KOSI OPERATIONAL PLAN
BIHAR, INDIA

Intensified Polio Eradication Initiatives in the
Access Compromised Areas of Kosi/Kamla/ Kareh river of
Bihar

Updated on June 2009
(Based on Kosi Operation Plan 2008, Recommendations of first & second Kosi operation
group meeting ’08 & ’09 and Strategic Plan 2008)
KOSI Operational Plan: Revised for 2009-2012
Bihar State, India

INTRODUCTION

Bihar is one of the last remaining reservoirs for type 1 polio circulation in the country. Analysis by NPSP of polio cases reported from 2003 to 2007 indicates that 41 blocks of the state are responsible for most of the P1 cases over the years. The key to ensuring success in Bihar is to rapidly identify and address the remaining challenges in these blocks. 18 of these 41 identified High Risk blocks are clustered around KOSI, KAMALA & KAREH river basin. Type 1 polio cases reported in 2007 had shown a clustering in the 12 KOSI riverine blocks (Persistent Transmission blocks) and neighbouring blocks along the edge of the Kosi / Kamala riverine area.

With the intensification of activity in KOSI riverine in 2007, the transmission became significantly low but, a very low level of transmission persisted in this area throughout 2008. In 2009 the cases with same genetic linkage spread in and around KOSI riverine area.

The area in KOSI/KAMAL/KAREH river basin is practically submerged under flood waters every year for 3-5 months. When the flood waters recede, access remains difficult as neither bridges nor roads exist. Movement in the 3000 km² area is restricted to boat, motorcycle, or walking. Tally sheet data from polio rounds suggests that over 500,000 children < 5 years of age are residing in villages throughout the area, roughly corresponding to the population of an average sized Bihar district, though one with no roads. This represents tremendous challenges for achieving and sustaining high coverage and improving the quality of immunization activities. The difficulties accessing these areas mean that they are often relatively neglected.

In order to effectively address the challenge of access and stop the transmission in this area, Polio Eradication Partners need to sustain and increase field presence and improvement in operations, monitoring, mobilization and surveillance.

This document provides the operational plan for achieving those goals.
KOSI Area:

For polio eradication purpose, the blocks around rivers KOSI, KAMALA and KAREH have been taken as the ‘KOSI area Blocks’ as this forms a continuous geographical zone and shares similar geo-demographical features.

This area extends from Supaul and Madhubani in north to Katihar and Purnia in southeast and involves 43 blocks of 12 districts (Table 1).

Table 1: Blocks of Kosi/Kamala with significant Access Compromised Areas (ACA)

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KOSI OPERATIONAL GROUP and Other BODIES:

To oversee the progress in KOSI riverine area and to modify approaches on need basis, a KOSI Operational Group has been formed with members from key program partners. The group is chaired by Principal Secretary (HFW) and is given Social Mobilization inputs by Program Manager-Polio (UNICEF) and technical and operational inputs by Regional Team Leader & OSA (KOSI) from WHO-NPSP. The group also consists of key field personals from Health Department, SM-Net and WHO-NPSP.

This KOG met for the first time in February 2008 to identify Operational Grids within the KOSI area as units for intensification of Operations, Mobilization and Monitoring. This group has met twice after that to assess the progress and strengthen the Operations. This group will meet every quarterly to review the progress and suggest the interventions as per program need.

WHO-NPSP will sustain and strengthen the KOSI Task Force formed within the organisation at both state and national level to prioritize resources to this area and to provide close oversight and technical guidance from the highest level.

UNICEF Bihar will form a KOSI Management Team to oversee and facilitate Social Mobilization and convergence in this area.

PRECEDING KOSI OPERATIONAL PLAN AND PROGRESS:

The first KOSI Operational plan was drafted in 2008 by KOSI Operational Group and laid emphasis on detailed mapping of area, increased field presence of all partners through the Grid Approach and establishing Satellite Offices, Intensification of Operations and Increased oversight by the state Government.

Operations in ACAs of KOSI area has been intensified though the 31 Grids identified in KOSI blocks and increased presence of partners. The Medical Officers presence in ACAs and the oversight by the state government has increased through a regular visit by State Monitors.

WHO-NPSP has prepared detailed topographical maps of all KOSI riverine blocks, established 58 stay facilities (21 Satellite office & 37 Stay points) and has deputed SMOs and FVs for every grid to intensify monitoring in highest risk areas through borderless approach.

UNICEF has deployed CMCs for every team in the grid area and BMCs have been deployed in every KOSI block.

KEY DEFINITIONS:

1. ACAs and Non ACAs: The blocks identified as KOSI blocks have stretches of riverine area with difficult access. These part of KOSI blocks are called Access Compromised Areas (ACAs) all other part of block is called non ACA. These areas have been defined for each block.

2. Inside Embankment Area: KOSI riverine area has the embankment in most of the stretch. The areas falling within embankments are called Inside Embankment area. There are some ACAs where there is no embankment like Kusheshwar Asthan East.
For uniformity, ACAs and Inside Embankment are taken as synonymous for KOSI area (even if there is no embankment in ACA).

3. Grid: Grids are operational units of intensification in ACAs of KOSI. Grid is a cluster of villages within Access Compromised area that are easily accessible from a grid station/ nodal point without regard to administrative boundaries.

INTENSIFICATION PLAN:

1. Field presence

The field presence in ACA of KOSI is critical in determining the quality of SIA in the area. The intense involvement of SMOs, SM-Net and Government MOs in preparatory phase and activity will ensure high quality of SIA in this area. To ensure and facilitate this it is required that:

- **WHO-NPSP:**
  - Every district having KOSI riverine area will have more than one SMO posted to focus adequately in KOSI blocks. The 12 KOSI districts will have 37 SMOs posted.
  - To facilitate the stay in KOSI areas, 21 satellite offices have been established and 37 stay points have been identified.
    - These facilities will be utilised and strengthened.
    - SMOs and FVs will spend around 10 days (nights) every month in ACAs including the round and inter round period (preparatory phase).
    - Government Medical Officers and Partners will also be using these facilities.
    - These facilities may also be used for decentralised training or evening meeting.
  - Every KOSI block will have one dedicated Field Volunteer (FV) deployed. In the blocks with significant area inside embankment, one extra FV will be deployed to focus exclusively in inside embankment areas. The FVs deployed in these areas will get extra travel/ maintenance allowance.
  - The movement in these areas will be facilitated by providing option of contractual hiring of motorcycles and boats.

- **SM-Net:**
  - BMCs will be deployed in every KOSI block.
  - Every HtH team in ACAs will be supported by a CMC.
  - SMCs of KOSI district will be focussing in KOSI blocks to spend around 5-10 days (nights) per month in the ACA of these blocks.

- **Government:**
  - To fill the gaps in strength of MOs posted, the MOs from other blocks will be mobilised to KOSI Blocks.
  - Specific zonal responsibility of ACAs will be given to the MOs for preparatory phase as well as activity including evening meeting.
  - These Zonal MOs will stay in these ACAs for supporting the campaign on need basis.
District Health Officials will be allotted these blocks to oversee the preparation and activity.

2. **Intensified Government involvement**
   a. The KOSI Operational Plan will be shared by the Chief Secretary with all District Magistrates of districts involved.
   b. Principal Secretary Health will call a meeting of all Civil Surgeons from the concerned districts to share the plan and discuss on operationalization.
   c. The Health department will form a team of state monitors who will have direct oversight on these blocks.
   d. The state will reshuffle the resource to ensure adequate strength of MOs and Other health staff in KOSI blocks.
   e. The progress will be reviewed regularly at the state level in chairmanship of Principal Secretary Health.
   f. At the District level, District Magistrate will:
      i. Call a meeting of all SDM/ BDO/ CDPO/ MOICs to communicate the plan and discuss operationalization
      ii. Form a KOSI Task force as a sub set of DTF for reviewing the progress and providing technical guidance on implementation of this plan.
      iii. Deploy district level Health Officers to these blocks (for activity as well as preparatory phase).
      iv. District will reshuffle resources to ensure adequate staff strength at these PHCs.
      v. Block Task Force of these blocks will be strengthened and will get a direct oversight of District Magistrate.
      vi. Ensure that MOs are giving adequate inputs in ACAs of these blocks.

3. **Mapping:**
   a. Comprehensive operational map of all KOSI riverine blocks showing all clusters of houses, roads and rivers (& other geographical features) have been prepared.
   b. This will be updated for changes at least on quarterly basis.
   c. SIA and Surveillance related information will be plotted on this for identification of gaps and formulating corrective action points.

4. **SIA: Operations intensification:**
   a. **Appropriate microplanning:**
      - Regular in-depth microplan review by SMOs and field verification to ensure:
        - Completeness with regard to inclusion of all areas including BASAs and special sites.
        - Appropriate planning for BASAs, Schools/ Madarsas, Brick Kilns, Haats and Migratory families.
        - Appropriate transit coverage plan
        - Rational workload distribution based on number of houses as well as geography of the area (80 to 100 houses in inside embankment areas)
        - Appropriate team composition:
• Profile: Local female from same community-minority female if 2 or more work day in minority area and preferably ANM/ AWW / ASHA
• SM-Net through its chain of BMCs and CMCs will support in identification of BASAs/ Migratory populations. They will also support in identifying appropriate manpower from the same community.

b. TSA and monitoring findings:
• SMO will interpret the TSA to identify issues. He will also review monitoring findings.
• Using the TSA findings, Monitoring findings, issues from preparatory phase and management issue, a comprehensive list of issues will be compiled along with the level of intervention and timeline.

c. Performance/ issues tracking:
• Tracking of performance over the rounds to identify weak teams/ supervisors for intervention.
• Tracking of issues over the rounds for issues remaining unsolved.

d. Supervisor’s Re-orientation and BLTF:
• Will be conducted by SMO with the active involvement of MOI/C, MOs and CDPO.
• This will be done as per new supervisor orientation module and will be outcome oriented.
• The issues to be taken up in this will be pre-identified by SMO. The issues will be followed up over the rounds for the solution.
• SMC and BMC will take part in this to address SM issues.
• District Health Officials will attend these in KOSI Blocks.

e. Vaccinator’s/ Supervisor’s and SD Holder’s training:
• Will be de-centralised in inside embankment areas.
• Tracking of absentees by the name to ensure all vaccinators are trained.
• The sessions will be taken by SMO using interactive methodology as per new training Module.
• Transit teams, mobile teams and SD holders will be trained in separate training sessions.
• BMC/CMCs of SM-Net:
  • Will facilitate the information dissemination of training dates and facilitate the participation of vaccinators.
  • They will mobilise the absentee vaccinators to attend the catch up sessions.
  • They will also attend the trainings to have a common understanding of the program
• The MOIC and Zonal MO will be actively involved in the process.

f. HtH team activity:
• Identification and tracking of every newborn remains a priority.
• Focus on children outside houses, in fields and in BASAs around village etc.
• Increase focus on children from X houses and X to P conversion particularly the previous day X to P conversion.

g. Strengthening of transit team activity:
• Microplan review and field validation to ensure:
  • Appropriate placement of transit teams to cover all important sites and important timings. All major cross over points in riverine areas will be covered.
  • Appropriate manpower selection (young but not under age and proactive active members).
  • Separate training sessions for transit members with focus on importance of being proactive and appropriate behaviour.
  • Planned monitoring of transit teams with improvement oriented feedback to appropriate level.
  • Melas: Event calendar will be part of microplan. SMO will guide for appropriate coverage plan of all such events. There will be special plan for monitoring of coverage of these events.

h. Mobile team activity:
• Mobile teams will be used for coverage of outreach BASAs, Cluster of Brick Kilns, Special sites, Haats etc.
• Haats: Identification and coverage of all major haats for whole duration. These will be included in monitoring plan.
• BASAs: To be covered as per new BASA SOP. There will be special BASA monitoring plan.
• Every mobile team will be monitored during every round in ACAs of KOSI Blocks.

i. Migratory families:
• These include Brick Kilns, Nomadic families, construction workers and agricultural labourer’s families.
• A proactive search of these families will be done by FVs and BMC/CMCs for inclusion in microplan.
• These will be covered as per SOP for migratory families.
• Special monitoring plan will be made to monitor all such sites.

j. Ensuring early vaccine delivery to these areas:
• The vaccine will reach in Sub Depots in this area by 7:00 AM.
• Alternate mode of delivery will be explored and used in controlled manner wherever required. (overnight withholding and nearest PHC approach)
• CMCs will support in facilitating movement across river cross over by arranging boats.

k. Comprehensive monitoring:
• M0 will be made by SMO and cross checked by SRTL to ensure that 100% teams and at least 50% team days are monitored in these areas.
• Best monitors will be deployed in these areas.
• The monitors will be briefed following standard guidelines as per new monitors briefing module
Quality of monitoring will be ensured by regular monitoring of monitors as per SOP.

Monitoring will be comprehensive by SMO/ FV/ EM and include:
- Vaccine delivery: SD location and staffing, time of delivery
- Transit team planning and performance
- Special efforts for finding missed areas, BASAs, Brick Kilns etc. and also performance and planning of mobile teams.
- Components of HtH activity including previous day X to P conversion.
- Monitoring of supervisor for their work and performance.

**Operational Grid Approach:**

**Grids:**
- To intensify monitoring and field presence of all partners in bordering areas within the KOSI islands, Grid approach was started in Feb’2008.
- Grid is a cluster of villages within Access Compromised area that are easily accessible from a grid station/ nodal point without regard to administrative boundaries: different areas administratively but geographically one unit.
- Every grid is allocated to a district with easier access. The part of grid belonging to this district is called ‘Mother area’ and other parts are called ‘Other area’
- Grids are part of ACAs
- 31 grids have been identified across 31 blocks of 12 districts. These cover around 517 villages.
- Depending on changing geographical situation, boundaries of the grids will be modified.

**Monitoring:**
- Grid wise monitoring is over and above normal monitoring in ACA.
- The Mother unit will deploy monitor/s for every grid (number depending on size of grid).
- 100% teams and 50% team days of both MOTHER and OTHER areas will be monitored.
- The microplan and M0 of grids will be shared timely by the districts.
- The areas falling in OTHER grids will also be taken up for monitoring by MOTHER districts in coordination with concerned districts to avoid overlapping.

**Feedback:**
- The feedback of activity, monitoring and evening meeting along with the action taken will be shared by the Grid monitor to the Grid SMO and concerned block FV. The Grid SMO/ Block FV will share this information with SMO & FV of concerned district as well SIA Nodal SMO of Mother Unit.
- SIA Nodal SMO of Mother district will also share this information with the Other District SMO and his SRTL.
- SRTL will share this with concerned SRTLs and RTL Office.
At all levels (Team, PHC and District level) the feedback will be concurrently shared with government counterparts for corrective action.

The feedback sharing protocol as mentioned above will be followed for concurrent as well as final feedback.

1. **Evening meetings:**
   - Will be held at decentralised places and will have presence of SMO, BMC/SMC and Government MOs.
   - During the round, on at least one day it will be attended by MOIC.
   - The duration will not extend for more than one hour.
   - The supervisors will communicate the discussed action points to the teams on next day.

2. **Logistics Support:**
   - In the tough geographical conditions, there is high wear and tear of cold chain equipments. Therefore KOSI blocks will be supplied Cold Boxes, Vaccine Carriers and Ice Packs in adequate quantity on priority basis.
   - To cater the need of head loads, Small Cold boxes will be supplied in these blocks.

3. **Motivation of Manpower:**
   - To sustain the motivation of vaccinators and Supervisors, it is important that the honorarium is distributed timely.
   - Other initiatives like certificates/ other incentives could be given to boost the Morale.

5. **Mobilization intensification:**
   - Increased community involvement through the BDO/SDO and PRI structure to include information on the coming rounds and demand generation for vaccine.
   - Intensified SM activities through SM-Net for increasing vaccine acceptability in refusal areas of ACAs.
   - CMCs with every team in ACAs to mobilize children in underserved/ Mahadalit communities and children in X houses.

6. **Data segregation & analysis**
   - **ACA:**
     - As the area inside embankment has different socio-demographical features, there is need to analyse data of KOSI blocks as per ACA & Non ACA (or inside and outside embankment).
     - All SIA data will be tagged at the block level as ACA/ Non ACA. This data will be compiled and analysed at all levels with this tagging.
     - The tagging will be done for reported data, monitoring data as well as preparatory phase data.
   - **Grid Data:**
     - The data will be collected and compiled and analysed as per the grid also.
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- Coverage and preparatory data of each grid area will be sent by concerned mother area districts and will be compiled at RTL Office level.
- Monitoring data will be handled and transmitted by Mother Unit of Grid.
- The compiled and analysed data will be transmitted to the field Units by RTL Office.

- For the streamlining of this and tracking of progress a standard set of formats and indicators will be floated by the RTL Office.

7. **Surveillance intensification:**
Maintaining a highly sensitive surveillance system in the KOSI riverine area is very important. Despite better than the average surveillance indicators in this area, genetic epidemiology suggest that at least a low level transmission was missed in this area. To further strengthen surveillance in this area, following plan of action is suggested:

- Analysis of surveillance data:
  - Surveillance review meetings at the district every alternate Wednesday to identify possible gaps and formulating action plan for strengthening.
  - Analysis of data for ACA and Non ACA as well as per high risk sub groups.
  - The AFP cases and reporting network will be plotted on topographical map of the KOSI blocks for identification of areas with the surveillance gaps.

- Identification of informers:
  - All practitioners featuring in HFCA will be included in Network of reporting sites.
  - In inside embankment area, identify all potential informers/practitioners through all sources and assess them for inclusion in network.
  - Include all major practitioners of the area specially the ones catering to high risk sub groups. Roughly, every revenue village will have at least one informer.

- ACS:
  - All informers in inside embankment areas will be visited at least every month.

- Vaccinators and Supervisors will be sensitized in trainings to search for AFP cases during the SIA activity. The daily feedback on AFP cases will be taken in evening meeting during SIAs. This component will be monitored by monitors.

- Stool tracking:
  - Will be done for all cases using standard format and
  - The format will be cross checked by SMOs/SRTLs.
  - 20% of sample collection will be verified in the field by SMO.

- AFP workshops in inside embankment areas to sensitize informers and other practitioners.

8. **Convergence:**
Apart from challenges in reaching and sustaining high SIA coverage, these areas have poor coverage of Routine immunization, lack of clean water and hygienic practices, recurrent diarrhea and absence of exclusive breast feeding. These factors reduce the uptake of OPV vaccine in the gut of children.
IEAG Meeting conducted in November’09 endorsed the strategy of promotion of Routine Immunization, Zinc-ORS, Sanitation & hygiene and safe water.

To address this, the ongoing and planned efforts in the field of water & sanitation, Routine Immunization, Z-ORS and other health initiatives will be prioritized for KOSI riverine areas.

- **Routine Immunization:**
  a. Government will intensify the oversight and prioritize resources in the KOSI riverine areas to ensure 100% geographical reach of RI.
  b. WHO and UNICEF will support RI microplanning in these areas. They will also prioritize and intensify monitoring of RI (Session sites as well as House to House) in these areas.
  c. Capacity building of frontline health worker and mid level managers for delivery of RI services and supportive supervision will be done with the support of partners.

- UNICEF will facilitate and support Government in convergence of promotion of Zinc-ORS, Sanitation, Vitamin A and de-worming in KOSI riverine areas as per the **KOSI-Convergence document.**