

Case Study

TrackChild -Online Tracking System for Missing Children, Kolkata, West Bengal

URL - <http://www.trackthemissingchild.gov.in/trackchild/index.php>



Department of Women and Child Development, West Bengal

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Abbreviations

DWCD	Department of Women and Child Development
NIC-WB	National Informatics Centre-West Bengal
DM	District Magistrate
SP	Superintendent of Police
SMS	Short Message Service
ICPS	Integrated Child Protection Scheme
CCI	Child Care Institution
CWC	Child Welfare Committee
JJB	Juvenile Justice Board
MWCD/MoWCD	Ministry of Women and Child Development
ICT	Information and Communication Technology
CPSU	Central Project Support Unit
SCPU	State Child Protection Unit
DCPU	District Child Protection Unit
IAS	Indian Administrative Service
NGOs	Non-Governmental Organizations
JJ	Juvenile Justice
MoHA/MHA	Ministry of Home Affairs
PHP	Hypertext Preprocessor
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheets
SQL	Structured Query Language
GoI	Government of India
NDC	National Data Centre

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PS	Police Station
CBI	Central Bureau of Investigation
CID	Crime Investigation Department
SAIEVAC	South Asia Initiative to End Violence Against Children
SAARC	South Asian Association for Regional Cooperation

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1. EXECUTIVE SUMMARY

The pilot programme of National Tracking System for Missing Children was launched in West Bengal way back in 2007-08. After successful implementation over next few years, the system was rolled out nationally in 2012-13. The DWCD (Department of Women and Child Development), West Bengal with active technical support from NIC-WBSC pioneered this initiative. The system also paves the way to effectively implement Anti Human Trafficking initiatives of Department of WCD and Police by tracking and monitoring women and child trafficking syndicates.

Key objectives of the project are to create a systematic and centralized mechanism for tracking large number of women and children who are missing for various reasons and set up a framework for participating organizations involved in the process. The project then ensures ultimate repatriation and rehabilitation of the missing women and children. The DMs and SPs receive monthly SMS alerts regarding missing/found children. The initiative also focuses to set up a Web-enabled Child Protection Management Information System (MIS) for various ICPS (Integrated Child Protection Scheme) bodies.

Initiative provides online resource directory of child protection service providers like Police, Child Care Institutions, Child Welfare Committees, Juvenile Justice Boards, ICPS Bodies etc. and online data repository of all CCI (Child Care Institutions) children. The project covers almost the entire country which includes around 650 districts. The major beneficiaries of the project are missing children, vulnerable children residing at shelter homes, platforms, bus stands, roads, religious places etc. and agencies involved in child protection. As on August 2015, the portal has registered 2,06,830 missing children cases and 1,06,476 found children cases.

2. INTRODUCTION

The centrally sponsored ICPS Scheme aims at contributing to the improvement of the children who are in difficult circumstances. The MWCD entrusted NIC to develop a comprehensive ICT based system to track the 'missing' as well as 'vulnerable children'. After a successful pilot implementation in West Bengal, the system was rolled out nationally during 2011-12. The portal 'TrackChild' holds the live data base of 'missing' and 'found' children and tracks the overall progress of the children living in the Child Care Institutions (CCIs).

'TrackChild' portal has been designed and developed adhering to the guidelines provided in the Juvenile Justice (Care and Protection of Children) Act, 2000 and Model Rules 2007 and the provisions laid down in the Integrated Child Protection Scheme (ICPS). One of the tasks entrusted under ICPS to the State Governments is the setting up of a child tracking system which will facilitate data entry and matching of missing and found children and also enable follow up of the progress of children who are beneficiaries of the scheme. Thus, proper monitoring and welfare of the children under the scheme would also be ensured through this portal.

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'TrackChild' portal provides an integrated virtual space for all stakeholders and ICPS bodies which include Central Project Support Unit (CPSU), State Child Protection Society/Units and District Child Protection Units (DCPU), Child Care Institutions (CCIs), Police Stations, Child Welfare Committees (CWCs), Juvenile Justice Boards (JJBs), etc. in the 36 State/UTs. It also provides a networking system amongst all the stakeholders and citizens to facilitate tracking of a "child in distress". It requires data entry by different stakeholders.

The major objectives to be fulfilled by the TrackChild project were:

- To ensure timely tracking of missing children.
- To ensure ultimate repatriation and rehabilitation of missing children.
- To ensure monitoring of children in Child Care Institutions (CCI`s).
- To set up a framework for participating organizations involved in the process.

TrackChild Mobile

The citizen interface of 'TrackChild' system may be accessed through mobile devices. A citizen can access the portal through mobile devices to use 'specialized' light weight interfaces to 'report a missing'/ 'report a found' child or to search a missing/found child. A mobile app has also been developed and made available in 'Google Play Store' and 'NIC App Store' for downloading. The SMS Alert system sends alert messages to pre-defined stakeholders for initiating prompt action at their end for addressing the issue.

3. OVERVIEW OF THE PROJECT OWNER

- The Department of Child Development, Women Development and Social Welfare, Govt. of West Bengal, presently headed by Smt. Roshni Sen, IAS, is the owner of the system. After successful implementation of the system in the state, the Ministry of Women and Child Development, Govt. of India rolled it out nationally.
- Smt. Roshni Sen, IAS, is Secretary of Department of Child Development, Women Development and Social Welfare. Smt. Roshni Sen is having more than 23 years of experience in Indian Administrative Service. She spearheaded quite a few remarkable e-governance projects which are nationally and internationally acclaimed. She has been conferred 3 awards in "National e-governance Award".
- Smt. Sen played a key role in conceptualizing the "TrackChild" system and led from the front to implement it successfully in West Bengal as a pilot model for "National Tracking System for Missing Children" which eventually rolled out in all States and UTs of the country.
- She had a leading role in bringing together various stakeholders like State Police, Legal Service Authorities, NGOs etc. on the same platform to effectively find missing children of the country and to reunite them with their families. She has also taken up the issue with JJ Review Committees of Hon'ble Supreme Court and Hon'ble Calcutta High Court for effective implementation of the system.

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4. PROJECT OVERVIEW / HISTORY OF THE PROJECT

Government of West Bengal used ICT based solution to solve the problem of “Missing Children” way back in 2003-04 through NIC-WB. This solution was implemented in all Police Stations of West Bengal and provided a mechanism to enter “Missing Persons Data” in offline software and upload output file in “Online Portal” to synchronize the data. In 2007-08, the initiative was further strengthened as Government of India had requested Government of West Bengal to initiate a pilot programme for development of prototype “National Portal for Missing Children”. The prototype was developed, launched in 2008 and rolled out in all 514 Police Stations and 54 Child Care Homes of West Bengal. The Ministry of Home Affairs issued an advisory in 2012 asking all States / UTs to adopt this solution as it showed considerable improvement in tracing “Missing Children” of West Bengal.

The pilot implementation was very successful as the recovery of “Missing Children” has improved from 5% to 50% (as of now) and matching rate of “Missing Children” has become around 40%.

In 2012, the Government of India assessed all available solutions for tracing “Missing Children” which are used by various States / UTs. The MoWCD, MoHA and CBI came to the conclusion that the West Bengal model is best suited for national roll out. The Hon’ble Supreme Court also asked the Union Government to come up with a national system for Tracking “Missing Children” without any further delay.

Seeing the success of the WB initiative, the MoWCD rolled out the portal nationally through National Informatics Centre. The creative hub as well as the operational support centre remains at West Bengal.

The system was further upgraded in 2012-13 to augment “Child Progress Tracking System” for the children who are living at Child Care Homes. The progress tracking is being monitored through the provisions of “JJ Act 2000” and its various amendments and Integrated Child Protection Schemes.

The West Bengal model is scalable and very easily replicable by the stakeholders who are operating at various States and UTs.

Innovation in the project

- The innovative and comprehensive workflow ensures seamless information exchange amongst stakeholders.
- Automated, dynamic matching mechanism between missing and found child.
- Multilingual services for user
- Advanced searching facility
- Responsive design
- Face matching system is being introduced.

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5. SITUATION IN PROJECT OWNER'S STATE/ DISTRICT

➤ **Earlier Situation:**

Earlier, there was no data / information readily available on “Missing Children”. The complaints of “Missing Children” lodged at Police Stations were hardly compiled and shared with other Police Stations, let alone with other child protection service providers.

India being a country of diversity in terms of vast geographical terrains, culture, languages and the problem of “Missing Children” has taken a different dimension. The “human trafficking” aspects have also made the issue more complex. The horrific “Nithari” incident shows that there was no concerted effort from law enforcement agencies, organizations dealing with child protection to track the “Missing Children”.

It was evident that co-ordination amongst law enforcement agencies, organizations dealing with Child Protection, related Government bodies and citizens at large to track a “Missing Child” was not present.

➤ **The Problem**

Before the initiative, there was no online service for tracking of children. It was also observed that due to unavailability of data of missing children in the right time, they were trafficked or not reintegrated with their family in a reasonable time. Also the process of reintegration becomes lengthy. The citizens were also unable to contact with various child protection authorities for missing and sighted cases. The monitoring of child was also a complex process for child protection authorities.

Since there was no online system available before, actual spot verification was needed entailing huge expenditure of time and money and manpower.

In numerical terms only 8000 transactions (no online transaction) were maintained annually as compared to 80,000 transactions recorded annually after the initiative.

The number of complaints received from parents who lost their child was increasing and there was no proper system for recording of such complaints.

➤ **Stakeholders / beneficiaries involved**

Before initiation of the software development, all stakeholders were consulted extensively at District, State and National level. More than 30 workshops/meetings were held to finalize the functionalities, software requirement specifications and access control mechanism.

Major stakeholders including Police, CCIs, CID, CWC, JJB were consulted. The stakeholders were extensively consulted before initiation of software development. During implementation stage, feedback from stakeholders was received and accordingly the system had been updated.

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The “TrackChild” system is being directly monitored by Hon’ble Supreme Court. The directions of Hon’ble apex court have been implemented from time to time.

Regular feedbacks are also received from various stakeholders which is being used as the base for further upgradation of the software.

➤ **Key beneficiaries of the Project**

- Any missing child
- Every vulnerable child residing at shelter homes, platforms, bus stands, roads, religious places etc.
- Agencies involved in child protection like, Police, CCIs, CWCs, JJBs etc. Child tracking system has been developed to facilitate data entry, matching of missing and found children and also enable follow up of the progress of children who are beneficiaries of the Scheme.

Thus, proper monitoring and welfare of the children under the ICPS Scheme would also be ensured through the portal.

➤ **Steps/ action taken at the state/ district level to address the problem**

The problem of “Missing Children” was studied in detail by various organizations. It has been reported that one child gets missed in every eight minutes. It has also been studied that most of the “Missing Children” never return.

The major problem of finding “Missing Children” is lack of co-ordination amongst agencies. India having a vast and diversified geographical terrain, multiple cultures and languages, it becomes very difficult to trace a “missing child” if he/she is very young and unable to properly tell details of parents / native place.

The “Trackchild” system has a very scalable model which could be replicated very easily. The core software has been developed and deployed in National Data Centres. Then trainer’s training was carried out in each States/UT for Police and WCD officials (CCIs, CWCs, JJBs, ICPS bodies etc.)

The “Trackchild” system is supported by administrative orders from Police and Dept. of WCD. Various communication materials have been developed and circulated at the grassroots.

6. MODALITIES OF THE NEW SYSTEM (SOLUTION)

➤ **Technology Platform used**

Following technologies have been used to develop this system-

- Database –PostgresSQL
- Web server – Apache
- Operating System – Redhat Linux
- Server site scripting – PHP
- Client site scripting – Java Script, JQuery
- Front end design – HTML-5 and CSS3
- NIC-SMS & mail server support is also enabled

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➤ **Interoperability**

The system has been developed in open source and maintains e-Governance standards so that interoperability does not become an issue.

➤ **Security concerns**

The Portal complies with latest e-Governance standards as recommended by the GoI. The Application software has passed security audit multiple times. Since it is deployed in the national data centre, all data security related aspects of data centre are in-built.

➤ **Any issue with the technology used**

There are no issues with the technology used.

➤ **Service level Agreements (SLAs)**

The system has been deployed in National Data Centre so all service related agreements available at NDC can be applied for this system also.

➤ **Measures to ensure adaptability and scalability**

▪ **Intra-country:**

- a) **Maintenance of proper ‘e-governance’ standards:** The portal is developed maintaining e-Governance standards ensuring seamless sharing of information and interoperability across e-Governance applications.
- b) **In-built Master Directory of Stakeholders:** The master directory of stakeholders is in-built in the system. So, any stakeholder can just start working in the portal with minimum training.
- c) **Accessing e-services using any computing device:** The users of the portal just require any computing device having internet connectivity for accessing the services of the portal which facilitates replication. The existing infrastructures of Police and ICPS (for CCIs, CWCs & JJBs) are being used to operate the portal. So, there is no need to create any special infrastructure to use the portal.
- d) **Administrative Guidelines:** The Ministry of Home Affairs has issued advisories to each state to ensure proper data entry of “Missing / Found” children in “TrackChild” system by every PS of the country. Similarly, the MWCD has issued guidelines to states / UTs to ensure proper data entry into the system by CCIs, CWCs & JJBs.

Already this system has been adopted in other States/UTs in full swing.

▪ **Inter-country:**

India is surrounded by its neighbor countries like Bangladesh, Nepal, Bhutan, Myanmar, Sri Lanka. These countries are known as source centre of human trafficking. Maximum children are trafficked from these countries and brought to India. It has been proposed in the meeting of SAIEVAC, a

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secretariat under SAARC to replicate “TrackChild” in Bangladesh and Nepal to ensure seamless information exchange amongst the 3 neighboring countries which are victims of ‘human trafficking’.

➤ **Measures to ensure replicability**

The portal is developed maintaining e-Governance standards ensuring seamless sharing of information and interoperability across e-Governance applications.

The master directory of stakeholders is in-built in the system. So, any stakeholder can just start working in the portal with minimum training.

The users of the portal just require any computing device having internet connectivity for accessing the services of the portal which facilitates replication. The existing infrastructures of Police and ICPS (for CCIs, CWCs and JJBs) are being used to operate the portal. So, there is no need to create any special infrastructure to use the portal.

The Ministry of Home Affairs has issued advisories to each state to ensure proper data entry of “Missing / Found” children in “TrackChild” system by every PS of the country. Similarly, the MWCD has issued guidelines to states / UTs to ensure proper data entry into the system by CCIs, CWCs & JJBs.

West Bengal shares more than 4,000 kms. of international borders with Bangladesh and Nepal which are also widely known as ‘source’ countries of “Human Trafficking”. It has been proposed in the meeting of SAIEVAC, a secretariat under SAARC to replicate “TrackChild” in Bangladesh and Nepal to ensure seamless information exchange amongst the 3 neighboring countries which are victims of ‘human trafficking’.

➤ **Restrictions, if any, in replication and or scalability-** No restrictions

➤ **Risk Analysis-** Not Available

➤ **Capacity Building model used**

Trainer’s training programme was arranged at every state/UT at first. Then need based capacity building programme had been undertaken. The Police Training Colleges have been advised to include “TrackChild” in their curriculum.

7. IMPACT ON THE STAKEHOLDERS/BENEFICIARIES

➤ **Cost benefit analysis**

- Before implementing this system, police used to broadcast missing information by phone call, fax, printing media and electronic media. It was very much a time consuming effort to track a missing child. This system provides real time online data entry from grass-root level i.e. Police Station and it broadcasts the missing information to all Police Stations of the country along with the higher authorities. TrackChild maintains e-profile of

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children/person receiving services from ICPS Scheme. The portal provides transparency to all stakeholders. Data entered at the lowest level is available to all higher level competent authority 24 x 7 x 365 days, thus avoiding the age old tradition of paper-based data transfer. Feedbacks and grievances are also processed online.

- This system has been developed with open source technology. So there is no additional cost to maintain this system.

➤ **Value delivered**

(i) To organization

The organization has received various e-governance awards and also being considered for a possible roll out in SAARC countries.

(ii) To citizen

As on 30th June 2016, the portal has registered 2,52,266 missing children cases, 1,46,447 found children cases and 3,81,743 CCI children cases. 1,23,153 successful cases of matching of missing and found children have also been registered.

8. FUTURE ROADMAP / SUSTAINABILITY

➤ **Future Roadmap**

- Extension of the system to SAARC Countries
- Linkage with Police and Civil Society of the SAARC Countries
- Social Media integration
- Introducing advanced new features for effective monitoring
- Introducing advanced matching mechanism
- Introducing more effective real time e-alert system

➤ **Sustainability**

- Developed in open source technology by NIC, GoI
- The portal is hosted in National Data Centre of India
- Hon'ble Supreme Court is monitoring the progress of tracking "Missing Children" through this system
- MWCD & MHA has advised all states/UTs to use this system

9. ANNEXURE(S):

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