

*NTDPC*

*Summary of  
Recommendations*

*Railways*

**5<sup>th</sup> January 2013**

# Summary of Recommendations

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- *Goals for the year 2032 and Business Strategy*
- *Capacity creation and Investment requirements*
- *Clarity on Social and commercial objectives*
- *Organisational Reforms; HR Systems; R&D; Information Technology*
- *Safety; Resource mobilization; Optimisation of land use*

# Goals for the year 2032 and Business Strategy

## ■ Goals for the year 2032

### ■ Freight business:

- Aim to attain 50 percent market share in inter-regional freight traffic by 2032 (currently 36 percent; expected to touch 27.5 percent by 2020)
  - Grow at 10-11 percent till 2022; 16-17 percent thereafter (average 13.5 percent for 20 years)

### ■ Passenger business:

- Aim for 8 percent growth in originating passengers & 10 percent growth in PKM to satisfy passenger service demand in full (current modal share of rail - 13 percent)

# Goals for the year 2032 and Business Strategy

## ■ Business strategy

### ■ Freight business strategy:

- Consolidate market share in existing segments through increased customer orientation
  - Last mile connectivity is key
- Capture market share in new segments (fast-growing FMCG, Consumer Durable and Information Technology (CDIT), containerized cargo and other segments like automobiles etc.)
  - Growth will come mainly from non-bulk
  - Railways has to reinvent itself as a multimodal logistic player in an extremely competitive market

### ■ Parcel business strategy:

- A shift of long distance (500 km and above) transport of parcels - essentially non-bulk packaged items - to rail is a must
- Set up a FBO for multimodal transport of non bulk commodities (under the PPP mode), combining the efficiency and advantages of rail and road

### ■ Passenger business strategy

- **Non-suburban:** Separation of freight traffic lines for speed and capacity
  - improved services linked to rationalization of tariffs
- **Suburban:** Focus on corridors involving dense passenger movements
  - physical separation of networks and organisation is a must

# Goals for the year 2032 and Business Strategy

- **Freight business strategy:**
  - Development of selected corridors for heavy-haul operations
  - Running of trains on schedule with guaranteed transit time
  - Reduction in cargo parcel size to 1000 tonnes and aggregation mechanism for even smaller parcel-sizes
  - Running of premium freight services with differential pricing and assured deliveries
  - Supply of rakes on demand with differential pricing for different demand lead times
  - Provide an Intermodal transport system combining the advantages of rail and road
  - Running of automobile, hazardous material trains, movement of bulk cement, etc by private train operators.
  
- **Passenger business strategy**
  - **Non-suburban:**
    - Upgradation of speed to 160-200 kmph on select corridors
    - Redevelopment of stations & redesign of coaches to enhance travel comfort
    - Conversion of all stopping passenger trains to EMUs/DMUs or railcars
    - Invitation to state governments to manage uneconomic and un-patronized services
    - Augmentation of supply to ensure full satisfaction of demand
  
  - **Suburban**
    - Unlock commercial potential of assets
    - Tariff independence, localised pricing strategy, separate funding

# Summary of Recommendations

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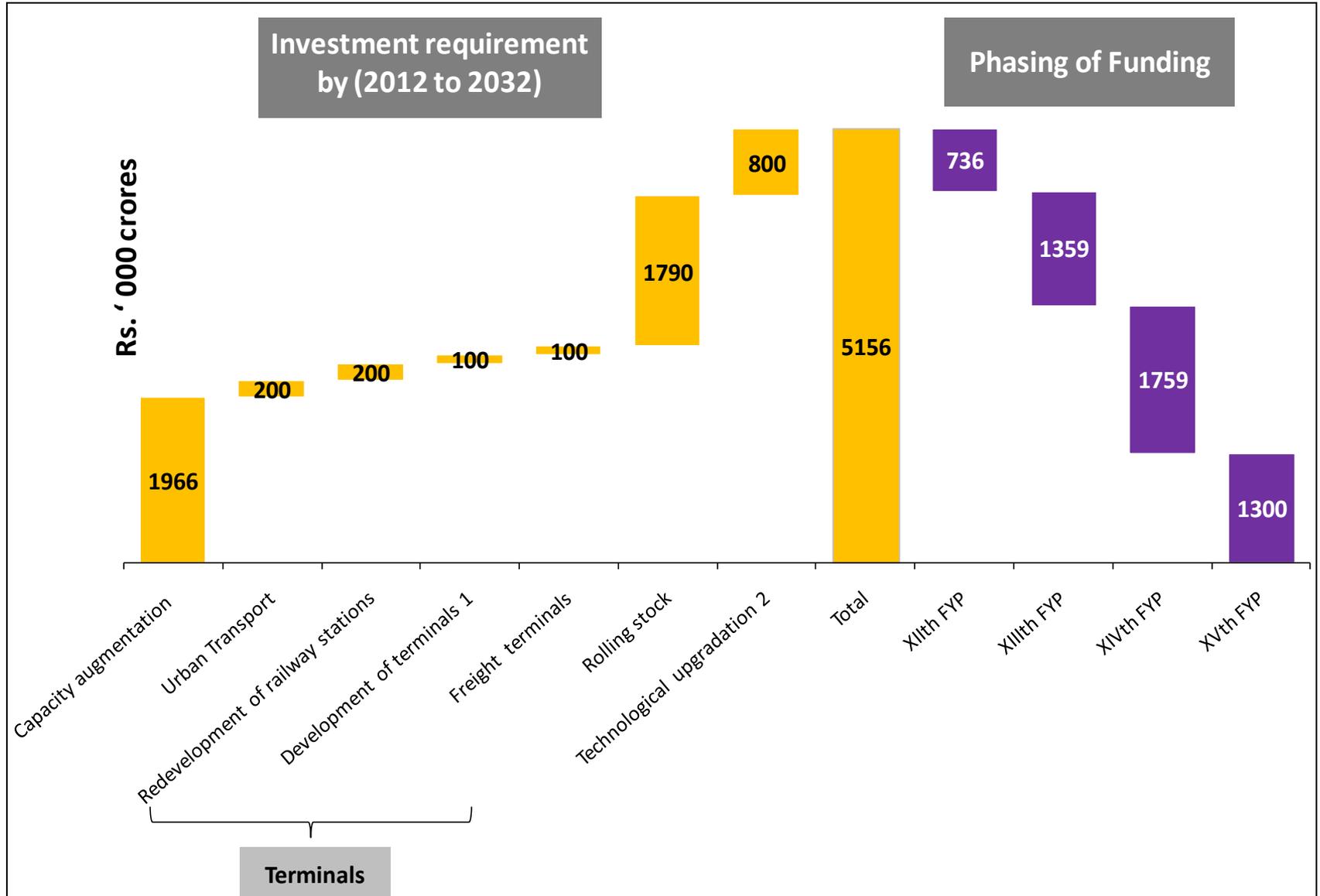
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# Capacity creation & investment requirements

- **Capacity creation**
  - **Construction of 6 Dedicated Freight Corridor on top priority**
    - Private sector participation to be encouraged for development and operations of the DFCs
  - **Improve connectivity to 400 industry clusters, 200 ports (major and non-major) involving nearly 750 last mile rail connectivity works**
    - Development of last mile connectivity on PPP in a time bound manner
  - **Development of 15 to 20 logistics parks as the main network hubs**
    - Work closely with state and city authorities to set up rail-based multi-modal logistics parks to attract increasing volumes of miscellaneous cargo to rail
  - **Improved infrastructure and rolling stock maintenance**
    - Upgradation of wagons and track to 25 tonnes axle load
    - Upgradation of rail wagons (higher axle load , better tare to pay-load etc.)
  - **Development of select HSR projects on a pilot basis**
    - Projects to be taken up only if they are self financing/commercially viable
  - **Expand partnership with private sector to facilitate development of private freight terminals, operation of container, automobile and special freight trains and third-party leasing of wagons**

# Capacity creation & investment requirements

## Investment requirements



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# Clarity on Social and commercial objectives

## ■ Investment Planning

- Shift to a programme approach from the current project-oriented approach
  - Institutionalize a strategic planning process taking a forward view of next 20 years
  - Involve the Zonal Railways and key stakeholders in preparation of the plan
  - Include a multi-year investment plan fully supported by a credible funding plan
- Prioritize quick pay-off projects that can ease the capacity constraint
- Ad hoc approach presently followed for appropriation to DRF to be overhauled and a rule-based approach to be put in place
- Investment should be focused on total capacity creation including rolling stock, asset renewal, technology induction, Information Technology and identified investments in modernization etc.

## ■ Project Execution

- Funding to be earmarked for each capacity enhancement project before it is taken up. Concept of financial close may be introduced for each project
- Funds to be provided on grant basis for building new lines for social considerations
- Project teams to be held accountable for timely completion of the projects
- Project managers to continue in their positions till project completion
- Introduce Performance-linked incentives and penalties for failure

# Clarity on Social and commercial objectives

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- **Tariff Setting**
  - **Set up an independent Rail Tariff Authority** for fixation of rates and fares
  - A realistic programme of fare revision to be designed to reduce/eliminate the losses on passenger services
  - Government may subsidise up to 25 percent of the costs of Sub-urban railways and no subsidy may be provided for non-suburban railways

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# Organisational Reforms; HR Systems; R&D; Information Technology

## ■ Organisational Reforms

- **Separation of policy making and operational responsibilities at the Railway Board (RB) level:**
  - RB should limit involvement to strategic planning and policy making;
  - RB to function like the board of a company with clear focus on business, bottom-line and other clearly defined objectives
- **Reorganization on business lines:**
  - IR to be reorganized in terms of business lines (including Railway Board)
  - Infrastructure management, freight transportation, passenger (suburban/non-suburban) transportation, parcel etc. to be organized as separate profit-centres
- **Non-transportation task:** All activities outside the core transportation operations to be critically reviewed for either retention or outsourcing
  - Corporatization of production units
- **Accounting Reform:** IR to follow accrual based account system in parallel to government accounting
  - Provide activity-based revenue cost data meeting generally accepted accounting standards
- **Organisation for PPP:**
  - Set up a PPP Cell in the RB with officers drawn from all relevant disciplines (including Finance) with support staff to formulate and award PPP projects

# Organisational Reforms; HR Systems; R&D; Information Technology

## ■ Organisational Reforms

### ■ Empowerment of Zonal Railways:

- GMs of Zonal Railways to be empowered to take decisions that enhance revenue, reduce costs or build platform for higher growth in future without reference to RB (within a framework of rules and investment limits)
- Zonal Railways to be accountable for return on capital, transport output, profitability and safety

## ■ Human Resources

- Rationalization and consolidation of the multiple services and cadres to be attempted without sacrificing the benefit of specialization and business oriented capabilities
- Induction of unskilled staff to be reduced and gradually done away with
- Recruitment processes to be supplemented by induction and in service training to constantly upgrade the skills of employees
- Recruitment of highly qualified PhDs from IIMs/IITs and lateral recruitment from market to be considered for specialist functions with suitable compensation
- Rewards for collective performance and variable pay linked to incremental surplus generated by various units to be implemented

# Organisational Reforms; HR Systems; R&D; Information Technology

## ■ Research and Development

- Establish a National Railways Research Institute of substantial size
- Establish at least 5 Railway Research Centers in technical institutes (IITs and RECs) and IIMs
- RDSO to be restructured and empowered:
  - RDSO to be granted greater autonomy for financial matters pertaining to procurement of lab and testing equipment, trials and projects
  - Standard-setting and Inspection units to be separated from actual R&D
  - Vendor development by RDSO needs to be transferred to the Zonal railways / Production Units
  - A challenging work environment and performance-linked career progression to be provided
  - R&D unit to be reconstituted as a new organisation after careful study of venerable R&D organizations like TTCI of USA or RTRI of Japan and C-DOT and DRDO in India (technology approval takes 10 years in the current set up)
- Manufacturers of railway products to be involved in R&D; Setting up of new units with participation of private-sector
- Result-oriented research teams to be set up to work on specified research projects including participants from outside IR (research/academic institutions, OEMs etc.) contracted for the duration of the project

# Organisational Reforms; HR Systems; R&D; Information Technology

## ■ Research and Development

### ■ RDSO to be revamped completely:

- Standard-setting and Inspection units to be separated from actual R&D
- Vendor development by RDSO needs to be transferred to the Zonal railways / Production Units
- A challenging work environment and performance-linked career progression to be provided
- R&D unit to be reconstituted as a new organisation after careful study of venerable R&D organizations like TTCI of USA or RTRI of Japan and C-DOT and DRDO in India (technology approval takes 10 years in the current set up)

### ■ Result-oriented research teams to be set up to work on specified research projects including participants from outside IR (research/academic institutions, OEMs etc.) contracted for the duration of the project

### ■ Manufacturers of railway products to be involved in R&D

### ■ Setting up of new units with participation of private-sector

### ■ RDSO to be granted greater autonomy for financial matters pertaining to procurement of lab and testing equipment, trials and projects

### ■ An Integrated Energy Management System (IEMS) to be set up under a separate directorate in the Railway Board

# Organisational Reforms; HR Systems; R&D; Information Technology

## ■ Information Technology

- A centralized framework for need assessment, prioritization and project implementation to be created
- Use of existing IT infrastructure to be optimized
- Adoption of relevant emerging technologies like cloud computing and crowd sourcing, systematically planned
- A panel of technology leaders to be involved in an advisory capacity to advise Railways on selection of IT platform and creation of homogenous framework

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# Safety; Resource mobilization; Optimisation of land use

## ■ Safety

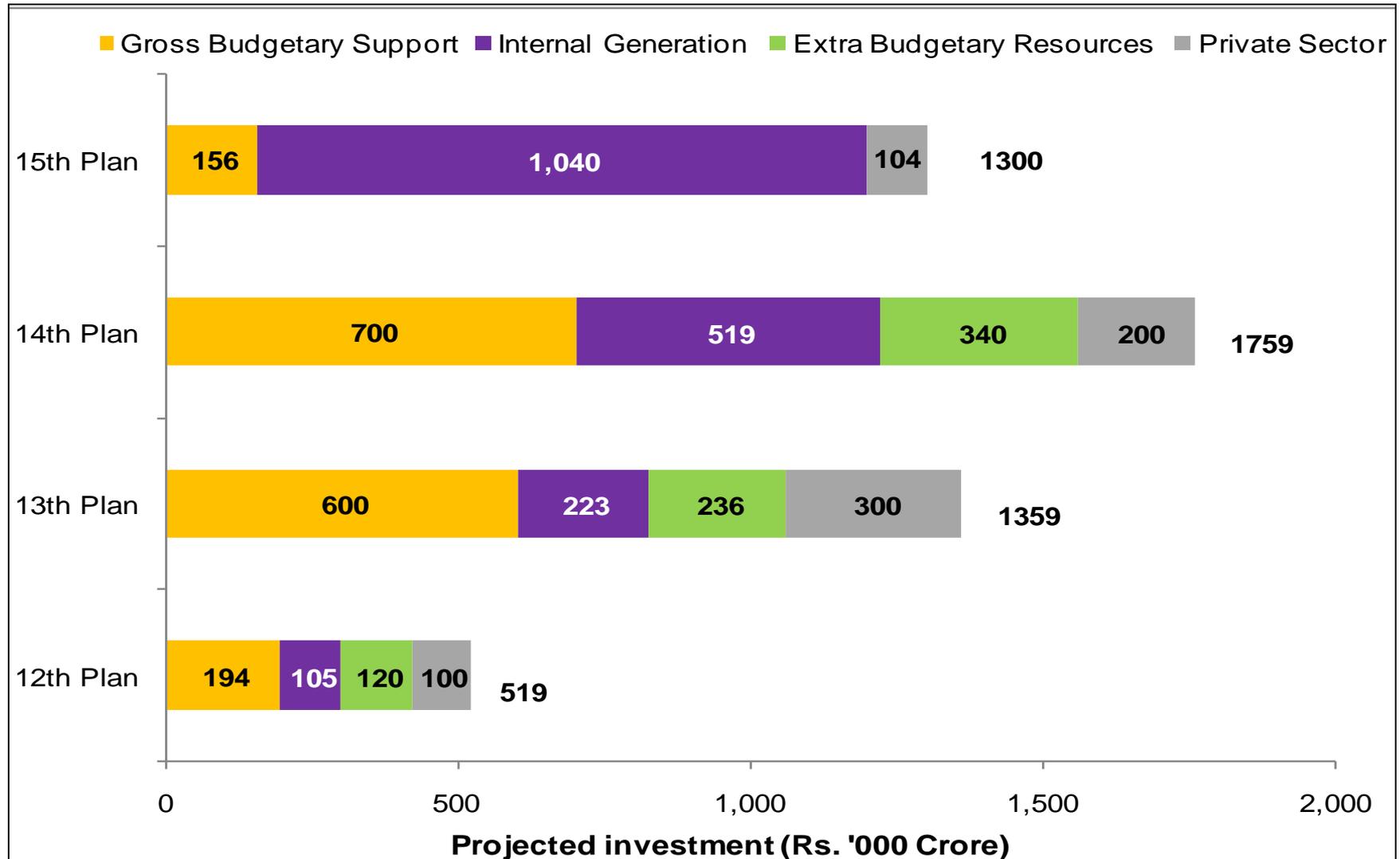
- **Railway Safety Authority (RSA)** should be set up
- Stop practice of introduction of new trains without commensurate inputs to the infrastructure
- Adopting an advanced signalling system similar to ETCS Level-II on the entire trunk routes of about 19,000 route kilometers within 5 years
- Total elimination of all level crossings (manned and unmanned) within 5 years

## ■ Optimisation of Land Use

- **Infrastructure Corridors:** A master-plan for the country to be conceived and land for infrastructure corridors can be reserved
  - Railway lines, expressways, power transmission lines and pipe lines can use the corridor and run alongside
  - Develop a suitable legal and institutional framework to implement the concept
- A standard template to be developed for redesign and redevelopment of the stations
- Land resources not to be used for non-productive railway projects; should be used for modernization etc.
- Schedule of Dimension (SOD) and Maximum Moving Dimension (MMD) improvements to be undertaken

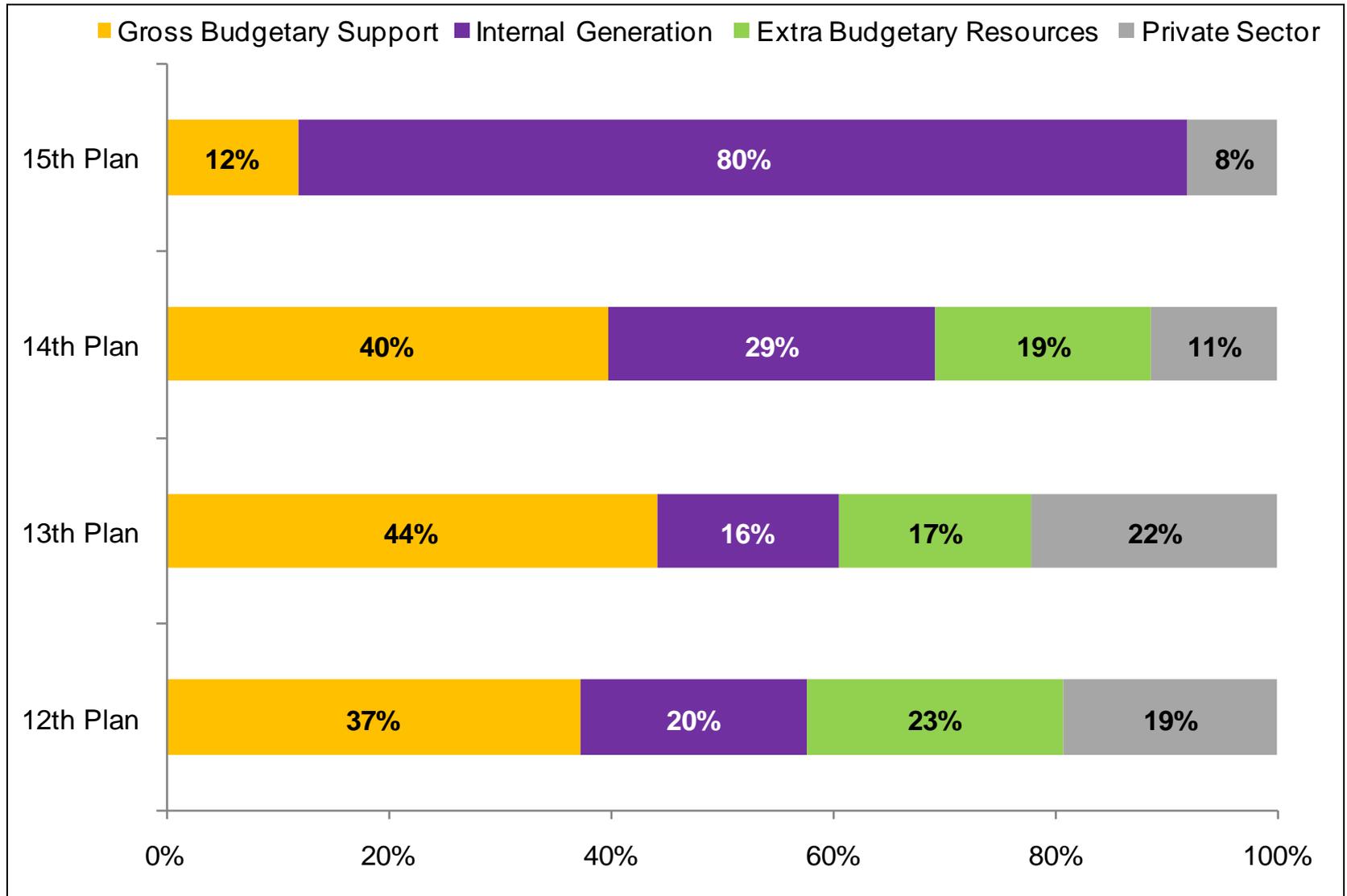
# Safety; Resource mobilization; Optimisation of land use

## Resource Mobilization



# Safety; Resource mobilization; Optimisation of land use

## Resource Mobilization



*Thank You !!!!*