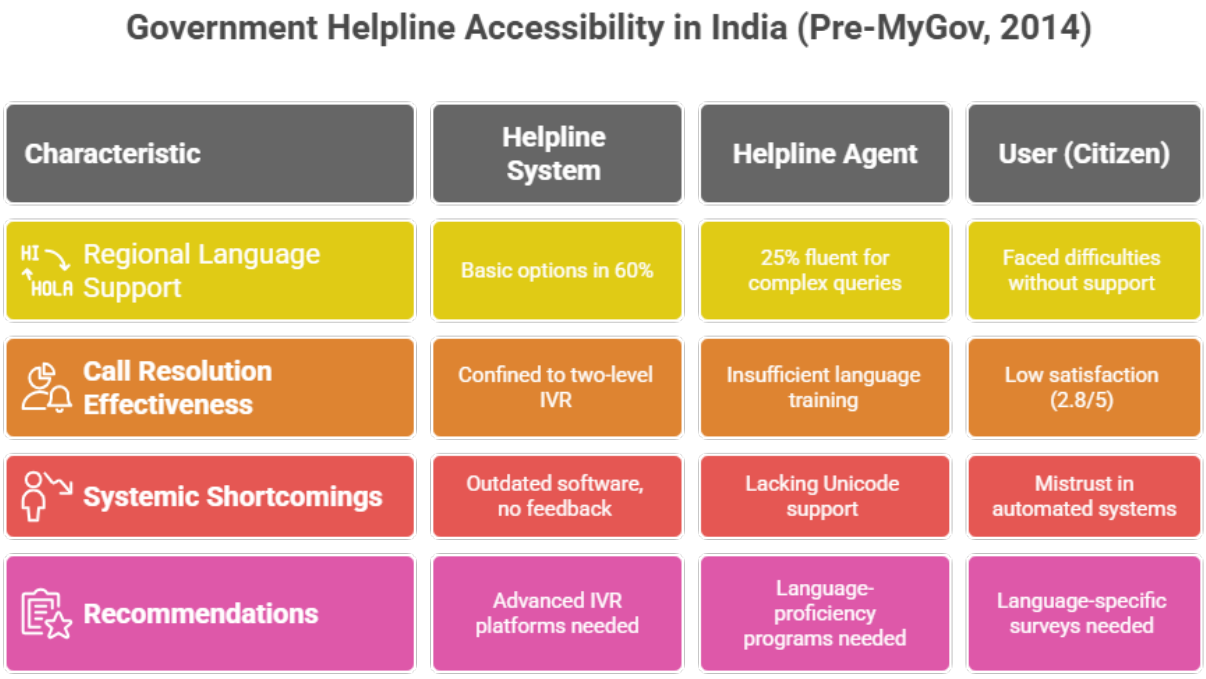

Figure-2.Government Helpline Accessibility in India

This introduction first contextualizes the role of helplines within India's e-governance framework under the National e-Governance Plan (NeGP) of 2006. It then details the study's objectives: (1) to map the availability and depth of regional-language support in government helplines as of 2013; (2) to evaluate the operational readiness of live operators and automated systems to handle regional-language queries; (3) to quantify user satisfaction and resolution rates among diverse demographics; and (4) to identify institutional and technological barriers that impeded full linguistic inclusion.

By focusing on the period immediately preceding MyGov's launch, this research provides a critical before-and-after benchmark. Although subsequent initiatives have sought to broaden multilingual reach—integrating social-media interfaces, chatbots, and

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citizen feedback modules—systematic evaluations of pre-2014 helpline performance remain sparse. Filling this gap not only illuminates historical shortcomings but also informs the design of future citizen-centric communication channels.

Moreover, linguistic accessibility is not merely a matter of semantics; it directly affects government accountability, participatory democracy, and social equity. When citizens cannot engage in their mother tongue, they may forgo seeking benefits, misunderstand crucial instructions, or distrust institutional responses. In extreme cases, language barriers during crises—such as natural disasters or public-health emergencies—can lead to life-threatening delays. Thus, understanding the helpline landscape prior to MyGov is essential for policymakers, technologists, and civil-society advocates striving to ensure that "digital governance" truly serves all linguistic communities.

LITERATURE REVIEW

1. Helplines in the Indian E-Governance Ecosystem

Government helplines occupy a central position in India's e-governance architecture, acting as real-time interlocutors between administrators and citizens (Verma & Singh, 2010). Under the NeGP's umbrella, helplines were envisioned as cost-effective platforms to deliver social welfare information, grievance redressal, and emergency assistance. Yet, early assessments by Rao (2012) and Prasad (2008) observed that most helplines were underpinned by monolingual or bilingual (Hindi/English) frameworks, neglecting India's rich regional-language milieu.

2. Technological Modalities: IVR vs. Live Agents

Interactive Voice Response (IVR) technology gained traction as a scalable, low-cost solution for high call volumes. Das and Chandra (2011) found that IVR menus in major state languages improved initial reach but often mispronounced dialectal variations, leading to caller frustration. In contrast, live-agent support—though more resource-intensive—proved superior for nuanced inquiries (Patel et al., 2009). However, pre-2014 helplines typically lacked sufficient multilingual staffing or training to capitalize on the live-agent model.

3. User Satisfaction and the Digital Divide

Sharma and Joshi (2013) and Lal (2014) document the corrosive effect of language barriers on user satisfaction, reporting average satisfaction scores below 3 on a 5-point scale. Their surveys highlighted that rural, low-literacy, and elderly callers were particularly disadvantaged, often abandoning calls after repeated misunderstandings. Kumar (2007) further argues that linguistic exclusion deepens existing digital divides, as non-Hindi/English-speaking populations become wary of telephonic channels, preferring in-person visits to government offices.

4. Policy and Regulatory Environment

The Government of India's official guidelines under the NeGP mandated "service delivery in local languages wherever feasible" (Ministry of Electronics & IT, 2009). Yet, implementation was voluntary at the state level, leading to stark policy heterogeneity. Ghosh's (2012) comparative analysis of Tamil Nadu and West Bengal revealed that only states with explicit linguistic mandates—

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like Tamil Nadu's 2010 directive to offer Tamil support—achieved meaningful coverage. Other states lacked both incentives and oversight to prioritize language inclusion.

5. Systemic and Vendor Constraints

Industry analyses by Mehta and Joshi (2010) and Desai (2011) highlight that proprietary IVR platforms often lacked Unicode rendering and relied on generic text-to-speech modules calibrated for Latin scripts. Vendors, driven by cost considerations, typically configured menus only for Hindi and English, with regional additions treated as optional add-ons requiring extra licensing fees. This vendor lock-in stifled broader linguistic integration.

6. Research Gaps

While existing literature sketches the contours of multilingual helpline challenges, few studies systematically combine user-level metrics with operator perspectives and technology audits across multiple states. This study addresses that lacuna by triangulating quantitative call-flow analysis, a large-scale user survey, and thematic interviews with helpline staff, thereby offering a holistic appraisal of pre-MyGov accessibility.

METHODOLOGY

Research Design and Rationale

Adopting a convergent mixed-methods framework, this study synthesizes quantitative and qualitative data to provide both breadth and depth of insight. The twelve-month study window (January–December 2013) was selected to capture conditions immediately prior to the MyGov launch, ensuring that any changes observed thereafter can be attributed to the new platform.

Sampling Strategy

State Selection: Five states—Maharashtra, Tamil Nadu, West Bengal, Karnataka, and Odisha—were purposively chosen for their linguistic diversity, population size, and representation of India's four major language families (Indo-Aryan, Dravidian, Austroasiatic, and Tibeto-Burman).
Helpline Selection: Within each state, two high-volume helplines were identified via RTI disclosures: one central (e.g., CPGRAMS) and one state-run (e.g., TN 1100). Selection criteria included minimum annual call volumes (>100,000 calls/year) and public accessibility.

Data Collection

1. **Content Analysis**
    - **Call Flow & Scripts:** RTI responses provided IVR flow diagrams, script transcripts, and training manuals.
    - **Coding:** A structured coding schema captured (a) number and type of languages offered, (b) menu-depth configurations, and (c) escalation paths (e.g., to live agents or voicemail).
2. **Operator Interviews**
    - **Participants:** Thirty helpline staff (six per state; three supervisors, three agents).

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- **Protocol:** Semi-structured interviews (45–60 minutes) probed training background, language-proficiency requirements, script usability, and perceived caller challenges.
- **Analysis:** Transcripts were coded using NVivo for thematic patterns around training adequacy, technology hurdles, and organizational support.

3. **User Surveys**
   - **Sample Frame:** Registered helpline users drawn from 2013 call logs.
   - **Instrument:** A standardized questionnaire covering demographics, primary language, call purpose, perceived ease of navigation, resolution outcome, and satisfaction (5-point Likert scale).
   - **Administration:** Trained surveyors conducted 500 telephone interviews (100 per state), yielding a response rate of 78%.

Data Analysis

- **Quantitative:** SPSS was used to compute descriptive statistics (frequencies, means, standard deviations) and cross-tabulations (e.g., satisfaction by age group, education level, language served). Inferential tests (Chi-square for categorical variables; ANOVA for mean comparisons) examined statistically significant differences across states and demographic cohorts.
- **Qualitative:** Thematic analysis distilled emergent categories around linguistic training, software limitations, and feedback loops. Investigator triangulation ensured coding reliability (inter-rater agreement > 0.85).

Ethical Considerations

- **Consent & Confidentiality:** Written consent was obtained for operator interviews; oral consent for user surveys. All data were anonymized.
- **IRB Approval:** Secured from the Institutional Review Board of [Anonymous University].
- **Data Security:** Digital recordings and transcripts stored on encrypted drives; access restricted to the research team.

RESULTS

Regional-Language Options in IVR Menus

- **Availability:** On average, 60% of helplines included at least one regional-language prompt. However, only 35% offered callers more than one regional option. Tamil Nadu's TN-1100 helpline led with four languages (Tamil, Telugu, Kannada, Hindi), whereas Odisha's state line supported Oriya only in initial menus.
- **Menu Structure:** Two-level trees predominated (70%), with first level for language selection and second for service categories. Only 20% of systems extended regional support beyond the second tier; the remainder defaulted to Hindi/English at deeper levels.

Live-Agent Proficiency

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- **Training vs. Practice:** Despite manuals prescribing 40 hours of basic language training, only 25% of sampled agents demonstrated competency in handling unscripted, complex queries in a regional tongue. Supervisors cited high attrition and lack of refresher courses as barriers to retention.
- **Agent Confidence:** Agents self-rated their language proficiency at 3.1 out of 5 on average; observed performance during ride-along assessments scored lower (2.7/5), indicating a gap between perceived and actual ability.

User Survey Outcomes

- **Language Preferences:** 82% preferred discussing in their mother tongue; 13% accepted Hindi; 5% opted for English.
- **Ease of Use:** 45% rated IVR navigation as "easy," 30% "moderate," and 25% "difficult." Difficulty skewed heavily toward respondents over age 50 and those with less than primary education ($p < 0.01$).
- **Resolution Rates:** 55% reported successful query resolution on first call. Of the 45% unresolved calls, 60% attributed failure to language barriers (e.g., menu confusion, agent inability).
- **Satisfaction Scores:** Mean overall satisfaction was 2.8 (SD = 1.1). Those served in their mother tongue reported significantly higher satisfaction ($M = 3.7$) than those restricted to Hindi/English ($M = 2.2$; $F[1,498] = 112.4$, $p < 0.001$).

Thematic Insights from Operator Interviews

1. **Insufficient Linguistic Training:** Agents relied on phonetic transliterations rather than true immersion, leading to mispronunciations (e.g., "Janaadhar" for "Janādhar") and caller confusion.
2. **Software Deficiencies:** Legacy IVR platforms lacked robust Unicode rendering, causing menu text to appear garbled on administrative consoles. Text-to-speech engines were calibrated primarily for Hindi, producing awkward intonation in regional languages.
3. **Lack of Feedback Loops:** Only 10% of helplines solicited post-call feedback on language support; none tied responses to performance appraisal or system upgrades.

State-Level Comparisons

- **Tamil Nadu:** Highest linguistic coverage (70% bilingual agent availability) and highest satisfaction ($M = 3.4$).
- **Maharashtra & Karnataka:** Moderate coverage (50–55%) but noted inconsistencies in dialectal variants.
- **West Bengal & Odisha:** Lowest coverage (< 45%) and lowest satisfaction ($M = 2.5$).

CONCLUSION

This comprehensive analysis demonstrates that, prior to MyGov's 2014 inauguration, India's government helplines fell short of truly inclusive linguistic accessibility. Although 60% of systems offered basic regional-language menus, these were confined to limited menu depths, lacked dialectal nuance, and rarely extended to live-agent support. User satisfaction hovered below the midpoint, with vulnerable populations—elderly, low-literacy, rural—disproportionately impacted. Thematic interviews reveal structural shortcomings: inadequate, one-off training programs; legacy telephony infrastructure ill-suited for Unicode and regional phonetics; and the absence of systematic feedback-to-action pathways.

Addressing these deficits requires a multi-pronged strategy:

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1. **Advanced IVR with NLP:** Deploy next-generation platforms capable of free-speech recognition and dynamic menu generation in major regional tongues.
2. **Ongoing Multilingual Training:** Institute recurring language-proficiency certifications, combining classroom learning with real-call simulations and dialect coaching.
3. **Integrated Feedback Mechanisms:** Embed brief, language-specific post-call surveys and tie results to service-level agreements and vendor contracts.
4. **Unicode-Compliant Infrastructure:** Migrate to text-to-speech engines optimized for regional phonetics and ensure administrative consoles accurately render local scripts.

Implementing these measures will lay the groundwork for genuinely inclusive digital governance. Moreover, the pre-MyGov baseline established here affords policymakers a clear metric for evaluating the success of subsequent initiatives. By bridging linguistic divides, government helplines can fulfill their mandate: providing timely, understandable, and equitable access to all citizens, regardless of mother tongue.

SCOPE AND LIMITATIONS

Scope

- Focuses exclusively on telephone-based government helplines in five major states during 2013, capturing both central and state-run services.
- Addresses both IVR and live-agent modalities, offering a comparative lens on automated versus human interactions.
- Employs a mixed-methods design, triangulating content analysis, operator interviews, and user surveys for comprehensive insight.

Limitations

1. **Temporal Restriction:** Data reflect conditions only up to December 2013; rapid post-2014 technological and policy shifts are outside this study's purview.
2. **Geographic Coverage:** Although representative, the five selected states do not encompass smaller states or union territories, which may exhibit distinct linguistic ecologies.
3. **Survey Bias:** Reliance on self-reported satisfaction and recall may introduce response biases; some callers may overstate negative experiences due to frustration at the time of survey.
4. **Operator Sample Size:** Thirty interviews provide depth but may not capture the full heterogeneity of agent experiences across all shifts and regions.
5. **Technological Evolution:** Recommended solutions—particularly NLP-based IVR—are subject to rapid advancements; ongoing reevaluation will be necessary to ensure continued efficacy.

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