

GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 2229
ANSWERED ON 08.03.2018

INTER-LINKING OF RIVERS

2229. DR. RAVINDRA BABU

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

- (a) the present status of inter-linking of rivers project;
- (b) the rivers to be connected in the first phase and cost to be incurred thereon;
- (c) the total number of rivers to be inter-linked in future; and
- (d) whether interfering in the natural course of rivers will lead to ecological imbalance in future and if so, the details thereof and the corrective action to be taken thereon?

ANSWER

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND
GANGA REJUVENATION & PARLIAMENTARY AFFAIRS

(SHRI ARJUN RAM MEGHWAL)

(a) to (c): The National Perspective Plan (NPP) was prepared by the then Ministry of Irrigation in August 1980 for transferring water from water surplus basins to water-deficit basins. Under the NPP, the National Water Development Agency (NWDA) identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). The Pre-Feasibility Reports (PFRs) of all 30 links have been prepared and circulated to the concerned State Governments. After survey and investigations, FRs of 14 links under Peninsular Component and FRs of 2 links and draft FRs of 7 links (Indian portion) under Himalayan Component have been completed. Present status, States concerned, and benefits are given in **Annexure**. The Inter-Linking of River (ILR) programme has been taken up on high priority.

Four priority links under Peninsular Rivers Component have been identified for preparation of Detailed Project Report (DPR) viz; Ken-Betwa link project (KBLP) Phase –I & II, Damanganga-Pinjal link project, Par-Tapi-Narmada link project and Mahanadi-Godavari link project. The preparation of DPR of a project is taken up after consent of concerned State Governments. DPRs of KBLP Phase-I & Phase-II, Damanganga-Pinjal link project and Par-Tapi-Narmada link project have been completed. The techno-economic clearance and various statutory clearances of the KBLP Phase-I have been accorded. Based on the request of Government of M.P., the DPRs of projects included under KBLP Phase-II viz., Lower Orr dam, Bina complex projects and Kotha barrage have been completed by NWDA/ Government of M.P. and submitted for techno-economical appraisal in Central Water Commission (CWC).

The techno-economic clearance of the Damanganga-Pinjal link project has been accorded subject to statutory clearances. The DPR of Par-Tapi-Narmada link project has been submitted for technical appraisal in CWC. The DPR of the Mahanadi – Godavari link could not be taken up as the Government of Odisha was not agreeable for Mahanadi – Godavari link, a mother link of 9 link system viz., Mahanadi – Godavari – Krishna – Pennar – Palar – Cauvery – Vaigai – Gundar linkage due to large submergence involved in Manibhadra Dam. Based on the suggestions of Govt. of Odisha, NWDA has prepared a preliminary revised proposal of Mahanadi- Godavari Link Project with reduced submergence and submitted to the Govt. of Odisha.

The estimated cost of these four projects for which DPRs have been completed is furnished below:

| Sl. No | Name of the Project | | Estimated Cost (Rs. in crore) at 2015-16 price level |
|---------------|-----------------------------|------|---|
| 1. | Ken-Betwa Project(Phase-I) | Link | 18057 |
| 2. | Ken-Betwa Project(Phase-II) | Link | 8594 |
| 3. | Damanganga-Pinjal Project | Link | 3008 |
| 4. | Par-Tapi-Narmada Project | Link | 10211 |

(d) At the time of preparation of DPR of the individual river link projects, detailed Environmental Impact Assessment (EIA) studies as per Terms of Reference approved by Environmental Appraisal Committee (EAC) of Ministry of Environment and Forests & Climate Change 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 impacts of individual ILR project on the human lives, environment, landmass, etc., are suitably addressed in the Environment Impact and Socio-economic impact Assessment studies which is part of the preparation of DPR.

ANNEXURE

Annexure referred to in reply to parts (a) to (c) of Unstarred Q.No. 2229 to be answered in Lok Sabha on 08.03.2018 regarding “Inter-Linking of Rivers”.

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

| Sl. No | Name | States concerned | States benefited | Annual Irrigation (Lakh ha) | Domestic and Industrial supply (MCM) | Hydro power (MW) | Present status |
|-----------------------------|--|---|------------------------------|-----------------------------|--------------------------------------|------------------|----------------|
| Peninsular Component | | | | | | | |
| 1 | Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link | Odisha, Maharashtra, AP, Karnataka, Chattisgarh & Telangana | Andhra Pradesh & Odisha | 0.91+3.52 = 4.43 | 802 | 445 | FR completed |
| 2 | Godavari (Inchampalli) - Krishna (Pulichintala) link | -do- | Telangana and Andhra Pradesh | 1.09+5.04= 6.13 | 413 | -- | FR completed |
| 3 | Godavari (Inchampalli) - Krishna (Nagarjunasagar) link | Odisha, Maharashtra, Madhya Pradesh, AP, Karnataka, Chattisgarh & Telangana | Telangana | 2.87 | 237 | 975 | FR completed |
| 4 | Godavari (Polavaram) - Krishna (Vijayawada) link | Odisha, Maharashtra, AP, Karnataka, Chattisgarh & Telangana | Andhra Pradesh | 5.82 | 162 | -- | FR completed |
| 5 | Krishna (Almatti) – Pennar link | Maharashtra, Karnataka, Telangana & AP | Andhra Pradesh & Karnataka | 1.90+0.68 = 2.58 | 56 | -- | FR completed |
| 6 | Krishna (Srisailem) – Pennar link | -do- | -- | -- | -- | 17 | FR completed |
| 7 | Krishna (Nagarjunasagar) - Pennar (Somasila) link | Maharashtra, AP & Karnataka | Andhra Pradesh | 5.81 | 124 | 90 | FR completed |
| 8 | Pennar (Somasila) - Cauvery (Grand Anicut) link | AP, Karnataka, Tamil Nadu, Kerala & Puducherry | AP, Tamil Nadu & Puducherry | 0.49+4.36 + 0.06 = 4.91 | 1105 | -- | FR completed |

| Sl. No | Name | States concerned | States benefited | Annual Irrigation (Lakh ha) | Domestic and Industrial supply (MCM) | Hydro power (MW) | Present status |
|--------|--|---|---|--|---|------------------|----------------------------|
| 9 | Cauvery (Kattalai) - Vaigai -Gundar link | Karnataka, Tamil Nadu, Kerala & Puducherry | Tamil Nadu | 3.38 | 185 | -- | FR completed |
| 10 | a) Ken-Betwa Link Phase-I | Uttar Pradesh & Madhya Pradesh | Uttar Pradesh & Madhya Pradesh | 2.66 + 3.69 =6.35 | 49 | 78 | FR&DPR (Ph-I&II) completed |
| | b) Ken-Betwa link Phase-II | - do- | Madhya Pradesh | 0.99 | 6 | - | |
| 11 | Parbati - Kalisindh- Chambal link | Madhya Pradesh, Rajasthan & Uttar Pradesh (UP requested to be consulted during consensus building) | Madhya Pradesh& Rajasthan | *Alt.I: 2.05+ 0.25 =2.30 (Alt.II: 1.77+ 0.43 = 2.20) | 13.2 | -- | FR completed |
| 12 | Par-Tapi- Narmada link | Maharashtra & Gujarat | Gujarat& Maharashtra | 2.32 | 76 | 22 | FR&DPR completed |
| 13 | Damanganga- Pinjal link (As per DPR) | -do- | Maharashtra (only water supply to Mumbai) | -- | 895 (including 316 MCM from Pinjal dam proposed by GoM) | -- | FR&DPR completed |
| 14 | Bedti- Varda link | Maharashtra, Andhra Pradesh & Karnataka | Karnataka | 0.60 | -- | 4 | PFR completed |
| 15 | Netravati- Hemavati link | Karnataka, Tamil Nadu & Kerala | Karnataka | 0.34 | -- | -- | PFR completed. |
| 16 | Pamba- Achankovil- Vaippar link | Kerala & Tamil Nadu, | Kerala& Tamil Nadu | 0.91 | -- | 508 | FR completed |

| Himalayan Component | | | | | | | |
|----------------------------|---|--|---------------------------------|------------------------------------|---|-------------------------|--|
| Sl. No | Name | States concerned | States benefited | Annual Irrigation (Lakh ha) | Domestic and Industrial supply (MCM) | Hydro power (MW) | Present status |
| 1. | Manas-Sankosh-Tista-Ganga (M-S-T-G) link | Assam, West Bengal, Bihar & Bhutan | Assam, West Bengal & Bihar | 2.08 + 1.82 + 2.64 = 6.54 | -- | 5287 | PFR completed |
| 2. | Kosi-Ghaghra link | Bihar, Uttar Pradesh & Nepal | Bihar & Uttar Pradesh | 8.17 + 0.67 + 1.74 (Nepal) = 10.58 | 48 | -- | PFR completed |
| 3. | Gandak-Ganga link | -do- | Uttar Pradesh | 37.99 + 2.41 (Nepal) = 40.40 | 700 | -- | Draft FR completed (Indian portion) |
| 4. | Ghaghra-Yamuna link | -do- | Uttar Pradesh | 25.30 + 1.35 (Nepal) = 26.65 | 1391 | 10884 | FR completed (Indian portion) |
| 5. | Sarda-Yamuna link | Bihar, UP, Haryana, Rajasthan, Uttarakhand & Nepal | Uttar Pradesh & Uttarakhand | 3.45 + 0.30 = 3.75 | 6250 | 3600 | FR completed (Indian portion) |
| 6. | Yamuna-Rajasthan link | UP, Gujarat, Haryana & Rajasthan | Haryana & Rajasthan | 0.435 + 2.442 = 2.877 | 57 | -- | Draft FR completed |
| 7. | Rajasthan-Sabarmati link | -do- | Rajasthan & Gujarat | 5.35 + 2.04 = 7.39 | 282 | -- | Draft FR completed |
| 8. | Chunar-Sone Barrage link | Bihar & UP | Bihar & Uttar Pradesh | 0.30 + 0.37 = 0.67 | -- | -- | Draft FR completed |
| 9. | Sone Dam – Southern Tributaries of Ganga link | Bihar & Jharkhand | Bihar & Jharkhand | 2.99 + 0.08 = 3.07 | 360 | 95 | PFR completed |
| 10. | Ganga(Farakka)-Damodar-Subernarekha link | West Bengal, Odisha & Jharkhand | West Bengal, Odisha & Jharkhand | 7.63 + 0.30 + 0.55 = 8.47 | 484 | - | Draft FR completed |
| 11. | Subernarekha-Mahanadi link | West Bengal & Odisha | West Bengal & Odisha | 0.18 + 0.365 = 0.545 | -- | 9 | Draft FR completed |
| 12. | Kosi-Mechi link | Bihar, West Bengal & Nepal | Bihar | 2.99 + 1.75 (Nepal) = 4.74 | 24 | 3180 | PFR completed (Entirely lies in Nepal) |
| 13. | Farakka-Sunderbans link | West Bengal | West Bengal | 1.50 | 184 | -- | Draft FR completed |
| 14. | Jogighopa-Tista-Farakka link (Alternative to M-S-T-G) | -do- | Assam, West Bengal & Bihar | ---- | 216 | 1115 | Alternate to M-S-T-G link dropped. |

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