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Smart National Identity Cards in Pakistan

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NATIONAL DATABASE AND REGISTRATION AUTHORITY

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Introduction

- **National Database and Registration Authority**
 - Largest Technology Organization in Pakistan
 - Ten thousand employees in four hundred offices
 - Expertise in Systems Integration
 - Government department responsible for identity management
 - Largest multi-biometric identity management system in the world
 - Recognized as one of the top Systems Integrators of e-Passport Technology in the World for four consecutive years

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Infrastructure

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Interactive Registration Centres

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Interactive Registration Centres

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Mobile Biometric Enrolment Vehicles



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Data and Networking Infrastructure

National Data Warehouse

- Massively Parallel Processing Architecture
- Currently stores over 100 Terabytes
- Two Sites, over 150 miles apart

Redundant and Scalable Network

- Close to one thousand servers connected
- Eight thousand computers connected

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Data and Networking Infrastructure



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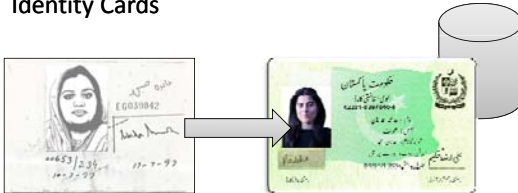
Evolution of NADRA

- In 1973, the Registration Department was established; National Identity Cards were introduced
- The Registration Department, unfortunately, exhibited inefficiency, corruption, and inability to upgrade to newer technologies
- In 1999, NADRA was established and the registration and management responsibilities of the entire Registration Department were handed over to NADRA's new team
- The Chairman of NADRA was given the role of Registrar General of Pakistan through an act of law

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Evolution of NADRA

- As a first step, NADRA set out to develop a national database with the issuance of new Identity Cards




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Products




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Products



National Passports



National Passports

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Products



Family Registration Certificates



Children Registration Certificates




Birth and Death Certificates

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







Identity Cards

- **100 Million Identities**
 - 70 Million Identity Cards for citizens over-18
 - 3.5 Million Identity Cards for Overseas Pakistanis
 - 91 Thousand Pakistani Origin Cards
 - 30 Million registered children
 - 6 Million Children Registration Certificates
- **Identity Numbers as the single unique identifier for a citizen**



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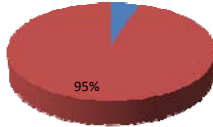
Identity Card Coverage

	NWFP	FATA	Punjab	Sindh
	9,063,831	1,103,182	38,926,602	5,204,884
				
	Baluchistan	Islamabad	Northern Areas	Azad Kashmir
	2,462,845	693,339	404,185	1,976,248
				

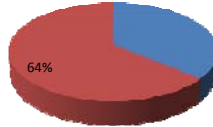
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Identity Card Coverage

Men	Women
43 Million	27 Million



95%



64%

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Enhancement in Women Registration

Women as a Percentage of All Registrants

Province	Before July 08	Since 1 July 08
FATA	~20%	~28%
ICT, AJK, FANA	~43%	~42%
Sindh	~38%	~46%
Balochistan	~35%	~47%
NWFP	~34%	~47%
Punjab	~40%	~47%

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Clients

Interior Ministry Pakistan World Bank Government of Punjab

UNHCR ADB Kenya Bangladesh

Election Commission, Pakistan Benazir Income Support Program National Highway Authority

Major Projects

Machine Readable Passports and Visas (Pakistan) Civil Registration System (Sudan) Passport Issuance and Control System (Kenya)

National Drivers License System (Bangladesh) Biometric Refugee Registration System for UNHCR Identity Cards and Access Control System for Pakistan Army

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Major Projects

Electronic Highway Toll Collection (NHA) Biometric Seafarers Identity Cards (Pakistan) Electoral Rolls (Pakistan)

Conditional Cash Grant Systems (ERRA) Kiosk and e-Sahulat Benazir Income Support Program

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A BRIEF HISTORY OF NATIONAL IDENTIFICATION AND NADRA

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Evolution of National Identification

1947 1973 1979 1999

1999: NADRA Established

NADRA represented a complete management shift from the old Registration Department. All management and registration functions were transferred to NADRA and its new team.

- No Notion of numbered Identity
- Manual Identity Cards
- Door to Door Registration
- National Data Warehouse and Network Infrastructure

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Evolution of National Identification

2000 2002 2003 2004

- Form-based Identity Card Application
- Online biometric enrolment centres
- Business Intelligence and Advanced Search Infrastructure
- Online verification service
- Enforcement of Identity Cards as the national identification document

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Evolution of National Identification

2004

- Face Recognition and Fingerprint Identification Systems

2005

- Self-service applications
 - NADRA Kiosk
 - Machine Readable Passports

2006 - 2008

- Export of technology and know-how
 - Various external projects

2009

- Smart Identity Cards

[forensic applications](#)

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FORENSIC APPLICATIONS OF NADRA'S DATABASE

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Forensic Applications

- Identification using Biometrics
 - Terrorists
 - Criminals
 - Victims of Bomb blasts
 - Countering Human Smuggling
 - Countering Immigration Fraud
- Phonetic Search
- Fighting Identity Fraud

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Forensic Applications Identification of Terrorists




- After a recent suicide attack, investigators found limbs of the suspect bomber
- These limbs were fingerprinted and sent to NADRA for Identification
- Through AFIS, the suicide attacker was identified



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Forensic Applications Identification of Victims


- NADRA helps civil society by identifying victims of terrorist attacks
- A public rally of more than 100,000 was attacked on 18 October 2007 at Karachi, resulting in hundreds of casualties
- Multiple victims were identified

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Forensic Applications Countering Human Smuggling

- A fishing trawler carrying 369 illegal immigrants was stranded near Mauritania. Authorities were unable to establish identity of migrants
- India, Pakistan, Sri Lanka and Myanmar were asked by Spain to identify their nationals
- NADRA identified 119 Pakistani citizens through the Biometric Database



(February 2007)
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