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Towards federal statistics

D4D Nepal Strategic Action Plan

report



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Executive summary

This action plan is part of a data landscaping exercise conducted under the Data for Development (D4D) in Nepal Programme, Phase II. It is accompanied by a diagnostic report which provides the evidence for the recommendations presented here.

The Constitution of Nepal 2015 is an ambitious and aspirational undertaking to create representative and accountable institutions across 7 provinces and 753 local governments. Establishing evidence-informed decision-making at this level is a substantial challenge. Four-fifths (80%) of Nepal's population live in rural areas¹ now governed by 460 rural municipalities. For constitutional change to be successful it is these bodies, just as much as their richer counterparts in the metropolitan cities, that need to be empowered in both the production and use of data.

Before 2015, Nepal's national statistical system was a highly centralised, top-down administration relying to a large extent on small sample surveys. Federal government requires a new federal statistical system where responsibilities, particularly for administrative data, are shared across spheres of government.

It is not possible for local governments to meet all the data responsibilities of the Local Government Operations Act in the short term. Improvements to core systems – public finance, civil registration, health, education and disaster risk management – should therefore be prioritised. Success with this will create the solid foundations of a data infrastructure as well as a culture of data use across all spheres.

Building capacity at the local level requires a four-pronged approach. An integrated cross-sectoral initiative should be undertaken to build literacy. Each municipality should have an ICT officer who maintains infrastructures and provides technical support to sectoral information systems. But departmental government officials, not ICT officers, should be responsible for the content of information systems and supported to manage this. This support can be provided by line ministry and statistical technicians located in the now-defunct district offices so long as they now fall under the jurisdiction of the District

Coordination Committees which are answerable, through the District Assembly, to local government.

The constitution gives local government the autonomy to make its own decisions in a number of sectors as to how data is collected and what data is shared. The establishment of a national indicator framework, which defines indicators independently of their means of collection, would bridge the gap between local autonomy and central standards. A single, comprehensive framework that encompasses constitutional and national development as well as the Sustainable Development Goals would rationalise duplication that takes place across systems today, as well as provide a common means of prioritising data collection efforts.

A federal statistical system requires determined leadership. For the Central Bureau of Statistics (CBS) to perform this duty effectively it needs to be empowered with not only the necessary legal powers, but also political authority. Further advocacy is needed around the Statistics Bill to ensure that both the CBS and the National Statistics Council have the appropriate mandates. This legislation would be supported by a roadmap addendum to the National Strategy for the Development of Statistics, which lays out a more detailed plan for how data infrastructures will match other transitions in governance in meeting the aspirations of the constitution.

Abbreviations

BIPAD	Building Information Platform Against Disaster
D4D	Data for Development
CBS	Central Bureau of Statistics
IEMIS	Integrated Education Management Information System
SDG	Sustainable Development Goal
SuTRA	Sub-national Treasury Regulatory Application

Introduction

The Data for Development (D4D) in Nepal Programme, Phase II, aims to support data driven policymaking through demand-driven activities that are aligned with government needs and plans. There is a need to strengthen local data and information ecosystems that support these processes. In Nepal's new federal structure, with data production functions having been provided by the new constitution to provincial and local governments, it is critical to support the development of strong local data and information ecosystems.

Development Initiatives has been tasked to perform a diagnostic study of the current data landscape in the light of constitutional changes and to propose a plan of action – a suite of recommendations – that can be fed into the broader programme.

The evidence underpinning this action plan can be found in the accompanying report, *Data Landscape Diagnostic*. Its findings are summarised here.

The Constitution of Nepal 2015 has empowered 7 provinces and 753 local governments to plan and manage their day-to-day operations across a wide range of responsibilities, with the autonomy to decide, for the most part, the means of data collection, production and sharing. This has major implications for both federal and local government, as well as for the remaining district infrastructures.

- For federal government
 - The National Strategy for the Development of Statistics lacks clear plans to build local capacity and strengthen administrative data systems.
 - There is no clear data governance framework for balancing the demands of local autonomy and centralised control.
 - The Central Bureau of Statistics (CBS) has not yet been granted enough political authority or human capacity to fully lead a new federal statistical system.
 - A culture of evidence-informed decision-making driven by established norms of data sharing is missing at all levels of government.

- For local government
 - Most local governments, in particular the 460 rural municipalities, lack sufficient financial resources and technical and human capacity to meet their requirements to collect and use data as outlined in the Local Government Operations Act.
 - Small sample surveys, the traditional products of the CBS, cannot meet the needs of local government and the administrative systems required to produce local data: these are generally under-used and produce poor data.
 - What little data gathering is done at local level is primarily done for the purpose of upward reporting, and not for local use.

National statistics are best produced within a governance framework that manages the entire data life cycle from design through collection, storage, analysis to statistical production and distribution. Centralisation, driven by standardisation, is the cornerstone of most of these ecosystems. Under the new constitution the number of local government institutions has increased tenfold, making both centralised control and quality assurance difficult. The autonomy granted to local governments to be selective about the way data is collected and shared makes standardisation difficult.

This action plan provides a set of broad, high-level recommendations to address these challenges.

Federal statistics

The scale of the aforementioned challenges requires a new approach to the development of national data infrastructures and the production of statistics that are of use not only to the federal and provincial spheres, but to local government as well. What is needed is a federal statistical system that respects the aspirations of the constitution and meets the needs of all planners and decision-makers.

With the exception of the 10-yearly census,² most statistics produced by the CBS are derived from surveys. Sample sizes allow data from household surveys to be disaggregated geographically by province but no further:³ The cost of increasing sample sizes to produce municipal statistics is beyond exorbitant.

These statistics will continue to play an important role in national development planning, and as a quality check for other data sources, but producing the information needed for all spheres of government to operate is going to require major improvements in the deployment of existing administrative systems and registries.

This is a mammoth task. Firstly, because most local governments lack the capacity to maintain the range of systems required. Secondly because the constitution gives them, in many instances, the right to choose both what systems to use and what data to share.

The constitution⁴ assign powers and responsibilities across the three spheres of government. Civil registration, health, agriculture and disaster management, for example, are delegated to all three, while basic and secondary education are the responsibility of local government.

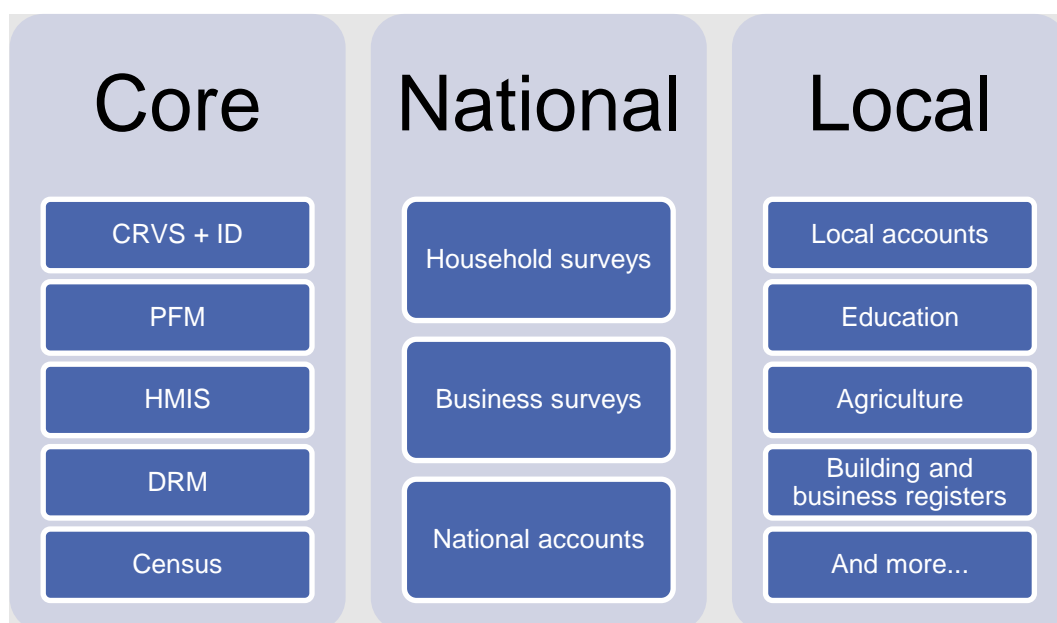
The Local Government Operations Act is more specific in detailing a range of data collection and record-keeping responsibilities for local government.⁵ Some of these are essential for national systems, such as the registration of births – which is critical for the constitution's aspiration to develop an integrated national identity management information system.⁶ Many of the responsibilities, such as maintaining a building register, a business register and

local tax records, cover data that is only relevant locally. Others, such as public financial management, contain a mix: data on how finances received from central government are budgeted for and spent must be reported upwards while much of the detail of day-to-day accounting is of little use outside local government.

A pragmatic approach to bridging these needs is a federal statistical system that consists of three layers.

- A core consisting of the systems critical to the integrated functioning of all spheres of government and whose use is mandatory.
- A federal layer, built on surveys and administrative systems used at national and provincial level, that can meet many national planning needs and global reporting commitments.
- A local layer where local government collects and processes data for its own use, sharing only those indicators of relevance to the monitoring of national and global development plans.

Figure 1. Three tiers of a federal statistics system



Notes: CRVS: civil registration and vital statistics; DRM: disaster risk management; HMIS: health management information system; ID: identification; PFM: public financial management.

Keeping the number of core systems to a minimum, and focusing investments and capacity building on these systems, has the short-to-medium term benefit of building a solid foundation on which other systems can be added as the

data ecosystem matures. If all 460 rural municipalities can, over the next few years, build on a successful 2021 census and deliver on improved birth registration, fiscal accountability on federal financing, performance data from all health facilities and active sharing of data relating to disaster risk reduction and management, the trajectory of constitutional change will have been secured.

Local capacity

Four-fifths (80%) of the population of Nepal live in rural areas under the administration of 460 municipalities. While many of these are fiercely proud of both the autonomy and democracy that the constitution has delivered for them, they are equally challenged by a lack of resources and capacity to handle data. Some particular challenges are:

- There is no culture of data use and evidence-informed decision-making.
- As a result, levels of data literacy are low and investment in data is not seen as a priority.
- Internet access is weak in many areas.⁷
- Technical infrastructure and capacity are patchy.
- Where ICT personnel are available, they are not familiar with the sectoral subject matter, and where sectoral officials are present, they may not be familiar with the information system.⁸
- Capacity building normally takes place in vertical sectors and technical and training resources are rarely shared across government.⁹
- The Ministry of Federal Affairs and General Administration has no mandate to deal with data and the CBS has no mandate to deal with local government.

Dealing with these challenges is critical if local government is to develop. For each sector to tackle these problems separately will be a mammoth, expensive project. The following, four-part, cost-effective approach is proposed.

Firstly, a **cross-sectoral campaign** geared to building a culture of data use, recognising the importance of evidence-informed decision-making, improving data literacy in general and stimulating data demand would increase the possibility of a common approach being adopted across government. This may not be part of the Ministry of Federal Affairs and General Administration's brief but it is well positioned, with support from the CBS, to lead an effort like this aimed at all producers and users of data, both official and non-official.

Secondly, building on the work of the Local Government Community Development Programme, and now the Provincial and Local Government Support Programme, each local government should employ an IT officer

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whose job is to maintain the **ICT infrastructure** for all departments. They should be responsible for the technical maintenance of all information systems used, **but not** for the content,¹⁰ which should be the responsibility of departmental subject matter experts.

Thirdly, local government officials responsible for public financial management, civil registration and vital statistics, health, education, disaster risk management and the like should be trained and empowered to be **responsible for the content** – both collection and use – of their respective information systems.

Fourthly, the pre-constitution national statistical system relied, top-down, on district statisticians¹¹ and line ministry district offices¹² managing the core administrative systems. The continued existence of these infrastructures poses a paradox. On the one hand, given that the constitution has abolished district government, they are seen to be an attempt by central government to undermine local autonomy. On the other, from a purely technical point of view, national data infrastructures depend on them.

Under the constitution District Assemblies, each supported by a **District Coordination Committee**, are bottom-up, representative institutions empowered to:

- coordinate among the rural municipalities and municipalities and provinces within the district
- **carry out monitoring** so as maintain balance in development and construction works
- maintain coordination among the federal and provincial government offices and village council and municipality within the district
- perform other tasks as provided for in the provincial law.

It should therefore be possible to repurpose the technical resources currently deployed at district level to support both the district assemblies **and** their local government constituents. Under this arrangement, each district coordination committee systems support unit would provide assistance to, on average, 10 local governments. Moving these services up to provincial level will result in each department being required to support nearly 100 local governments. Even if provincial governments have the financial, technical and human capacity to deliver this service, they would be hard pressed to deliver efficient support to such a large client base.

Prioritising core systems

As the diagnostic report clearly illustrates,¹³ simultaneously meeting all the responsibilities laid out in the Local Government Operations Act will be a tall order for many municipalities. Similarly, for both central government and its development partners, finding the resources to deliver on all systems at the same time is unrealistic. By concentrating on just five systems through focused investment and support, it should be possible to build a solid foundation for local data infrastructures to grow and for local democracy to become accustomed to evidence-informed decision-making.

Preparations for the **2021 census** appear to be in a healthy position¹⁴ and a successful exercise is predicted. There is a great opportunity for the results of the census to be turned around as quickly as possible and shared with local government, with support on how they can be used. The census will represent a baseline for many local government activities and should be promoted as widely as can be.

Despite the training of some 5,000 officials¹⁵ (and exaggerated claims of success) it appears that many local governments are doing the absolute minimum in their use of the Sub-national Treasury Regulatory Application (**SuTRA**). The reasons for this are more likely to be political and bureaucratic rather than technical. A clearer distinction between what is absolutely required to manage and account for central funding, and what is needed for efficient local administration, is likely to produce better results. Given the scale of central funding received by local government, it is critical that SuTRA is seen as a mutually beneficial system and not a top-down imposition (as it appears to be now).

Establishing a fully functional national identity management system, with its many beneficial spin-offs, is a key aspiration of the constitution.¹⁶ Getting **birth registration** from around 75%¹⁷ closer to 100% should be the first objective. Firstly, investment in digital data capture will be key to this. Costly paper-based processes should be phased out as mobile data collection becomes more cost effective. Secondly, a ward-level education campaign supporting registration officials and their communities to recognise the benefits of vital registration should reap results.

The **health management information system (DHIS-2)** platform is robust and in widespread use.¹⁸ Three investment opportunities should be prioritised to further strengthen it: extending digital data capture to as many health facilities as possible, incentivising private health facilities to report (in return for access to all local data) and encouraging use of the data by local government planners and auditors.

While constitutionally not a core system, the **Integrated Education Management Information System (IEMIS)** is also worthy of prioritisation because of its successes in deploying to an impressive number of schools in rural as well as urban areas.¹⁹ It is worth noting that the likely reason for its success is the robust simplicity of its design: internet-linked Excel spreadsheets that can be managed offline and shared when possible. The big challenge is to stimulate the active use of IEMIS data by local governments that are constitutionally responsible for developing primary and secondary education. It is this use that will drive improvements in the coverage and accuracy of its data.

Nepal has had, and will likely continue to have, more than its fair share of disasters caused by natural hazards. **Disaster risk management**, perhaps most importantly in remote under-resourced mountainous localities, is thus a priority. The existing Disaster Risk Reduction Portal is a robust, if incomplete, system. The new Building Information Platform Against Disaster (BIPAD) system is more comprehensive and more elegantly designed but, despite its aspirations, is difficult to deploy in under-resourced municipalities.²⁰ It is hopefully not too late for the best of both systems to be integrated into a solution that will work for all communities.

Improving administrative systems

Government departments in all spheres clearly need a range of management information systems beyond the core already mentioned.²¹ These, for the most part, already exist at national level and can now be rolled out with little difficulty to the provincial sphere, but have always, even before 2015, faced challenges in being deployed throughout the country.

Improving local capacity, both technical and human, as discussed earlier, is an obvious part solution.

The constitution has, however, added a further complication in that in many instances local governments now have the right to choose what systems to use and what data to share. From a data integrity point of view this is disruptive: it makes sense for everyone to use the same system. However, needs do differ between, for example, metropolitan and rural municipalities.

The reason for local governments making their own choices is more likely to lie in their dissatisfaction with existing systems: either in their complexity or lack of flexibility to be fitted in to local needs. This is, at heart, a design problem. The adoption success of the IEMIS compared with the deployment challenges faced by the new BIPAD illustrate this. Smart-looking systems that are optimised for use in Kathmandu and rely on complex architectures, innovative technologies and constant bandwidth are likely to be outperformed by robust, low-technology solutions when deployed in the local sphere.

Within a federated landscape, centrally maintained systems need to compete for the approval of local governments. They can do so by better understanding the needs of their users and adapting to appropriate levels of both technology and content. Administrative systems will flourish best through a two-pronged approach: a bottom-up improvement of local infrastructure and capacity and a top-down lightening of the technical overheads required by central systems.

A national indicator framework

Nepal, like every country, has a need for a coherent, comparable set of federal statistics to plan, manage and monitor its national development plans and the Sustainable Development Goals (SDGs). The superset of information systems currently in use by local governments produce a wide range of disparate and incomplete data that poses a challenge to the CBS. The CBS does not have the mandate to specify what information systems government should use, but it should have the authority, on behalf of the government, to specify what data is required and, in a world of limited resources, which should be prioritised.

If, for example, the government agrees that meeting SDG target 2.4 on sustainable food production is a key priority, the CBS requires monitoring data on the proportion of agricultural area under productive and sustainable agriculture. Local government should provide this irrespective of its means of collection and the CBS should be able to sense check this local administrative data against the more highly aggregated survey data.

A national indicator framework, coordinated and managed by the CBS, would define all data needs²² independent of their means of collection. It would provide standard definitions and methodologies for all indicators. It would provide a single, integrated resource for government-wide agreement on target monitoring.

These standards do, for the most part, exist in a variety of policy documents and technical manuals. Integrating them into a single framework would create the glue that a federal statistical system needs for a coherent approach.

Data leadership

The more federated a system, the greater the challenges of coordination and control. This applies as much to data and statistics as it does to any other function of government.

For the CBS to fulfil its responsibilities in this regard, its leadership of the federal statistical system, fully supported by the National Statistical Council, needs to be properly recognised. This should involve it being provided with both the legal and political authority to coordinate, lead (which does not mean dictate) and support data collection and statistical production across all spheres of government. Such a role goes far beyond its traditional responsibilities, recognised symbolically in the proposal to rename it the National Statistics Office. It would therefore require greater investment in an enlarged cohort of professional business analysts and statisticians, and greater political authority for its leadership to be respected across government.

The CBS will need to move beyond its traditional roles of data collection and statistical production. The nurturing of provincial leadership, district coordination and local capacity will require both entrepreneurial initiative and political authority.

Unfortunately, the current draft of the Statistics Bill fails to deliver this. It has the CBS supporting the National Statistical Council, rather than the other way around.²³ A disempowered national statistics office that continually needs to seek approval from a large and unwieldy committee is not the most agile solution for meeting the challenges it faces. Both the timetable and content of the new Statistics Bill appear to be in flux and there is hopefully still an opportunity to influence its outcome.

In addition to a new Statistics Act, the National Strategy for the Development of Statistics (NSDS) is a key instrument for the development of national statistics. It is unfortunate that the final 2019 document has apparently dropped a lot of the detail contained in an earlier draft. The function of the NSDS is to outline strategy, not tactics, but in its current form it offers a suite of generic solutions that do not reflect the specific challenges it recognises. It is thus open to a traditional, conservative interpretation that will hamper the

institutional innovation that is needed to manage federal statistics. An accompanying road map addendum could be a solution to adding a clearer set of objectives.

Nepal's ambitious constitution reflects the democratic aspirations of all its people and the institutions that serve them. The path towards a federal statistical system is not primarily a technological challenge, but one of institutional development implemented through purposeful leadership.

Notes

¹ World Bank. Rural population (% of total population) – Nepal.

<https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=NP>

² The CBS has also completed its first National Economic Census and seven agricultural censuses.

³ Estimated district-level disaggregations are also possible in certain circumstances.

⁴ Schedules 5–9 of the 2015 constitution.

⁵ Unofficial translation of the act provided by The Asia Foundation.

⁶ Section 51.f.7 of the 2015 constitution.

⁷ See diagnostic report, section 5.1.

⁸ See diagnostic report, section 5.2.

⁹ The Nepal Administrative Staff College is making impressive progress in building cross-sectoral capacity but the scale of the challenge remains daunting.

¹⁰ For example, IT officers have been expected to manage systems such as disaster risk management without any experience of the meaning of the content.

¹¹ The CBS maintained 33 statistics offices across the 75 districts.

¹² Including civil registration and vital statistics, health, education, agriculture and public financial management.

¹³ See diagnostic report, section 4.1.

¹⁴ See diagnostic report, section 6.1.

¹⁵ See diagnostic report, section 7.3.

¹⁶ Section 51.f.7 of the 2015 constitution.

¹⁷ See diagnostic report, section 6.2.

¹⁸ See diagnostic report, section 8.2.

¹⁹ See diagnostic report, section 9.2.

²⁰ See diagnostic report, section 12.

²¹ See diagnostic report, section 4.3.2.

²² In a number of countries, including Nepal, SDG monitoring – particularly upstream reporting to global institutions – has tended to become the driver of national indicators rather than the SDGs being integrated into national development plans. The SDG focus on the monitoring of targets often overlooks the data needed to meet the goals. Monitoring maternal mortality is one thing, while managing the data needed to drive the services that will reduce mortality is another.

²³ Unofficial translation of the Statistics Bill, sections 17 and 19.