



GOVERNMENT OF ODISHA

DEPARTMENT OF WATER RESOURCES

SUBARNAREKHA IRRIGATION PROJECT

ANNUAL REPORT

FOR THE YEAR 2016-17

OF

SUBARNAREKHA IRRIGATION DIVISION NO- I

JHARPOKHARIA

Jurisdiction of this Division:-The jurisdiction of this division starts from the head reach of Subarnarekha Main Canal i.e (56.04km of GRBC/00K of SMC) upto RD 37km. All the minors and Sub-minors off-taking between 00 km and RD 37km are under the control of this division.

Besides above this division is executing the work of New Haladia Dam and its ancillary works at the Downstream side of existing earth dam built up by the Mayurbhanj Raja more than 100 years ago, situated at the Rt side of Subarnarekha Main Canal and the reservoir is being fed by Subarnarekha Main Canal at RD 39210m by a feeder structure.

The defunct Haladia dam Division has also been merged with this division and all the correspondences relating to Defunct Haladia Dam Division are being maintained by this division.

The New haladia Dam Division has been created and restructuring of Engineering Cadre has been sanctioned vide order no 9391-98/ dated 23.07.2015 of the Chief Engineer & Basin Manager, S & B Basin, Laxmiposi as per approval communicated by Govt in DOWR .

Sub Division:- There are three Sub-divisions under the control of this division and for smooth management of project work following arrangements has been made to look after the construction and maintenance of canal works, executed by different agencies.

Subarnarekha Main Canal:-

- 1) Subarnarekha Irrigation Sub Division-I, Jharpokharia:- RD 00m to RD14000m
- 2) Subarnarekha Irrigation Sub Division-III, Jharpokharia:- RD 14000m to RD23940m
- 3) Subarnarekha Irrigation Sub Division-II, Jharpokharia:-RD23940m to RD37000m.

Minors and Sub Minors:-

1) Subarnarekha Irrigation Sub Division-I, Jharpokharia:-

- a) Uchagaon Sub Minor offtaking at RD 900m of SMC.
- b) Nutandihi Sub Minor offtaking at RD 900m of SMC.
- c) Kapadiha Minor offtaking RD 2050m of SMC
- d) Neda Minor offtaking at RD 3650m of SMC.
- e) Saraskana Sub Minor offtaking at RD 6250m of SMC.
- f) Chatra Minor and its Sub Minor offtaking at RD 14136m of SMC.

- g) *Kalabadia Sub Minor off-taking at RD 30855m of SMC.*
- h) *Kendudiha Sub Minor off-taking at RD 31050m of SMC.*
- i) *Kuliana Sub Minor, Pratap-pur Sub Minor and Bhagabanpur Sub Minor off-taking from Kuliana Minor (RD 33750m of SMC)*
- j) *Dahisahi Minor off-taking at RD 23045m of SMC.*

2) Subarnarekha Irrigation Sub Division-III, Jharpokharia:-

- a) *Kashipal Sub Minor off-taking at RD 6890m of SMC.*
- b) *Nabin Mundakata Sub Minor off-taking at RD 9900m of SMC*
- c) *Panasdiha Sub Minor off-taking at RD 11070m of SMC.*
- d) *Dakhinabil Sub Minor off-taking at RD 12250m of SMC.*
- e) *Dumuria Minor off-taking at RD 15m of Manjori Disty(RD16750m of SMC)*
- f) *Jambani Sub Mminor off-taking at RD 19045m of SMC.*
- g) *Pathuri Sub Minor off-taking at RD 19770m of SMC*
- h) *Jagannathkhunta Minor off-taking at RD 30276m of SMC.*
- i) *Nabedi Sub Minor and Tilagadia Sub Minor off-taking from Balarampur Minor of SMC.*
- j) *Balarampur Minor off-taking at RD36810m of SMC*

3. Subarnarekha Irrigation Sub Division-II, Jharpokharia:-

- a) *Manjori Minor off-taking at RD 10m of Manjori disty (RD 16750m of SMC) and Bansda S/Mr, Sirsa S/Mr and Nuadihi S/Mr.*
- b) *Jalda Sub Minor off-taking at RD20350m of SMC.*
- c) *Pathuri Sankucha Minor off-taking at RD 27480m of SMC.*
- d) *Budamara Minor off-taking at RD 29070m of SMC.*
- e) *Kuliana Minor off-taking at RD 33750m of SMC.*
- f) *Budamara Minor off-taking at RD 29070m of SMC.*
- g) *Balimunduli Sub Minor off-taking at RD34290m of SMC*
- h) *Madanasahi Sub Minor off-taking at RD35310m of SMC.*

Major works:-

Dam:-Construction of Haladia Earth Dam excluding Spillway and Head Regulator Gap portion is under progress. The length of the dam is 3.55Km and earth dam section for a length of 750m has been completed with U/S Rip rap, D/S Rock Toe and Vertical Chimney along with horizontal filter. The down stream turfing work has been completed for a length of 750m. The construction work in other reaches of the dam is in progress. 85% of earth compaction work has been completed till end of March 2017 and the total dam construction work has been targeted to be completed by end of December 2017.

Spillway:-After completion of exploration of drill holes in the periphery location of Spillway i.e between RD 2600m and RD 2750m and geological logging made by the Engineering Geologist of GSI, Odisha Projects, Bhubaneswar, the design of Spillway of the Haladia Dam has been finalized and received during January 2016. The work has been awarded to M/s OCC Ltd as per instruction and approval of Govt in DOWR vide MOU No 01 of 2016-17 dated 22.06.16 amounting to Rs 149.51 Crores and targeted period of completion is 36 calendar months. (02.06.19). The pocket filling work has been completed by the end of February 2017. After submission of data of pocket filling and foundation grade Rock Level the Construction drawing of Right side U/S side wing wall has been received from the CE (Designs), Water Resources, Odisha, BBSR during April 2017 and the construction work is under progress. Report of Sectional Model Study of the Spillway has been received from Hydraulic Research division, Burla during April 2017. Preparation of Composite Model Study Report is under progress.

Head Regulators:- Two nos of Head Regulators are offtaking from the Earth dam for providing irrigation through two nos of distributaries to the command area of the reservoir. The hydraulic particulars for design of the head regulators along with necessary compliances have already been submitted to the Chief Engineer, Designs, Water Resources, Odisha, BBSR. As per instruction of the Superintendent Geologist and Chief Engineer, Designs two more drill holes along the axis of each head regulator are completed by Drilling and Grouting Division, Berhampur. After completion of drilling work necessary data along with logging of the Engineering Geologist will be submitted to the Chief Engineer, Designs for finalizing the design of the Head Regulators early.

It is learnt that the design and drawing of Left Head Regulator has been completed by the CE Designs and will be available by 15.04.17 for further action.

Peripheral Development Works:- There are 16 nos of villages which are being affected by Haladia reservoir. Though the land acquisition work upto the periphery of the reservoir has been completed earlier the rehabilitation and resettlement work has been delayed due to change in R & R policy. However the same has been mostly covered except few cases. Sincere steps have been taken to complete the left out cases as early as possible. For peripheral development works a sum of Rs 862.90 lakhs was sanctioned for 62 nos of projects during the year 2014. Expenditure to the tune of Rs625.00 lakhs has so far been made and 58 nos of projects completed. The other 3 works are under progress and will be completed by September 2017.

Main Canal & Distribution System:-

Excavation and CC lining of Subarnarekha Main Canal has been completed from RD 00Km to RD 37Km except CC lining from RD 7950m to RD 8920m by the end of June 2013.

Continuous failure of canal slope has been observed due to poor characteristics of soil and sub surface seepage in the canal from RD 7950m to RD 8920m. The hydraulic particulars along with all the test results carried out by CSMRS, New Delhi was submitted to the Chief Engineer, DR&QC, BBSR and subsequently referred to CWC as per recommendation TAC for Irrigation Projects for design of required section of concrete lining. The CWC, New Delhi has approved the design and drawing of the concrete lining to be taken up between RD 7950m and RD 8920m during August 2015. After receipt of drawing the work has been awarded to M/s OCC Ltd vide MOU No 02/2016-17 amounting to Rs 67.28 Crores as per instruction of Govt in DOWR for executing the work. After closure of Khariff Water supply through SMC, work has been resumed and at present stage the excavation work has already been completed. Construction activities for formation of bed and banking section as per approved drawing is under progress.

The Hon'ble Chief Minister, Odisha inaugurated the trial run of irrigation water through the Subarnarekha Main Canal on dated 17.07.2013 during Khariff season 2013. Since then trial irrigation is being supplied to the command area of ayacut of SMC and two command area reservoirs namely Haladia and Jambhira reservoir. During Khariff season 2016 this division could be able to provide irrigation water for 6144 Hect cultivable lands out of 6987Ha of designed CCA. Further Khariff water has been fed to Haladia reservoir and Jambhira reservoir through the Subarnarekha Main Canal due to scanty rain fall. The details of irrigation provided through the minors and sub-minors is given below.

There are 6nos CR Gates, 3nos of CR cum Escape Gates and 1 no of Escape Gate installed between RD 00Km and 37Km of Subarnarekha Main canal for providing irrigation water smoothly. All the Gate works have been completed and became operational. Diesel Generating sets are installed in 7nos of CR gates and CR cum Escape Gates. Arrangements for Watch and ward of all the gates have also been made as per availability of staff of this division. For smooth operation, the Asst executive Engineers and Asst Engineers/Junior Engineers and other field staff of this division have been attached to different CR and Escape Gates.

Communication:- *For providing general communication to the local people and inspection of canal, one side canal bank has been developed by WBM road followed by black topped road from RD 00Km to RD37Km except slope failure and heavy cutting reaches. Four to five buses are plying in most of the reaches of canal bank for which black topping of the service was essentially required.*

**DETAILS OF KHARIFF IRRIGATION PROVIDED IN SUBARNAREKHA IRRIGATION DIVISION NO-I,
JHARPOKHARIA BETWEEN RD 00KM AND RD 37KM during 2016**

| Sl no | Physical Features | Total length (In KM) | Irrigation Status | | |
|-------|------------------------------|-------------------------|-----------------------------|-------------------------------|-------------|
| | | | Design potential in Hect | Annual Target and Achievement | |
| | | | | Target for Khariff 2016 | Achievement |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | Minor & Sub minor | | | | |
| 1 | Uchagaon Sub Minor | 0.10 | 54.080 | 54.080 | 54.080 |
| 2 | Nutandihi Sub Minor | 0.119 | 90.616 | 90.616 | 90.616 |
| 3 | Kapadiha Minor | 0.626 | | 0.000 | 0.000 |
| a | Mundabani S/M | 1.23 | 28.049 | 28.049 | 28.049 |
| b | Kapadiha S/Mr | 2.025 | 90.279 | 90.279 | 90.279 |
| c | Janakipur S/Mr | 1.79 | 24.265 | 24.265 | 24.265 |
| 4 | Neda Minor | 1.472 | | 0.000 | 0.000 |
| a | Banagaon S/Mr | 1.18 | 209.69 | 209.690 | 209.690 |
| b | Kuldiha S/Mr | 1.031 | 196.26 | 196.260 | 196.260 |
| 5 | Saraskana Sub Minor | 2.55 | 152.16 | 152.155 | 152.155 |
| 6 | Kashipal Sub Minor | 0.87 | 179.90 | 179.900 | 179.900 |
| 7 | Nabinmundakata Sub Minor | 1.08 | 158.79 | 158.790 | 158.790 |
| 8 | Panashadiha Sub Minor | 1.56 | 203.91 | 203.910 | 203.910 |
| 9 | Dakhinabadi Sub Minor | 0.17 | 52.30 | 52.300 | 52.300 |
| 10 | Chatra Minor | 3.785 | | 0.000 | 0.000 |
| a | BadaChatra S/M -I | 1.3 | 88.75 | 88.750 | 88.750 |
| b | BadaChatra S/M -II | 0.291 | 54.70 | 54.700 | 54.700 |
| c | BadaChatra S/M -III | 0.22 | 56.08 | 56.080 | 56.080 |
| d | Hinjili S/Mr | 0.772 | 53.59 | 53.590 | 53.590 |
| e | Mundali s/Mr | 0.724 | 117.83 | 117.830 | 117.830 |
| f | Nuagaon s/Mr | 1.01 | 104.50 | 104.500 | 104.500 |
| 11 | Manjari Minor | | | 0.000 | 0.000 |
| a | Manjari Minor | 1.35 | 84.09 | 84.090 | 84.090 |
| b | Bansda S/Mr | 0.73 | 44.18 | 44.180 | 44.180 |
| c | Salabani S/Mr | 0.93 | 57.31 | 57.310 | 57.310 |
| d | Sirsa S/Mr | 0.66 | 84.55 | 84.550 | 84.550 |
| e | Nuadihi s/Mr | 1.02 | 141.34 | 141.340 | 141.340 |
| 12 | Dumuria Minor | 4.7 | 214.51 | 214.510 | 214.510 |
| a | Gadadharpur S/Mr | 0.87 | 35.13 | 35.130 | 35.130 |
| b | Astia S/mr | 1.05 | 44.71 | 44.710 | 44.710 |
| c | Pandara s/Mr | 1.77 | 141.16 | 141.160 | 141.160 |
| d | Kuanrdihi s/Mr | 0.96 | 100.31 | 100.310 | 100.310 |
| e | Sijua S/Mr | 0.3 | 57.16 | 57.160 | 57.160 |

| Sl no | Physical Features | Total length (In KM) | Irrigation Status | | |
|-------|------------------------------|-------------------------|-----------------------------|----------------------------|----------------|
| | | | Design potential in Hect | Target for Khariff 2016 | Achievement |
| 13 | Jambani Sub Minor | 1.62 | 197.77 | 197.770 | 197.770 |
| 14 | Pathuri Sub Minor | 1.97 | 114.73 | 114.730 | 114.730 |
| 15 | Jalda Sub Minor | 0.825 | 107.87 | 107.870 | 107.870 |
| 16 | Dahisahi Minor | 6.13 | 665.45 | 665.450 | 665.450 |
| a | Bhursani S/Mr | 1.244 | | 0.000 | 0.000 |
| b | Purunapani S/Mr | 2.195 | | 0.000 | 0.000 |
| c | Nuagaon S/Mr | 2.039 | | 0.000 | 0.000 |
| 17 | Pathuri Sankucha Minor | | 564.19 | 564.190 | 564.190 |
| a | Pathuri Mr | 2.625 | | 0.000 | 0.000 |
| b | Sankucha Mr | 4.76 | | 0.000 | 0.000 |
| 18 | Budamara Minor | 1.65 | 194.69 | 194.690 | 194.690 |
| 19 | Jaganathakhunto Minor | 3.34 | 357.02 | 357.020 | 357.020 |
| 20 | Kalabadia Sub-Minor | 0.57 | 99.10 | 99.100 | 99.100 |
| 21 | Kendudiha (Sandim) Sub-Minor | 0.94 | 116.68 | 116.680 | 116.680 |
| 22 | Kuliana Minor | 5.13 | 843.94 | 0.000 | 0.000 |
| a | Pratappur S/Mr | 1.214 | | 0.000 | 0.000 |
| b | Kuliana S/Mr | 0.915 | | 0.000 | 0.000 |
| c | Bhagabanpur S/Mr | 1.3 | | 0.000 | 0.000 |
| 23 | Balimunduli Sub Minor | 1.635 | 182.49 | 182.490 | 182.490 |
| 24 | Madanasahi Sub- Minor | 0.39 | 37.94 | 37.940 | 37.940 |
| 25 | Balarampur Minor | 6.875 | 322.00 | 322.000 | 322.000 |
| a | Nabedi S/Mr | 3.04 | 154.97 | 154.970 | 154.970 |
| b | Tilagadia S/Mr | 1.44 | 108.56 | 108.560 | 108.560 |
| | T O T A L | 90.092 | 6987.59 | 6143.65 | 6143.65 |