

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**LOK SABHA  
UNSTARRED QUESTION NO. 2265  
TO BE ANSWERED ON 02.08.2023**

**REVAMPING SIGNALLING SYSTEM**

**2265. SHRI DEEPAK BAIJ:**

**Will the Minister of RAILWAYS be pleased to state:**

- (a) whether the Government plans to modernise/revamp signalling system in Indian Railways in view of Balasore accident;**
- (b) if so, the details thereof along with the funds allocated for the same during 2023-24;**
- (c) the details of fund allocated, released and utilised for revamping of signalling system in Indian Railways during the last five years, year and zone-wise; and**
- (d) the details of tenders invited for revamping of signalling system during 2023-24?**

**ANSWER**

**MINISTER OF RAILWAYS, COMMUNICATIONS AND  
ELECTRONICS & INFORMATION TECHNOLOGY**

**(SHRI ASHWINI VAISHNAW)**

**(a) to (d) A Statement is laid on the Table of the House.**

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**STATEMENT REFERED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2265 BY SHRI DEEPAK BAIJ TO BE ANSWERED IN LOK SABHA ON 02.08.2023 REGARDING REVAMPING SIGNALLING SYSTEM**

**(a) Modernisation of signalling systems of Indian Railways is a continuous process and is undertaken in order to improve the safety in train operation. Some of the steps taken by Indian Railways for modernisation of Signalling system are:**

- (i) An in principle decision taken to provide Electronic Interlocking (EI) in future at all installations. EI are being adopted on a large scale to derive benefits of digital technologies in train operation and to enhance safety. So far, 3108 stations have been provided with EI upto 31.05.2023. Further, On Indian Railway 6427 (98.8% of total stations) Stations have been equipped with Electrical/Electronic Signalling Interlocking System up to 31.05.2023 replacing old mechanical signalling.**
- (ii) Axle Counters for Automatic clearance of Block Section (BPAC - Block Proving by Axle Counter) are provided to ensure complete arrival of train without manual intervention before granting line clear to receive next train. These systems have been provided on 6397 block sections upto 31.05.2023.**
- (iii) In order to enhance safety at Level Crossing (LC) gates, interlocking of Level Crossing gates with Signal have been provided at 11093 Level Crossing as on 31.05.2023.**

- (iv) Kavach is indigenously developed Automatic Train Protection (ATP) system adopted by Indian Railway. Kavach aids the loco pilot in train running within specified speed limits by automatic application of brakes in case Loco Pilot fails to do so and also help the train safely run during inclement weather. Kavach has so far been deployed on 1465 Route km and 121 locomotives (including Electric Multiple Unit rakes) on South Central Railway.**
- (v) Issue of standard typical circuits for EI system (Version-1 in 2019 and Version-2 in 2022): Adoption of standard typical circuits helps in standardization of application logic circuits of EI over Indian Railways.**
- (vi) Use of Automation tool in Signal design.**
- (vii) Development of direct driving feature in Electronic Interlocking.**
- (b) Funds amounting to ₹ 4198Crores have been allocated for Signalling works in FY 2023-24.**

**(c) Information is as under:**

**Year-wise and Zone-wise Details of Funds Allocation & Utilization**

(₹ in Crore)

<b>Zonal Railways</b>	<b>Funds for 2018-19</b>		<b>Funds for 2019-20</b>		<b>Funds for 2020-21</b>		<b>Funds for 2021-22</b>		<b>Funds for 2022-23</b>		<b>Funds for 2023- 24</b>
	<b>Alloca- -tion</b>	<b>Utiliz- -ation</b>	<b>Alloca- -tion</b>	<b>Utiliz- -ation</b>	<b>Alloca- -tion</b>	<b>Utiliz- -ation</b>	<b>Alloca- -tion</b>	<b>Utiliz- -ation</b>	<b>Alloca- -tion</b>	<b>Utiliz- -ation</b>	<b>Alloc- -ation</b>
<b>Central</b>	<b>104</b>	<b>113</b>	<b>116</b>	<b>153</b>	<b>115</b>	<b>127</b>	<b>130</b>	<b>131</b>	<b>168</b>	<b>171</b>	<b>238</b>
<b>Eastern</b>	<b>80</b>	<b>97</b>	<b>62</b>	<b>80</b>	<b>66</b>	<b>64</b>	<b>101</b>	<b>73</b>	<b>78</b>	<b>117</b>	<b>141</b>
<b>Northern</b>	<b>146</b>	<b>130</b>	<b>128</b>	<b>133</b>	<b>271</b>	<b>267</b>	<b>303</b>	<b>282</b>	<b>258</b>	<b>308</b>	<b>401</b>
<b>North Eastern</b>	<b>49</b>	<b>50</b>	<b>45</b>	<b>43</b>	<b>53</b>	<b>54</b>	<b>46</b>	<b>51</b>	<b>99</b>	<b>76</b>	<b>131</b>
<b>North East Frontier</b>	<b>48</b>	<b>50</b>	<b>36</b>	<b>44</b>	<b>52</b>	<b>37</b>	<b>52</b>	<b>54</b>	<b>56</b>	<b>55</b>	<b>176</b>
<b>Southern</b>	<b>111</b>	<b>96</b>	<b>82</b>	<b>105</b>	<b>156</b>	<b>219</b>	<b>266</b>	<b>279</b>	<b>307</b>	<b>368</b>	<b>382</b>
<b>South Central</b>	<b>120</b>	<b>116</b>	<b>80</b>	<b>85</b>	<b>187</b>	<b>138</b>	<b>174</b>	<b>161</b>	<b>134</b>	<b>130</b>	<b>174</b>
<b>South Eastern</b>	<b>135</b>	<b>144</b>	<b>118</b>	<b>131</b>	<b>125</b>	<b>117</b>	<b>131</b>	<b>133</b>	<b>101</b>	<b>105</b>	<b>335</b>
<b>Western</b>	<b>121</b>	<b>122</b>	<b>144</b>	<b>169</b>	<b>146</b>	<b>150</b>	<b>236</b>	<b>179</b>	<b>159</b>	<b>177</b>	<b>235</b>
<b>East Central</b>	<b>152</b>	<b>198</b>	<b>152</b>	<b>168</b>	<b>125</b>	<b>136</b>	<b>161</b>	<b>140</b>	<b>174</b>	<b>174</b>	<b>207</b>
<b>East Coast</b>	<b>31</b>	<b>35</b>	<b>48</b>	<b>48</b>	<b>63</b>	<b>44</b>	<b>101</b>	<b>78</b>	<b>164</b>	<b>56</b>	<b>358</b>
<b>North Central</b>	<b>171</b>	<b>162</b>	<b>187</b>	<b>227</b>	<b>266</b>	<b>321</b>	<b>319</b>	<b>318</b>	<b>268</b>	<b>284</b>	<b>500</b>
<b>North Western</b>	<b>56</b>	<b>53</b>	<b>51</b>	<b>63</b>	<b>62</b>	<b>70</b>	<b>87</b>	<b>87</b>	<b>163</b>	<b>155</b>	<b>464</b>
<b>South East Central</b>	<b>64</b>	<b>58</b>	<b>61</b>	<b>66</b>	<b>60</b>	<b>56</b>	<b>53</b>	<b>45</b>	<b>110</b>	<b>97</b>	<b>158</b>
<b>South Western</b>	<b>40</b>	<b>42</b>	<b>30</b>	<b>39</b>	<b>28</b>	<b>28</b>	<b>58</b>	<b>45</b>	<b>40</b>	<b>48</b>	<b>83</b>
<b>West Central</b>	<b>76</b>	<b>70</b>	<b>58</b>	<b>68</b>	<b>72</b>	<b>79</b>	<b>107</b>	<b>82</b>	<b>145</b>	<b>129</b>	<b>207</b>
<b>Metro</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>8</b>
<b>Total</b>	<b>1505</b>	<b>1538</b>	<b>1401</b>	<b>1623</b>	<b>1858</b>	<b>1909</b>	<b>2332</b>	<b>2145</b>	<b>2428</b>	<b>2456</b>	<b>4198</b>

**(d) As per Indian Railways E- Procurement System (IREPS), 339 tenders for Signalling works have been invited during 2023-24 on Indian Railway network.**