

UNIT 5

Case Studies (Nepal and India)

(16 Hours) — E-Governance (CACS409)

⚠ Please Note — May Contain Errors

These notes were prepared with AI assistance and **may contain errors, omissions or outdated information** (names, dates, figures, acronyms and project details in particular). Please take care: cross-check everything against your prescribed textbook, class notes and official sources before relying on it for exams or assignments.

Note: Case-study details (dates, figures, project names) differ between sources and change over time. The points below summarise commonly cited information — verify against your textbook (e.g. Prabhu, E-Governance: Concepts and Case Studies) and class notes.

5.1 Case Study — Nepal

A. E-Governance Master Plan of Nepal

Nepal's e-government planning was driven by the IT Policy 2000, the Electronic Transactions Act 2063 (2008) and the **e-Government Master Plan (e-GMP)** prepared in 2006 with international support. The plan set out how ICT should be used to improve public service, and was later followed by the National ICT Policy 2015 and the **Digital Nepal Framework (2019)**.

- **Vision (e-GMP):** an efficient, transparent and citizen-centred government that uses ICT to deliver services.
- **Main components:** e-government infrastructure (government network, data centre, shared services), applications and services, legal and regulatory framework, human resource development, institutional arrangements and awareness.
- **Approach:** phased implementation — short-term quick wins, medium-term integration and long-term sustainability; priority to citizen-facing and revenue-related services.
- **Digital Nepal Framework:** identifies 8 sectors (digital foundation, agriculture, health, education, energy, tourism, finance, urban infrastructure) with many initiatives to drive digital transformation.
- **Institutions:** Ministry of Communication and Information Technology (policy), Department of Information Technology (implementation), National Information Technology Center (NITC), Government Integrated Data Centre (GIDC), Office of the Prime Minister and Council of Ministers (coordination).

Challenges and Lessons

- Slow implementation and weak coordination among agencies; duplication of systems.
- Limited ICT capacity and rural connectivity; digital literacy gap.
- Dependence on donor-funded pilots; sustainability of operation and maintenance.
- Need for interoperability, data sharing, cyber security and a unified digital ID.

B. E-Governance in Local Government of Nepal

Under the Constitution of Nepal (2015), Nepal has 753 local governments (metropolitan and sub-metropolitan cities, municipalities and rural municipalities) which provide many frontline services under the Local Government Operation Act 2074 (2017). Local governments are therefore the point where most citizens meet the state, making e-governance there very important.

Area	Examples of e-governance use at the local level
Vital registration	Online registration of birth, death, marriage, migration and divorce (through the Department of Civil Registration).
Social security	Beneficiary databases for allowances; linking to the National ID.
Revenue and tax	Property and business tax management; online payment.
Planning and budget	Electronic planning and budgeting systems; expenditure through treasury systems such as SuTRA.
Information	Websites, citizen charters, public notices, social-media pages, municipal apps.
Grievance	Complaint boxes, hello-mayor style hotlines and online grievance portals.
Service centres	Ward-level help desks / information centres for citizens without digital access.

- **Benefits:** faster ward-level services, less travel to district offices, more transparency in spending.
- **Issues:** lack of trained IT staff in rural municipalities, unreliable internet and electricity, limited budgets, separate software at different levels, weak data-sharing between federal–provincial–local layers.

C. Nagarik App

The **Nagarik App** is a mobile application developed under the Government of Nepal (by the Department of Information Technology) to give citizens one place to access government services and keep official documents in digital form. It reflects a move to integrated, mobile-based, citizen-centric service delivery and supports the Digital Nepal vision.

- **Functions (commonly cited):** digital storage of documents such as citizenship, licence and other IDs; applying for or tracking certain services; paying some bills and fees; notifications; connected services of several agencies.
- **Uses:** access from anywhere, fewer physical documents, faster verification, link with the National ID system.
- **Challenges:** smartphone and internet access, digital literacy, security and privacy of stored documents, integration with legacy systems, keeping services up to date.

Example 5.1 — Short question

State two benefits and two challenges of the Nagarik App.

Solution

Benefits: (1) citizens can hold and show official documents digitally and use some services from home; (2) multiple government services in a single citizen-centred interface.

Challenges: (1) digital divide — people without smartphones/Internet; (2) security, privacy and integration with various agency databases.

5.2 Case Study — India

India's e-governance grew from computerisation by the National Informatics Centre (NIC) to the National e-Governance Plan (NeGP, 2006) with Mission Mode Projects (MMPs). The cases below are the ones listed in the syllabus. Many are from Andhra Pradesh and Karnataka, which were early leaders.

1. NICNET — Role of Nationwide Networking in E-Governance

NICNET is the satellite-based national computer-communication network set up by the National Informatics Centre (NIC), founded in 1976, under the Government of India. It links the central government with state capitals and district headquarters, and provides a common network for e-governance applications. It was one of the first large government networks in the developing world.

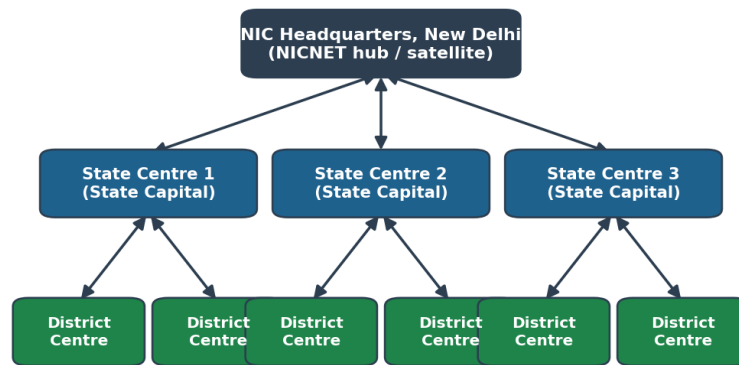


Figure 5.1 — Hierarchical structure of NICNET (HQ → state centres → district centres)

- **Structure:** NIC headquarters, state/UT centres and district centres connected through VSAT/satellite and terrestrial links; later expanded with optical fibre (NKN).
- **Services:** e-mail, web hosting, video-conferencing, data centres, database services, application development (e.g. district information systems, land records).
- **Role:** provides connectivity, shared infrastructure and technical support so that departments need not build separate networks; spreads ICT culture in administration.
- **Benefits:** nationwide coverage, standardisation, cost saving, quick information exchange between centre and districts.

2. Collectorate 2000 (Computerisation of District Administration)

The district **Collectorate** (office of the District Collector) is the main unit of district administration in India. The “Collectorate 2000” type projects aimed at computerising its many functions so that citizens could get services and information faster.

- **Functions covered:** land records and revenue, certificates, arms and other licences, pensions, relief, election lists, grievances, monitoring of schemes, and the Collector’s office files.
- **Approach:** NIC and the state introduced a common software suite and network among the Collectorate, sub-divisions and taluks, and tracked the status of applications.
- **Benefits:** shorter turnaround time, transparency, better monitoring by the district head, reduction of repeated visits.

3. CARD — Computer-aided Administration of Registration Department (Andhra Pradesh)

Registration of property documents (sale deeds, mortgages, etc.) was slow, document-based and prone to corruption. **CARD**, started in Andhra Pradesh in 1998, computerised the Registration Department's sub-registrar offices.

- **Features:** computerised data entry, standard templates and scanned documents, computerised valuation (market-value) guidelines, receipt and encumbrance certificate (EC) generation, central database.
- **Results:** registration completed in hours instead of days; encumbrance certificates in minutes; less discretion and fewer middlemen; increased revenue.
- **Key lesson:** process re-engineering plus visible service improvement, backed by political support and staff training, created acceptance.

4. Smart Nagarpalika — Computerisation of Urban Local Bodies (Municipalities)

Nagarpalika means municipality. “Smart Nagarpalika” refers to computerising municipalities (urban local bodies) so that routine civic work is done by software with a citizen counter.

- **Modules:** property-tax assessment and collection, water charges, trade licences, birth/death registration, building-plan approvals, grievance handling, accounts and payroll.
- **Benefits:** fewer errors in tax records, faster collection, single-window citizen counters, transparent bills and receipts, management information for the mayor/commissioner.
- **Challenges:** data conversion from old registers, trained staff, connectivity for small towns, standardisation across states.

5. National Reservoir Level and Capacity Monitoring System

This NIC-supported system collects and publishes data about water levels, storage and capacity of major reservoirs across India, usually in coordination with the Central Water Commission and state irrigation departments.

- **Data:** current level, live storage, capacity, inflow/outflow, rainfall and comparison with previous years.
- **Uses:** flood forecasting and drought management, irrigation and hydro-power planning, drinking-water supply, and decisions on releasing water.
- **Benefits:** timely, reliable information for administrators and the public; an example of a G2G and G2C information application.

6. Computerisation in Andhra Pradesh State Trading Corporation and Ekal Seva Kendra

This topic combines an internal government-corporation application with a citizen-service one. (Sources describe these projects in somewhat different ways, so also check your notes.)

- **State trading corporation computerisation:** automation of procurement, stock, sales, accounts and MIS in a state-owned trading organisation — better control of inventory, reduced delays and leakage, and quick management reports.
- **Ekal Seva Kendra (single-service centre):** a one-stop counter where citizens obtain many services (applications, payments, certificates) from one place instead of visiting several departments. Back-office integration provides the information needed at the counter.
- **Benefits:** single window, shorter queues, transparency and customer-friendly service.

7. Sachivalaya Vahini — E-Governance in the Secretariat (Andhra Pradesh)

The **Secretariat** is the central office of state government where ministers and senior officials work and policy files are processed. **Sachivalaya Vahini** (secretariat network) connected the secretariat departments with each other and with heads of departments and districts, and computerised file movement.

- **Features:** LAN/WAN network, e-office and workflow for files, e-mail, video-conferencing, status tracking of files and monitoring of decisions.
- **Benefits:** faster decisions, less paper, accountability of officials, better monitoring of government programmes by top leadership.
- **Issue:** requires change of working culture and training of all officers.

8. Bhoomi — Computerisation of Land Records (Karnataka)

Bhoomi (“land”) is Karnataka’s project to computerise land records. Earlier, village accountants maintained handwritten records (*Record of Rights, Tenancy and Crops — RTC*), which led to delays, errors and bribes when farmers needed a copy.

- **Scale:** records of roughly 20 million plots owned by about 6.7 million farmers in all taluks (as commonly cited).
- **Process:** records were digitised; kiosks at taluk offices issue RTC copies for a small fee after biometric/authentication of the operator; mutation is processed by computer; farmers can also use the Internet or kiosks.

- **Benefits:** an RTC copy in minutes, reduced corruption and discretion, a land-records database useful for banks (loans), planning and courts.
- **Lessons:** clear legal sanction for digital records, strong political support, user-friendly kiosks, training of staff, and public–private partnerships for operations.

9. IT in the Indian Judiciary

India has a huge backlog of pending court cases. The **e-Courts Mission Mode Project** under NeGP used ICT to improve court administration.

- **Components:** computerisation of district and subordinate courts, Case Information System (CIS), e-filing and e-payment, case status on the e-Courts portal, judgments online, video-conferencing for hearings, and the **National Judicial Data Grid (NJDG)** for case statistics.
- **Benefits:** case tracking by lawyers and litigants, better scheduling, data for monitoring pendency, lower cost and time.
- **Challenges:** digital literacy of court staff and lawyers, connectivity, data security, legal acceptance of electronic evidence.

10. E-Khazana — Computerisation of Government Treasuries (Andhra Pradesh)

The **treasury** handles government receipts, payments, salary disbursement and accounts. **E-Khazana** (“khazana” = treasury) computerised treasury operations in Andhra Pradesh.

- **Features:** electronic bills, payment authorisation and cheque/EFT, online receipts, accounting and budget control, daily MIS for the finance department, links with the Accountant General and banks.
- **Benefits:** faster and more accurate payments, better financial control, reduced fraud, real-time expenditure data.

11. E-Governance in the Offices of the Director General of Foreign Trade (DGFT)

The **DGFT** regulates India’s foreign trade policy. Exporters and importers earlier visited its regional offices repeatedly for licences and registrations.

- **Services online:** Importer–Exporter Code (IEC), licences/authorisations, export promotion schemes, applications and payments, status tracking.

- **Technology:** electronic data interchange (EDI), digital signatures, linkages with Customs, banks and other agencies.
- **Benefits (G2B):** faster approvals, transparency, reduced transaction cost for trade, minimal physical contact.

12. PRAJA — Rural e-Seva: A New Paradigm in Citizen Services

PRAJA (“people”) was a rural citizen-service initiative in Andhra Pradesh to take e-governance services to villages through shared access points (rural e-seva centres), usually run by local entrepreneurs.

- **Services:** certificates, applications, bill payments, land-record copies, market prices, grievance filing and other G2C services at the village level.
- **Model:** public–private partnership; locally run kiosks or centres with government back-end support; service charges for sustainability.
- **Benefits:** reduces travel to the town, creates local employment and bridges the rural digital divide.

13. E-Panchayat — Electronic Knowledge-based Panchayat

Panchayats are the village-level institutions of self-government. The **e-Panchayat** Mission Mode Project aimed at computerising panchayats’ planning, accounting, monitoring and service delivery.

- **Application areas:** planning and budgeting, accounts (e.g. PRIASoft), asset and beneficiary registers, certificates, scheme monitoring, panchayat websites and information kiosks.
- **Knowledge-based:** access to agricultural, health, market and weather information for villagers through the panchayat.
- **Benefits:** transparency in spending, better local planning, improved service to villagers, stronger local democracy.
- **Challenges:** connectivity, power, trained staff, local language software.

14. General Information Services of the National Informatics Centre (NIC)

NIC provides a range of information services to government and citizens beyond its network and software work.

- Government portals and websites (e.g. national portal, ministry websites), hosting and web-service support.

- District information systems, state portals, directories of officials and departments, census and statistical information.
- Digital libraries, online repositories of laws, notifications and forms; e-mail and messaging services for government employees.
- Support to e-governance projects: consultancy, training, application development and data-centre services.

Project	State / owner	Domain	Main benefit
NICNET	NIC (India)	Network	Nationwide connectivity
Collectorate 2000	District admin	Administration	Faster district services
CARD	Andhra Pradesh	Property registration	Minutes/hours instead of days
Smart Nagarpalika	Urban local bodies	Municipal services	Tax, licences, certificates
Reservoir monitoring	NIC / water bodies	Water resources	Real-time storage data
Sachivalaya Vahini	Andhra Pradesh	Secretariat	E-file / workflow
Bhoomi	Karnataka	Land records	RTC in minutes
e-Courts	Judiciary	Justice	Case tracking, NJDG
E-Khazana	Andhra Pradesh	Treasury	Accurate, fast payments
DGFT	Central govt.	Foreign trade	Online licences (G2B)
PRAJA	Andhra Pradesh	Rural services	Village-level G2C
e-Panchayat	Panchayati Raj	Local government	Transparent village administration

Example 5.2 — Long question

Describe the Bhoomi project of Karnataka and explain why it is considered a success.

Solution (outline)

Problem: handwritten records kept by village accountants → delays, errors, bribes. **Solution:** digitised RTC records, kiosks in taluk offices, computerised mutation, authentication and audit trails.

Success factors: clear legal backing, political support, simple kiosk process, small fees, training, high service volume. **Results:** RTC in minutes, less corruption, lower cost to farmers, database useful for loans and planning.

Key Takeaways — Unit 5

- ✓ Nepal: policy foundation (IT Policy 2000, ETA 2063, e-GMP 2006, ICT Policy 2015, Digital Nepal Framework 2019); local governments are the main service points; the Nagarik App offers integrated mobile services.
- ✓ NICNET gave India a national backbone linking centre, states and districts; many projects built on it.
- ✓ CARD, Bhoomi, E-Khazana, Sachivalaya Vahini, Collectorate 2000 and Smart Nagarpalika show how process re-engineering and computerisation improve services.
- ✓ DGFT shows G2B; e-Courts and NJDG show ICT in the judiciary; PRAJA and e-Panchayat bring services to villages.
- ✓ Common success factors: leadership, BPR, legal support, training, citizen focus and sustainability; common challenges: connectivity, skills and the digital divide.

— End of Unit 5 —

Reminder: these notes may contain errors — verify with your textbook and class notes.

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