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## e-Governance Initiatives in Punjab: An Overview

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### Abstract

In India, governments at centre and state levels are investing huge amount in delivery of citizen services through information technology networks. State of Punjab is also implementing various e-governance projects. It is the aim of welfare state to provide good governance to its citizens. e-Governance is the realisation of good governance through the effective use of information and communication technology. Hence, this paper highlights the importance of IT in implementing the e-Governance in State of Punjab. It discusses various e-Governance initiatives undertaken by the state of Punjab and suggests various measures for their better implementation.

**Keywords:** e-Governance, National e-Governance Plans (NeGP), Information Technology, Transparency, Information and Communication Technology (ICT).

### Introduction

The word Governance in relation to country, means offering the people a system, competent to provide various facilities for a quality life. Governance also means control and authority. Where these two are to be exercised, they should be exercised keeping in mind the interest of people. M. Gopalswami, *Information Technology and E-Governance*, (2009), p. 24. Traditionally, the interaction between a citizen or a business and a Government agency took place in Government office. With the emerging information and communication technology it is now possible to locate service centre closer to the clients. The internet has proven to be powerful tool for reinventing governments. It encourage transformation from the traditional bureaucratic paradigm, which emphasized standardization, departmentalization and operation cost efficiency, to the e-government paradigm, which emphasized coordinated network building, external collaboration and customer services. Pankaj Sharma, *Electronic Governance*, (2004), p. 1.

e-Governance is the realization of good governance through the effective use of information and communication technology. The World Bank also defines e-Governance as the “use of information and communication technologies by government agencies to transform relation between citizen, business, and other arms of the government. It involves information technology enabled initiatives that are used for improving (i) The interaction between government and citizens or government and business i.e. e-Services. (ii) The internal governmental operations i.e. e-Administration. (iii) External interactions, i.e. e-Society.” More often the two terms e-Government and e-Governance are taken synonymous, but there is subtle difference between the two. e-Government is the structural aspect of government operations, whereas e-Governance is the outcomes of the government operations as experienced by those who are governed. Arunoday Bajpai, ‘Significance of e-Governance in Public Administration’, *Pratigyogita Darpan*, Vol 1, No. 9, (March, 2007), p. 1537. The internet has ushered enormous possibilities that have had a fundamental impact on human society. The advent of internet technology has made it possible for the government to become e-enabled and transform itself into a government online. It offers an outstanding opportunity to react to demands of the citizens and business by offering new methods of services delivery to meet their expectation M.P. Gupta, Prabhat Kumar, Jaijit Bhattacharya, *Government Online-Opportunities and Challenges*, (2006), p. 3. Information and Communication Technologies can enhance the transformation of work culture by serving a variety of ends, better delivery of government services to citizens, empowerment through

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access to information and participation for decision-making and more efficient government management. e-Governance is the application of ICT's to the processes of government functioning so as to have simple, accountable, speedy, responsive and transparent government Jyoti Rattan, *Cyber Laws & Information Technology*, (2011), p. 120.

Therefore, the establishment of e-Governance requires a good knowledge of the needs that exist in the society and that can be offered using ICT.

#### **e-Governance initiatives in the state of Punjab**

There is healthy competition among many states including Tamil Nadu, Kerala, Maharashtra, Gujarat, Madhya Pradesh, Rajasthan, Delhi, Punjab and Himachal Pradesh to initiate many e-Governance projects<sup>1</sup> Sadagopan Sowmyanarayanan., *IT Perspective and Trends*, (2006), p. 138. NASSCOM, analysis of e-Governance implementation undertaken in 10 key states revealed that southern states Andhra Pradesh, Tamil Nadu are leading in terms of implementing projects at different citizen-

government interface point. Others like Kerala, Maharashtra, Madhya Pradesh, West Bengal and Rajasthan are catching up fast. State like Karnataka has already implemented many e-Governance projects. However states like Punjab, Haryana, Delhi, and Orissa, e-Governance projects are implementing at comparatively slow rate Mootheril Raghavan Biju, *Good Governance and Administrative Practice*, (2007), p. 70. The National e-Governance Plan (NeGP) has been formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms & Public Grievances (DAR&PG). The Union Government approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects (MMPs) and 10 components on May 18, 2006 Out of these 27 Mission Mode Projects, 10 Mission Mode Projects are specifically categorised as state government projects<sup>1</sup> 11<sup>th</sup> Report of Second Administrative Commission of India on Promoting e-Governance Chapter 7, pp. 106, 108-110. These are shown in table 1 below:

**Table 1: Mission Mode Projects - State Government Category**

Sr. No.	Projects	Line Ministry/Department Responsible
1	Land Records	Ministry of Rural Development
2	Road Transport	Ministry of Road Transport & Highways
3	Property Registration	Department of Land Resources/Department of Information Technology
4	Agriculture	Department of Agriculture & Cooperation
5	Treasuries	Ministry of Finance
6	Municipalities	Ministry of Urban Employment and Poverty Alleviation
7	Gram Panchayats	Ministry of Panchayati Raj
8	Commercial Taxes	Ministry of Finance
9	Police (UTs Initials)	Ministry of Home Affairs
10	Employment Exchange	Ministry of Labour & Employment

In consonance with the national objective of making India a global IT Power and a front runner in the information revolution, the Government of Punjab set up the Department of Information Systems and Administrative Reforms (DISAR) by merging the Department of Administrative Reforms, Evaluation and the Computerization Wing of the Planning department with effect from 1.11.1998. The new Department of Information Technology (DoIT) has been entrusted with to formulate and implement a plan for introduction of Information Technology in the Punjab Administration at all levels, in coordination with the concerned Government Departments for better e-Governance [http://www.doitpunjab.gov.in/about\\_doit.htm](http://www.doitpunjab.gov.in/about_doit.htm). Accessed on 15-02-2013 at about 10.30 am. It is one of the objective of the IT policy in Punjab that to provide citizen-centred Governance which is efficient, low cost, effective, transparent, friendly, affordable, convenient and ensures full accountability of employees. The government would empower citizen through deployment of IT and e-Governance Gopal K. Bhargawa, S.C. Bhatt, Land and People of Indian States and Union Territories in 36 volumes, Punjab, volume 22. (2006), p. 130.

Further Punjab state has established Punjab State E-Governance Society (PSEGS) with the primary objective to administer the implementation of e-Governance projects for the overall benefit of the citizens and public by setting up the necessary administrative, financial, legal and technical framework, implementation mechanism and resources in the State of Punjab. It will facilitate establishment of

service centre through the district level Sukhmani Societies or through other methods as an innovative way of providing public facilitation and citizen services where citizens can get various desired information and services Preamble of Punjab State e-Governance Society (PSEGS), a society registered under The Societies Registration Act, 1860. The main e-governance initiatives of Punjab State are as follows:

#### **Punjab State Wide Area Network (PAWAN)**

This project is launched to establish the basic structure of e-Governance services and is responsible for providing communication link of data, Audio and Video Vikram Singh, Subash Chander, 'On the Role of e-Governance in Economic Development (An Impact Study of Rural and Semi-Urban Punjab)', *International Journal of Computing and Business Research*, vol. 3, No. 1, (January 2012), p. 3. This network would connect the state headquarters with three vertical layers for data, voice and video transmission-District, Sub-division and Block with 2 mbps minimum bandwidth. All Horizontal offices at each vertical layer would be connected to this network through nearest Point of Presence Workshop on 'e-Governance-Electronic service delivery' Directorate of Governance Reforms, Government of Punjab, 09 August, 2012. Available at <http://edistrict.punjabgovt.gov.in> Preeti Mahajan, 'E-Governance Initiatives in India with Special Reference to Punjab', *Asia-Pacific Journal of Social Sciences*, Vol. 1, No. 1, (Jan-June 2009), pp. 147,148. Workshop on 'e-Governance-Electronic service delivery' Directorate of

Governance Reforms, Government of Punjab, 09 August, 2012. Available at <http://edistrict.punjabgovt.gov.in>. PAWAN will be based on open standards, scalable with high capacity network to carry data, video and voice traffic between different offices of the Government of Punjab. PAWAN is also expected to help in the rollout of central applications covered under NeGP through interconnection with the national backbone as envisaged by Government of India as part of its PAWAN initiative <http://www.doitpunjab.gov.in/pdfs/projects/pawan.pdf>.

Accessed on 18-02-2013, at about 11am. It provides the reliable and secure connectivity within the state administration to make the Government more productive at reduced communication cost Sushil kumar Singla, Himanshu Aggarwal, 'Impact and Scope of e-Governance Initiatives in State of Punjab (India)', International Journal of Computer Application, Vol. 44, No. 14, (April 2012), p. 5.

It also Provide secure backbone for encouraging electronic transaction and ensure that every citizen in the state has access to government services and information whenever and wherever they need it. Make services available in a cost efficient manner, offering public constituencies' equivalent access at an equivalent price, regardless of their location in the state of Punjab<sup>1</sup> Jaspreet Kaur, Vijay Singh Rathor, 'Impact of ICT and e-Governance Security in Punjab', Global Journal of Computer Science and Technology, Vol. 12, No. 2, (January 2012), pp. 5, 6.

#### **Property Registration Information System Module (PRISM)**

This initiative is providing services related to Land (Purchase, Sale, Mortgage etc.) with computerized automatic manner. PLRS (Punjab Land Records Society) is responsible for this service Vikram Singh, Subash Chander, 'On the Role of e-Governance in Economic Development (An Impact Study of Rural and Semi-Urban Punjab)', International Journal of Computing and Business Research, vol. 3, No. 1, (January 2012), p. 3. Punjab Land Records Society is a society established (under Registration of Societies Act, 1860) by the Government of Punjab to formulate strategies, policies, plans and to assist the State Government and Government of India in the effort to provide efficient and prompt services in the public matters relating to land and revenue, through the use of Information Technology and its related fields. The primary objective of the Punjab Land Records Society (PLRS) is to oversee, monitor the implementation of computerization and digitization of land records and related documents in Punjab for the overall benefit of the citizens and to provide land records related services through multiple common access infrastructures like Sukhmani Centres to the public <http://plrs.org.in>. Accessed on 22-02-2013 at about 2pm.

This project automats all major activities of Sub-Registrar office through single window system. It includes deeds of sale, mortgage, valuation of property, on the spot registration, will, lease etc and capturing and printing of photographs on stamp paper<sup>1</sup> Sushil kumar Singla, Himanshu Aggarwal, 'Impact and Scope of e-Governance Initiatives in State of Punjab (India)', International Journal of Computer Application, Vol. 44, No. 14, (April 2012), p. 5. Land record data is presently being digitised in all districts. 153 Common service centres at tehsils/sub tehsils level are being opened for delivery of services relating to land records and registration of properties in an integrated

manner across the State. All data would reside at central service so that such services could be delivered on internet for the land holders across the globe by ensuring anytime, anywhere services Preeti Mahajan, 'E-Governance Initiatives in India with Special Reference to Punjab', Asia-Pacific Journal of Social Sciences', Vol. 1, No. 1, (Jan-June 2009), p. 150.

#### **Integrated Treasuries Information System of Punjab (ITISP)**

In order to bring more transparency in the treasuries and account department, this project aims at implementing the payment module, receipt module, pension module, bank module etc. online. The district treasuries are proposed to be equipped with interactive voice response system (IVRS) through which DDO's would be able to know the status of the bills<sup>1</sup> Preeti Mahajan, 'E-Governance Initiatives in India with Special Reference to Punjab', Asia-Pacific Journal of Social Sciences', Vol. 1, No. 1, (Jan-June 2009), p. 152. District Treasury offices are linked with the Treasury Website to check online account head wise reports for various purposes Shruti Singh., "Shahid Bhagat Singh Nagar,Punjab", Winner of CSI e-Gov Award, 2009-2010.This would enable to monitor the working of Treasuries and exchange data online from the State Headquarters and vice versa. It will also facilitate effective control over the expenditure by allocating DDO-wise allocation of budget to the Treasuries, whereby, it will not be possible for DTO to pass bills beyond the authorized appropriation<sup>1</sup> Jaspreet Kaur, Vijay Singh Rathor, 'Impact of ICT and e-Governance Security in Punjab', Global Journal of Computer Science and Technology, Vol. 12, No. 2, (January 2012), p. 5. This has not only bring efficiency in system but has also the operation and management of state fund better way.

#### **Transport System VAHAN, SARTHI**

Computerisation of Regional Transport Offices (RTO) and District Transport Offices (DTO) had been initiated by a number of state governments, notably Delhi, Maharashtra, Bihar, Goa, West Bengal and Punjab. However, the approach was different for each state keeping in view only the local requirements. The shape of documents was also non-uniform. Some states introduced plastic cards, some smart cards and others continued with paper based documents Vikram Singh, Impact of Information and Technology on Public Life, (2009), p 72. Punjab Transport Department is pioneer in using Information Technology for providing citizen centric services. Computerization of department started 10 years ago with the implementation of VAHAN and SARATHI along with computerization of all the managerial functions of the Transport Department. Sarathi application is used for Issuance of Driving Licences and Vahan application is used for Issuance of Registration of Vehicles. Gradually all the processes of the Transport Department are being computerized and the data is made available through Internet or SMS for access by citizens. Punjab is the First state to successfully implement Vahan & Sarathi across the state. There are 22 DTO's and 52 SDM's distributed geographically in the state of Punjab keeping the public convenience in mind and vehicle population within the region<sup>1</sup> <http://olps.punjabtransport.org/index.aspx>. Accessed on 04-03-2013 at about 8pm. With the implementation of this

project the District Transport Office is able to deliver Driving licenses and Vehicle Registration Certificates in 45 minutes which earlier use to take 10-15 days.

#### **Agriculture Produce Marketing Information Network (AGMARKNET)**

The Directorate of Marketing and Inspection (DMI) has sponsored AGMARKNET project which is being executed by the National Informatics Centre (NIC) on turnkey basis. Under the project, various agriculture produce wholesale markets are progressively being linked to share daily market information for the benefit of farming community and several other stakeholders State Level Workshops on AGMARKNET' Organized by National Informatics Centre in collaboration with Directorate of Marketing & Inspection, 2009-10, 2010-11, p.10. Available at: <http://agmarknet.nic.in/workshopsproceedings.pdf>. Punjab State Centre of National Informatics Centre (NIC-Punjab) has Implemented AGMARKNET project which facilitates market fees collection, database of dealers, Issuance of Licenses for dealers etc. The State Agricultural Marketing Boards/Departments/Markets are collecting the desired market information and passing on the same to their respective authorities and Head office of DMI for onward dissemination. For easy interface with farmers and other beneficiaries a portal for Agmarknet has been developed to serve as a single window for accessing websites of various organizations concerned with agricultural marketing <http://pbsc.nic.in>. Accessed on 05-03-2013 at about 10 a.m.

#### **Single User Friendly Window Disposal Helpline for Applicants (SUWIDHA)**

It was realised by Punjab state government that in line with the priorities of the state, all the revenue generating departments have to implement sound e-Governance especially by launching unique projects like SUWIDHA for its people. S.U.W.I.D.H.A or Single Use Friendly Window Disposal and Helpline for Applications commenced its services on June 23<sup>rd</sup>, 2003 with only four counters for providing few services in Kapurthala. Its tag line "Convenience and commitment is Suwidha" rightly reflect the mood of government, 'talk straight and deliver on time.' It also came equipped with latest gizmo like top end computers, scanning machines, web cams, and user friendly software designed for fast out puts. Suwidha centre is a new way to get improved timely and affordable services from the district collector's office and has a single window counter approach. These computerised service centres provide an integration of 20 different services like, issuing of Arm licence, NOCs for Petrol Pumps/Hotels, Affidavit Attestation, Issuing of Birth/Death Certificate, Caste Certificate, Residence, Backward Area and Rural Certificate etc Ramesh Kumar, Standardization key to Social Reforms, (2007), p. 77. Suwidha centre are run and managed by Sukhmani Society of district under chairmanship of Deputy Commissioner under the frame work and supervision of Punjab state e-governance society Sushil Kumar Singla, Himanshu Aggarwal, ' Citizen's Satisfaction with SUWIDHA initiatives in the State Punjab (India)', International Journal of Computer Applications, Vol. 31, No.8, (October 2011), p. 21.

#### **Common Service Centre:**

The State Government intends to synergize its e-Government endeavours by dovetailing the same within the

overall framework of the Central Government's proposed CSC Scheme to reach out to the citizens staying in rural India. The main features of the CSC Scheme are to roll out over 1,00,000 CSCs across the country, primarily in rural areas, with an equitable geographical spread that would cover at least 40% of the Gram Panchayat locations in every district of a State. It allows for rural entrepreneurship for the base at the front end & market mechanisms to determine the contents, along with Government services, to be piped through this delivery platform. Participation of the right stakeholders will enable a delivery platform of world class information, goods & services at the door steps of the citizen. The State Government will also facilitate connectivity of CSCs to State Wide Area Network (SWAN) and upgrade the centres to broadband enabled CSCs, to support high end services like education, telemedicine etc. <sup>1</sup> Implementing the CSC Schemes in Punjab, Approach Paper, Department of Information Technology Government of Punjab, p. 1, 9.

#### **e-District**

This Project has been initiated by the government of Punjab to provide Integrated and seamless delivery of high volume, citizen-centric services at the District level such as issue of birth/death certificate, income and caste certificate, old age and widow pension etc. It target high volume delivered at the District level and to undertake back-end computerization to enable the delivery of citizen services and to integrate multiple applications, faster processing of public cases/appeals/grievances, dissemination of information as per public requirement and redesign the processes for the core services to be delivered. Currently one Service (Residential Certificate) made Live in two Pilot Districts (Nawanshahr and Kapurthala) on 6.2.2012. More than 4000 Certificates have been delivered to citizens through e-District. 5 services (Pensions & Caste Certificates) to go live shortly .Software is ready for remaining 38 services. Government Orders awaited for these remaining services Workshop on 'e-Governance – Electronic Service Delivery', Directorate of Governance Reforms, Government of Punjab, 09 August, 2012. Available at: <http://edistrict.punjabgovt.gov.in/eda>.

#### **Saanjh Kendras**

Punjab Government has launched the community policing initiative with the inauguration of the state-of-the-art Saanjh Kendras at the Majitha and Civil Lines areas. Total 115 Saanjh Kendras all over the state has been set up in 2011. The Saanjh Kendras will provide all the services, as enshrined in the Right to Service Act, from a single window. These include verification of tenants, registration and verification of servants, passport verification, police clearance certificate, verification of vehicles, character verification for service, payment of traffic challans, information of impounded vehicles, receiving complaints on traffic problems, permission for political/sports/religious functions, NOC for armed licences, permission for use of public address systems etc. The kendra's will also provide a copy of an FIR online. The concept of Saanjh Kendra's has its genesis in the fact that the common man is hesitant to step into a police station. These kendras will provide a "dignified access point" to the citizens so that they can lodge a complaint or find out the status of their complaint without any apprehension The Tribune Chandigarh, (Tuesday, October 18, 2011). Presently more than 500

Saanjh Kendra's has been established for delivery of more than 20 services Police Department Hindustan Times Live Chandigarh, (Sunday, April 21, 2013).

### Sewa Kendra

Under this project the state government provides citizen centric services like death and birth certificates as defined under Punjab Right to Services Act, 2011. There have been 2100 Sewa Kendra's activated till date. It is expected to provide 200 citizen services with setting up of Sewa Kendra's across the state. Currently 67 services are being delivered at Sewa Kendra's.  
<http://indiatoday.intoday.in/story/2100-sewa-kendras-activated-in-punjab/1/825395.html>

### e-Sewa

This mobile application provides information regarding various services which are delivered electronically to the citizen. Citizen can check for the list of supporting documents / enclosures, Government fee, facilitation charges and can also download the application form for multiple services. Using this application, citizen can track the status of their service requests applied through Sewa Kendras / Online through State Portal. They can also locate the nearest Sewa Kendra in their District and Sub-division. Government officials can log into their electronic service delivery account and check the real time service level pendency at their end. They can also verify various types of documents / certificates issued electronically through electronic service delivery.  
<https://apps.mgov.gov.in/descp.do?appid=1111>

### Conclusion and Suggestion:

Punjab government have already initiated various e-Governance projects to accelerate the usage of Information Technology in the delivery of services to the citizens. Department of Information Technology has been set up by the state government to execute information technology for the effective implementation of e-Governance. Punjab State E-Governance Society (PSEGS) is another attempt by the state government to administer the implementation of e-Governance projects with the aim to take all necessary steps to promote efficiency, reduce delays, enhance accountability, transparency and objectivity in the functioning of government. But all these initiatives have not been able to achieve success as expected by the state government because of various issues. Therefore while implementing e-Governance projects it is necessary to keep in mind some additional action plan. e-Governance project should be guided by the following:-

- Majority of people in Punjab are living in villages they are economically poor, socially backward and illiterate. Even the section of public that is educated, lacks minimum basic knowledge of computer and internet operating skills. For successful e-Governance projects, the state government should focus to implement projects which are simple, economical and more citizens centric.
- The dominance of English language on the internet constrains the access of non-English-speaking population. It is found that most of the population in Punjab speak Punjabi. So government should implement e-Governance software's which are in local language.

- There are also issues of accessibility, usability, security and transparency. Secure and easy access will create trust in the people and they are comfortable to provide personal information on line. Lack of trust by the public can also lead to the failure of a serious delay in e-Governance initiatives. Government should advertise e-Governance services in rural areas to generate the trust in people.
- The efficacy of e-Governance mainly depends on the use of information and communication technology. So for better services the tools of information technology should be regularly updated to avoid problems like slow internet speed, connection failure, computer hanging, display problem, virus attack etc.
- There is also a need for change in mind set on the part of employees. The majority of the employees are still more comfortable with the previous mode of working. So the government should ensure the frequent training and development of government employees in terms of operational skills as well as people-centric approach.
- Government should regularly give technical training to its employees regarding use of information technology.
- Last but not least exiting policies need to be modified, new policies to be initiated to ensure the environment in which e-Governance can work effectively.

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