

GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 752**  
ANSWERED ON 20.07.2017

**SOCIO-ENVIRONMENTAL CONCERNS OF INTER-LINKING OF RIVERS**

752. SHRI J.J.T. NATTERJEE

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

- (a) whether the Government has considered any socio-environmental concerns related to inter-linking of rivers project, if so, the details thereof;
- (b) whether a very detailed hydrological, geological, meteorological and environmental analysis of the project has been completed or is under progress, if so, the details thereof;
- (c) the details of the river links and storage structures likely to be covered / considered to transfer surplus of water through a canal network after completion of the said project; and
- (d) the detailed list of the proposed links, State-wise?

**ANSWER**

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION  
(DR. SANJEEV KUMAR BALYAN)

(a) At the time of preparation of Detailed Project Report (DPR) of the individual river link projects, detailed Environmental Impact Assessment (EIA) studies and Socio-economic studies as per Terms of Reference approved by Environmental Appraisal Committee (EAC) of Ministry of Environment and Forests & Climate Change (MoEF&CC) are carried out. EIA study includes impacts on land environment, water resources and its quality, terrestrial ecology (flora, fauna, vegetation cover, wildlife), aquatic ecology (riverine ecology, fisheries), pollution due to noise during construction phase, impact on air quality, impact due to command area development, impacts on local services (like water supply, education, health care, community forests, impacts on business opportunities). All environmental impacts and issues arising out of the EIA studies are duly addressed in Environmental Management Plan which forms a part of DPR. The Socio-economic studies include detailed Resettlement & Rehabilitation (R&R) Plan for project affected persons including Tribal population.

(b) At the time of preparation of DPR for link projects, detailed hydrological, geological, meteorological and environmental analysis of the projects are carried out. So far, DPR of Ken-Betwa link project, Damanganga-Pinjal link project and Par-Tapi-Narmada link project have been completed for which comprehensive socio-economic, environmental impact assessment studies were carried out as per the terms of reference of MoEF&CC.

(c) & (d) Under the National Perspective Plan (NPP) for water resources development through inter basin transfer of water prepared by this Ministry, National Water Development Agency (NWDA) has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). After survey and investigations, FRs of 14 links under Peninsular Component and 2 links in the Himalayan component have been prepared. Present status, States concerned and States benefited of Inter Basin Water Transfer Links are given in **Annexure-I**. The detailed list of storage structures likely to be covered/considered for transfer of surplus of water through canal/tunnel network are given in **Annexure-II**.

Annexure referred to in reply to part (c) & (d) of Unstarred Question No. 752 to be answered in Lok Sabha on 20.07.2017 regarding “**Socio-environmental concerns of Inter-linking of Rivers**”.

**Present status of Inter Basin Water Transfer Links, the States involved, name of rivers and status of Feasibility Reports/Detailed Project Report**

| Sl. No                      | Name   | Rivers                        | States concerned   | Status                                |
|-----------------------------|--|-------------------------------|--|---------------------------------------|
| <b>Peninsular Component</b> |  |                               |  |                                       |
| 1                           | Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link   | Mahanadi & Godavari           | Odisha, Maharashtra, Andhra Pradesh, Karnataka, & Chattisgarh                                      | FR Completed                          |
| 2                           | Godavari (Inchampalli) - Krishna (Pulichintala) link   | Godavari & Krishna            | -do-   | FR Completed                          |
| 3                           | Godavari (Inchampalli) - Krishna (Nagarjunasagar) link | Godavari & Krishna            | Odisha, Maharashtra, Madhya Pradesh, Andhra Pradesh, Karnataka & Chattisgarh,                      | FR Completed                          |
| 4                           | Godavari (Polavaram) - Krishna (Vijayawada) link       | Godavari & Krishna            | Odisha, Maharashtra, Andhra Pradesh, Karnataka, & Chattisgarh                                      | FR Completed                          |
| 5                           | Krishna (Almatti) – Pennar link                        | Krishna & Pennar              | -do-   | FR Completed                          |
| 6                           | Krishna (Srisaillam) – Pennar link                     | Krishna & Pennar              | -do-   | FR Completed                          |
| 7                           | Krishna (Nagarjunasagar) - Pennar (Somasila ) link     | Krishna & Pennar              | Maharashtra, Andhra Pradesh & Karnataka,   | FR Completed                          |
| 8                           | Pennar (Somasila) - Cauvery (Grand Anicut) link        | Pennar & Cauvery              | Andhra Pradesh, Karnataka, Tamil Nadu, Kerala & Puducherry   | FR Completed                          |
| 9                           | Cauvery (Kattalai) - Vaigai -Gundar link               | Cauvery, Vaigai & Gundar      | Karnataka, Tamil Nadu, Kerala & Puducherry   | FR Completed                          |
| 10                          | Ken-Betwa link   | Ken & Betwa                   | Uttar Pradesh & Madhya Pradesh   | FR & DPR (Ph-I&II) Completed          |
| 11                          | Parbati -Kalisindh- Chambal link                       | Parbati, Kalisindh & Chambal  | Madhya Pradesh, Rajasthan & Uttar Pradesh (UP requested to be consulted during consensus building) | FR Completed                          |
| 12                          | Par-Tapi-Narmada link                                  | Par, Tapi & Narmada           | Maharashtra & Gujarat  | FR & DPR Completed                    |
| 13                          | Damanganga - Pinjal link                               | Damanganga & Pinjal           | Maharashtra & Gujarat  | FR & DPR Completed.                   |
| 14                          | Bedti - Varda link                                     | Bedti & Varda                 | Maharashtra, Andhra Pradesh & Karnataka  | PFR Completed                         |
| 15                          | Netravati – Hemavati link                              | Netravati & Hemavati          | Karnataka, Tamil Nadu & Kerala   | PFR Completed                         |
| 16                          | Pamba - Achankovil - Vaippar link                      | Pamba, Achankovil & Vaippar   | Kerala & Tamil Nadu,   | FR Completed                          |
| <b>Himalayan Component</b>  |  |                               |  |                                       |
| 1.                          | Manas-Sankosh-Tista-Ganga (M-S-T-G) link               | Manas-Sankosh-Tista-Ganga     | Assam, West Bengal, Bihar& Bhutan  | PFR completed                         |
| 2.                          | Kosi-Ghaghra link                                      | Kosi & Ghaghra                | Bihar , Uttar Pradesh & Nepal  | PFR completed                         |
| 3.                          | Gandak-Ganga link                                      | Gandak & Ganga                | -do-   | Draft FR completed (Indian portion)   |
| 4.                          | Ghaghra-Yamuna link                                    | Ghaghra & Yamuna              | -do-   | FR completed (Indian portion)         |
| 5.                          | Sarda-Yamuna link                                      | Sarda & Yamuna                | Bihar, Uttar Pradesh, Haryana, Rajasthan, Uttarakhand & Nepal                                      | FR completed (Indian portion)         |
| 6.                          | Yamuna-Rajasthan link                                  | Yamuna & Sukri                | Uttar Pradesh, Gujarat, Haryana & Rajasthan  | Draft FR completed                    |
| 7.                          | Rajasthan-Sabarmati link                               | Sabarmati                     | -do-   | Draft FR completed                    |
| 8.                          | Chunar-Sone Barrage link                               | Ganga & Sone                  | Bihar & Uttar Pradesh  | Draft FR completed                    |
| 9.                          | Sone Dam – Southern Tributaries of Ganga link          | Sone & Badua                  | Bihar & Jharkhand  | PFR completed.                        |
| 10.                         | Ganga(Farakka)-Damodar-Subernarekha link               | Ganga, Damodar & Subernarekha | West Bengal, Odisha & Jharkhand  | Draft FR completed                    |
| 11.                         | Subernarekha-Mahanadi link                             | Subernarekha & Mahanadi       | West Bengal & Odisha   | Draft FR Completed                    |
| 12.                         | Kosi-Mechi link  | Kosi & Mechi                  | Bihar , West Bengal & Nepal  | PFR completed Entirely lies in Nepal  |
| 13.                         | Ganga (Farakka)-Sunderbans link                        | Ganga & Ichhamati             | West Bengal  | Draft FR completed                    |
| 14.                         | Jogighopa-Tista-Farakka link (Alternative to M-S-T-G)  | Manas, Tista & Ganga          | -do-   | (Alternative to M-S-T-G Link) dropped |

- PFR- Pre Feasibility Report
- FR- Feasibility Report
- DPR- Detailed Project Report

Annexure referred to in reply to part (c) & (d) of Unstarred Question No. 752 to be answered in Lok Sabha on 20.07.2017 regarding “Socio-environmental concerns of Inter-linking of Rivers”.

**LIST OF DAMS PROPOSED/EXISTING IN INTER BASIN WATER TRANSFER PROPOSALS**

| Sl.No.    | Name of the Link                              | Name of the Dam  | Location of dam  |
|-----------|---|--|--|
| <b>I</b>  | <b>HIMALAYAN COMPONENT</b>                    |  |  |
| 1         | Kosi-Mechi                                    | 1.Kosi   | Nepal  |
| 2         | Kosi-Ghagra                                   | -  | -  |
| 3         | Gandak-Ganga                                  | 1.Gandak<br>2. Seti<br>3.Marshyandi<br>4.Kali Gandaki<br>5.Burhi Gandaki                     | Nepal<br>-do-<br>-do-<br>-do-<br>-do-                          |
| 4         | Ghagra-Yamuna                                 | 1.Chisapani  | -do-   |
| 5         | Sarda-Yamuna                                  | 1.Poornagiri   | -do-   |
| 6         | Yamuna-Rajasthan                              | -  | -  |
| 7         | Rajasthan-Sabarmati                           | -  | -  |
| 8         | Chunar-Sone Barrage                           | -  | -  |
| 9         | Sone Dam-Southern Tributaries of Ganga        | 1.Kadwan   | Bihar  |
| 10        | Brahmaputra-Ganga (Manas-Sankosh-Tista-Ganga) | 1.Manas<br>2. Sankosh  | Bhutan<br>-do-   |
| 11        | Brahmaputra-Ganga (Jogighopa-Tista-Farakka)   | -  | -  |
| 12        | Farakka-Sunderbans                            | -  | -  |
| 13        | Ganga(Farakka)-Damodar-Subernarekha           | -  | -  |
| 14        | Subernarekha-Mahanadi                         | -  | -  |
|           | <b>Sub Total(I):</b>                          | <b>11</b>  |  |
| <b>II</b> | <b>PENINSULAR COMPONENT</b>                   |  |  |
| 1         | Mahanadi(Manibhadra)-Godavari(Dowlaiswaram)   | 1.Manibhadra   | Orissa   |
| 2         | Godavari(Polavaram)-Krishna(vijayawada)       | 1.Polavaram  | Andhra Pradesh   |
| 3         | Godavari(Inchampalli)-Krishna(Nagarjunasagar) | 1.Inchampalli  | -do-   |
| 4         | Godavari(Inchampalli)-Krishna(Pulichintala)   | 1.Pulichintala   | -do-   |
| 5         | Krishna(Nagarjunasagar)-Pennar(Somasila)      | 1.Nagarjunasagar*  | -do-   |
| 6         | Krishna(Srisailam)-Pennar                     | 1.Srisailam*   | -do-   |
| 7         | Krishna(Almatti)-Pennar                       | 1.Almatti*   | Karnataka  |
| 8         | Pennar(Somasila)-Cauvery(Grand Anicut)        | 1.Somasila*  | Andhra Pradesh   |
| 9         | Cauvery(Kattalai)-Vaigai-Gundar               | -  | -  |
| 10        | Parbati-Kalisindh-Chambal                     | 1.Patanpur<br>2.Mohanpura<br>3.Kundaliya   | Madhya Pradesh<br>-do-<br>-do-                                 |
| 11        | Damanganga-Pinjal                             | 1.Bhugad<br>2.Khargihill<br>3. Pinjal  | Gujarat<br>Maharashtra<br>-do-                                 |
| 12        | Par-Tapi-Narmada                              | 1.Jheri<br>2.Mohankavchali<br>3.Paikhed<br>4.Chasmandva<br>5.Chikkar<br>6.Dabdar<br>7.Kelwan | Maharashtra<br>Gujarat<br>-do-<br>-do-<br>-do-<br>-do-<br>-do- |
| 13        | Ken-Betwa                                     | 1.Daudhan  | Madhya Pradesh   |
| 14        | Pamba-Achankovil-Vaippar                      | 1.Punamedu<br>2.Achankovil Kalar<br>3.Achankovil   | Kerala<br>-do-<br>-do-   |
| 15        | Bedti-Varda                                   | 1.Pattanadahalla<br>2.Shalmalahalla  | Karnataka<br>-do-  |
| 16        | Netravati-Hemavati                            | 1.Yattin hole<br>2.Keri hole<br>3.Hongadhallad   | -do-<br>-do-<br>-do-   |
|           | <b>Sub Total(II):</b>                         | <b>30</b>  |  |
|           | <b>Grand Total(I+II):</b>                     | <b>41</b>  |  |

\* Existing Dams