

Oil & Gas Pipelines Safety - Gujarat

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Issues and Challenges



EX-CEO GSDMA

6/30/14

Presentation Structure

- Overview – Gujarat Context
- Institutional Framework
- Challenges
- Suggestions

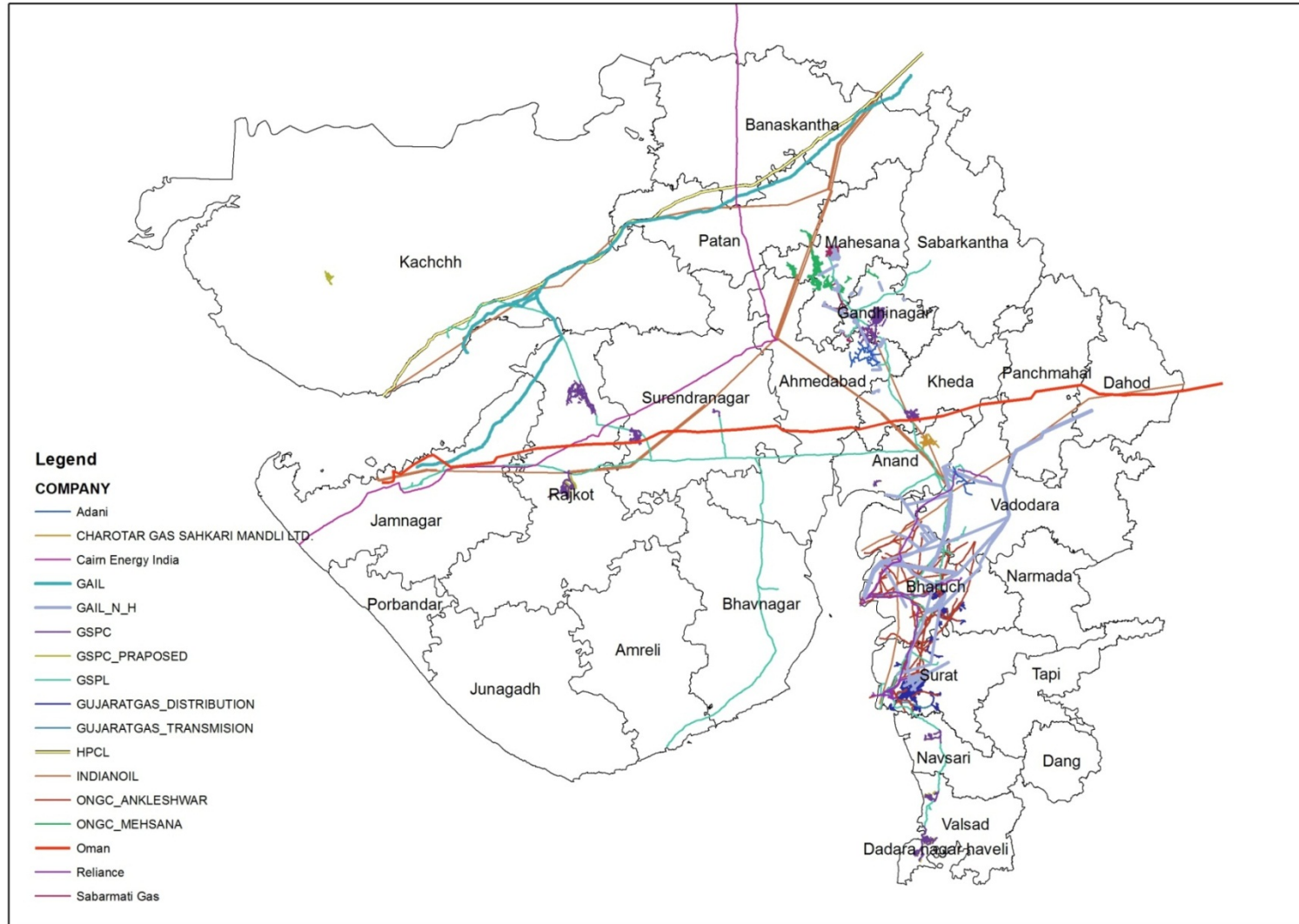
Oil & Gas Pipeline Network - Gujarat

- Gujarat currently has the most developed pipeline network in the country.
- Total length: 21,091 Km
 - Gas: 13,232 Km
 - Oil: 7,869 Km
- Pipeline Operators:
 - Adani,
 - Gail (India),
 - Cairn,
 - Charotar Gas,
 - GSPC,
 - Gujarat Gas,
 - HPCL,
 - IOCL,
 - ONGC,
 - GSPL,
 - Reliance,
 - Sabarmati Gas,
 - Bharat - Oman

Vulnerable Villages

Sr. No.	Nos. of Pipelines Passing through Villages	Nos. of Villages Affected
1	6	1
2	5	15
3	4	59
4	3	176
5	2	544
6	1	1723
Total ...		2,518

Pipeline Mapping



GSDMA has developed a comprehensive GIS application to map the pipeline network across the entire state

Institutional Framework

- The Petroleum and Minerals Pipelines (Acquisition of Right of Users Inland) Act, 1962
 - Central Government (MoPNG) through notification in official gazette defines the Right of User, OR
 - Any Competent Authority authorized by Central Government
- Petroleum Rule 2002
 - Technical approval (design, safety features, patrolling, additions and alterations, repairs and maintenance, etc.) for lying down the pipelines is the responsibility of PESO.
- Petroleum and Natural Gas Regulatory Board Act 2006-Section 11
- Safety in Offshore Operations Rules, 2008 6/25/14

Challenges

- Can the existing slew of pipelines be rationalized or are the powers of the PNRGB u/s 11 of the Act applicable to prospective pipelines?
- Where common carriers are not possible, can realignment of existing pipelines be mandated to reduce hazard and vulnerability?
- For new pipelines, common carriers or contract carriers can it be made mandatory to get prior clearance of GSDMA considering the Hazard Risk and Vulnerability Analysis(HRVA)
- Coordination mechanisms between various pipeline operators while laying pipelines
- Distance between pipelines-pipelines and critical infrastructure

Challenges

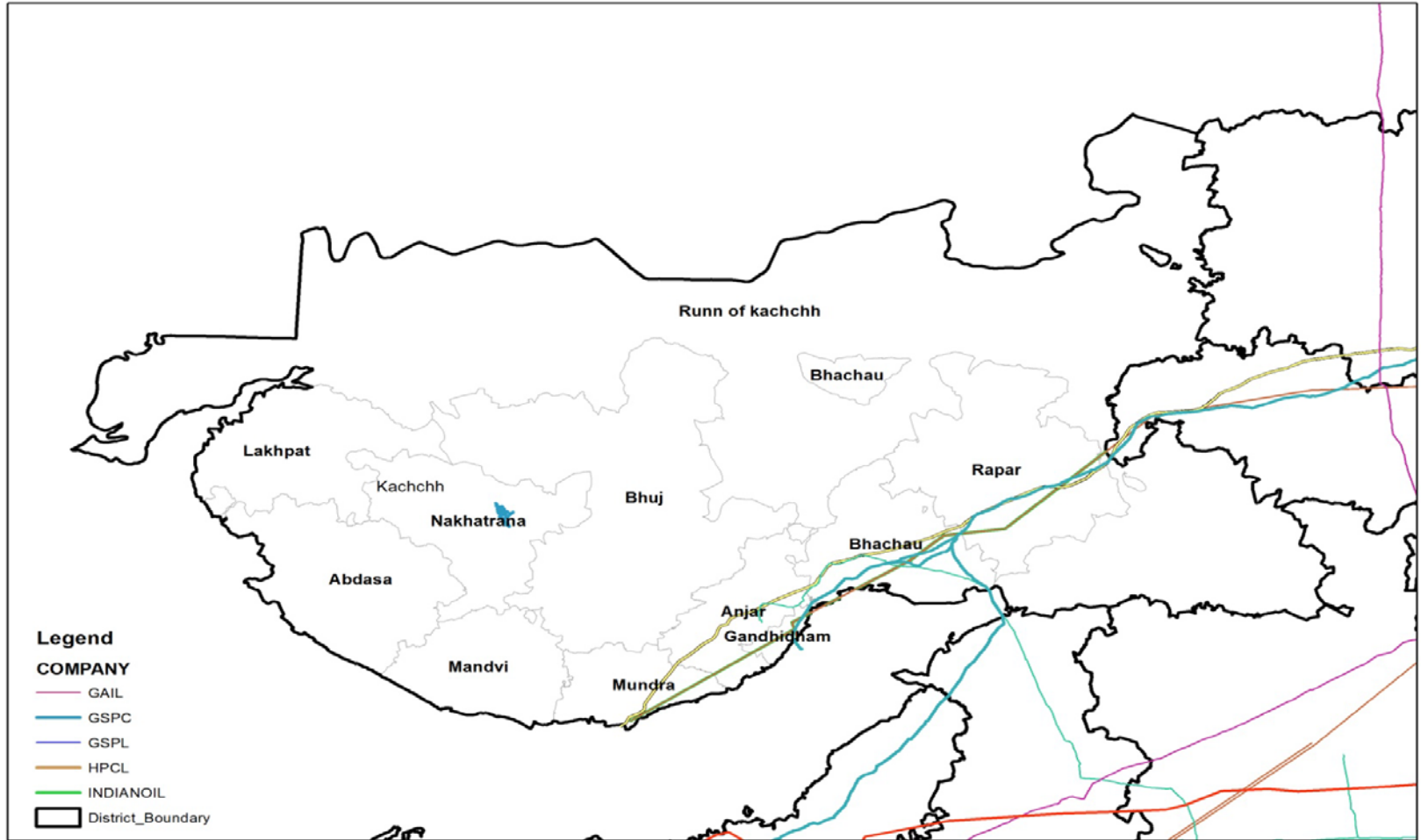
- Technical safety standards for lying pipelines under river bed, natural and man-made disaster vulnerable areas, etc.
- Soil erosion protection near river banks
- Role of SDMAs and other State Government authorities
- Role of District Administration
- Community awareness-the role of CSR

Suggestions

Suggestion - 1

- HRVA of the area must be considered before laying pipelines

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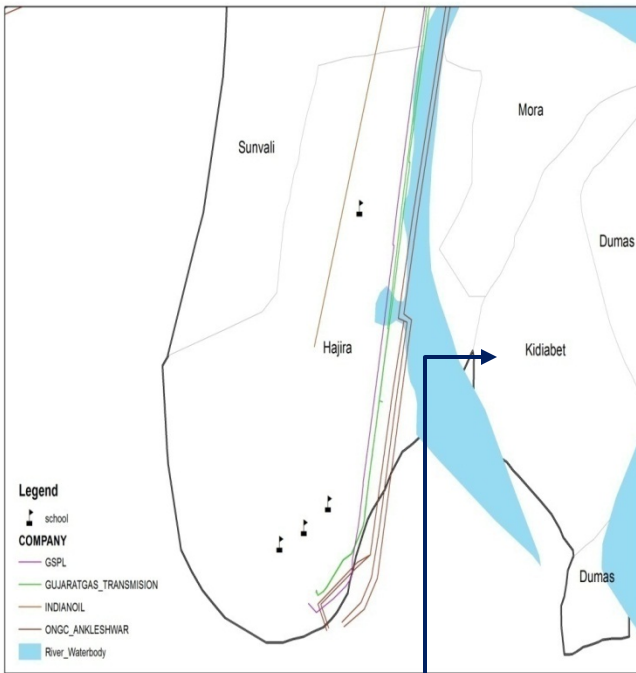


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Suggestion - 2

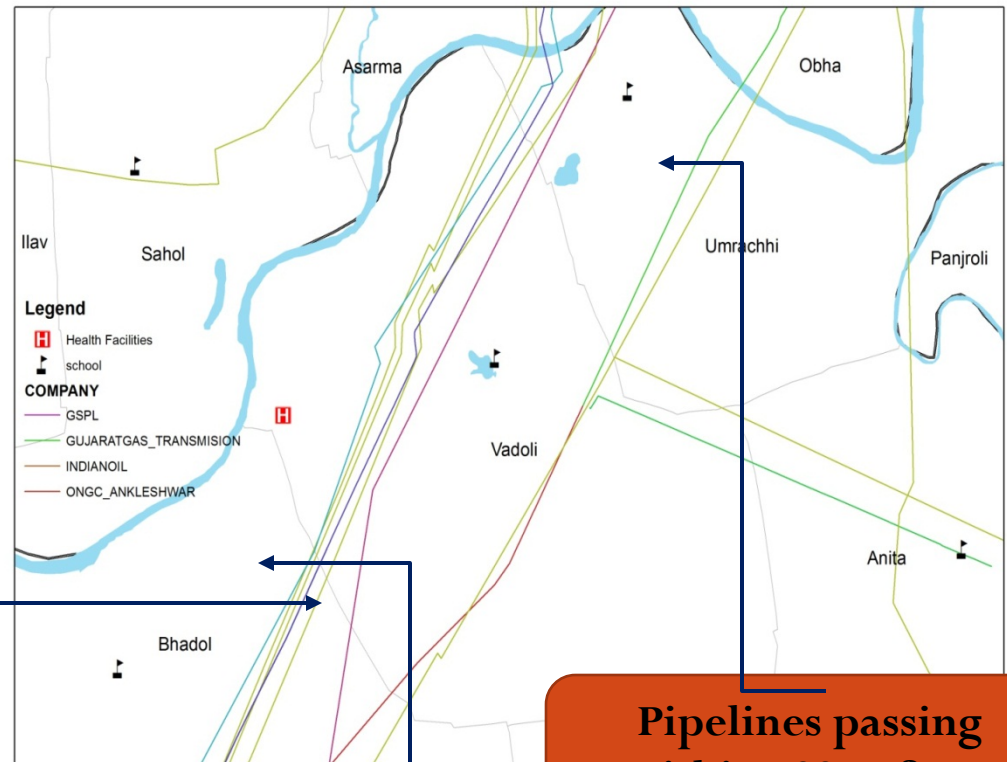
- Minimum distance between pipelines and from critical infrastructures (school, hospitals, etc.) must be recognized

Village- Hazira



5/6 Pipelines within 300 m

Village: Vadoli – 9 pipelines of 6 different operators are passing through/nearby village



Pipelines passing within 500 m from Schools and Hospitals

“Examine the construction in any area in the district and, if it is of the opinion that the standards for the prevention of disaster or

- **Prior notice to SDMA must be given before laying** *mitigation laid down for such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards”*

- DM Act 2003 – Section 29

Each factory, private and public sector entity shall assist state government to take all necessary steps for disaster management”

- DM Act 2005 – Section XXIII

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- The initial notification of an incident/accident to SDMA and DEOC must be done by the occupier/ owner of the pipeline or by contractor. This should be mandatory.
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Suggestion - 5

- Checking the qualitative output of TPAs. Some of the Reports show that TPAs do not want to “upset” the Operators for obvious reasons

Thank You..



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