

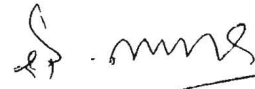
No. 16/27/2011-PA (N)/ 579-610
GOVERNMENT OF INDIA
CENTRAL WATER COMMISSION
PROJECT APPRAISAL ORGANIZATION
407, SEWA BHAWAN, R. K. PURAM, NEW DELHI-110 066

Date: 29.03.2011

Sub: 109th meeting of the Advisory Committee for consideration of techno-economic viability of Irrigation, Flood Control and Multipurpose Project proposals held on 14.03.2011.

Enclosed please find herewith a copy of the summary record of discussions of the above meeting held at New Delhi on 14th March, 2011 at Sewa Bhawan, R. K. Puram, New Delhi for information and necessary action.

Encl.: As above


(S.K. Srivastava) 29/03/11
Chief Engineer (PAO) cum
Member Secretary of the
Advisory Committee

To,

Members of Committee:

1. Chairman, CWC, Sewa Bhawan, R. K. Puram, New Delhi.
2. Secretary (Expenditure), Ministry of Finance, (1st Floor) North Block, New Delhi.
3. Secretary, Department of Power, S.S. Bhawan, IIInd Floor, New Delhi.
4. Secretary, Ministry of Environment & Forests, 4th Floor, Room No- 404/05 Paryavaran Bhawan, CGO Complex, New Delhi.
5. Secretary, Ministry of Tribal Affairs, Room No. 738, A-Wing, Shastri Bhawan, New Delhi.
6. Secretary, Department of Agriculture & Cooperation, Room No 126, Krishi Bhawan, New Delhi.
7. Director General, ICAR, Room No-108, Krishi Bhawan, New Delhi.
8. Chairman, CEA, Sewa Bhawan, R. K. Puram, New Delhi.
9. Chairman, Central Ground Water Board, Jam Nagar House, Man Singh Road, New Delhi.
10. Joint Adviser (WR), Planning Commission, Room No-255, Yojana Bhawan, New Delhi. (along with the copies of State Finance concurrence)
11. Principal Adviser (Power), Planning Commission, Room No-107 Yojana Bhawan, New Delhi.
12. Financial Adviser, Ministry of Water Resources, Room No-401 S.S. Bhawan, New Delhi. (along with the copies of State Finance concurrence)

Special Invitees:

13. Member (WP&P), CWC, New Delhi.
14. Member (D&R), CWC, New Delhi.

15. Member (RM), CWC, New Delhi.
 16. Chairman, GFCC, Sinchai Bhawan, Patna – 800 015, Bihar.
 17. Commissioner (Projects), Room No-411, S.S. Bhawan, MoWR, New Delhi.
 18. Commissioner (Ganga), Ministry of Water Resources, CGO Complex, New Delhi.
 19. Commissioner (Indus), Ministry of Water Resources, New Delhi.
 20. Chief Advisor (Cost), Department of Expenditure, Ministry of Finance, Lok Nayak Bhawan, New Delhi
 21. Secretary, Irrigation Department, Government of Maharashtra, Mantralaya, Mumbai-400 032
 22. Principal Secretary, WRD, Sachivalaya, Vallabh Bhawan, Arera Hills, Bhopal
 23. Secretary & Commissioner, Irrigation & Flood Control Department, Government of Arunachal Pradesh, Secretariat Complex, Itanagar-791 111.
 24. Secretary, Water Resources & Energy Department, Government of Jharkhand, Nepal House, Ranchi-834 001 (Jharkhand)
 25. Secretary, Irrigation & Public Health, Government of Himachal Pradesh, Sachivalaya, Simla-171 002.
 26. Secretary, Water Resources Department, Government of Bihar, Sinchai Bhawan, Patna-800 015.
 27. Chief Engineer (PMO), CWC, New Delhi.
 28. Chief Engineer (FMO), CWC, New Delhi.
 29. Chief Engineer, Indus Basin Organisation, CWC, Chandigarh
 30. Chief Engineer, Narmada Basin Organisation, CWC, Bhopal
 31. Chief Engineer, Mon-C Organisation, CWC, Nagpur
- Copy for information to:
32. Sr. PPS to Secretary, Ministry of Water Resources, Room No-407 New

SUMMARY RECORD OF DISCUSSIONS OF THE 109th MEETING OF THE ADVISORY COMMITTEE ON IRRIGATION, FLOOD CONTROL AND MULTI PURPOSE PROJECTS, HELD ON 14th MARCH, 2011 FOR CONSIDERATION OF TECHNO-ECONOMIC VIABILITY OF PROJECT PROPOSALS.

The 109th meeting of the Advisory Committee for consideration of Techno-Economic viability of Irrigation, Flood Control and Multi-purpose Project proposals was held on 14.03.2011 at 1500 hrs in the Conference Room of Central Water Commission, Sewa Bhawan, R.K. Puram, New Delhi under the Chairmanship of Shri D.V. Singh, Secretary (WR). List of participants is enclosed at **Annexure-I**.

At the outset, Chairman welcomed the Members of the Committee and other Officers present in the meeting. Thereafter, the Chairman requested the Member-Secretary to take up the agenda for discussion. Agenda items discussed and decisions taken are as under:

I) CONFIRMATION OF THE MINUTES OF THE 107th MEETING:

The Summary Record of Discussions of the 108th Advisory Committee meeting was circulated vide Letter No.16/27/2011-PA (N)/95-128, dated 21.01.2011. Since, no comments on the same have been received, the Committee confirmed the Summary Record of discussions of the 108th Advisory Committee meeting.

II) PROJECT PROPOSALS CONSIDERED BY THE ADVISORY COMMITTEE:

1.0 URMUDI IRRIGATION PROJECT (REVISED-MAJOR, Rs. 1417.75 Crore at 2009-10 PL), MAHARASHTRA:

CE, PAO, CWC introduced the revised project proposal in brief. It was stated that the proposal was placed before the Advisory Committee of MoWR in its 81st meeting held on 04.08.2003. The proposal was deferred by the Advisory Committee since the planning of the project was done on the basis of 50% dependable yield against the desired 75% dependable yield. Accordingly, CWC has suggested reviewing the planning aspects of the project. Based on the suggestion of CWC, the Project Authorities have submitted the modified water planning of the project on the basis of 75% dependable yield in February, 2010 for examination. The modified revised proposal has been examined in CWC and other Central Agencies and found techno-economically viable. The BC ratio of the project has been worked out to be 1.083.

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In reply to query about the establishment cost (i.e. 9.5% of I-Works), it was clarified that for concentrated works (i.e. dam, barrages etc) the establishment cost varies between 8-10% while for scattered works (i.e. canal etc.) this cost varies between 10-12%. Regarding the benefit accrued, it was clarified that the benefits computation has been done on the basis of certificate issued by State Agriculture Department. Regarding power requirement of about 13 million units for lift irrigation components, the project authorities informed the Committee that it would be made available by the State Govt. from the Maharashtra State Electricity Board. Apart from the above, the energy generated by the proposed 3 MW hydropower station in the form of incidental benefits under the project would also be utilized to meet the demand. The project authorities also ensured that they would be able complete the project within the given time frame (i.e., by 2014-15) and the cost. The Committee suggested the project authorities to adopt micro irrigation system for better irrigation efficiency and optimum utilization of water in the lift irrigation command. Project authorities were also advised to submit a note regarding variations in rates of yields in pre-project and post project scenario at the earliest for the consideration of the project. It was also suggested to ensure conjunctive use of surface and ground water in the command area so as to reduce the occurrence of water logging if any, in the post project implementation stage.

After brief discussions, the committee accepted the proposal with the condition that no further time and cost overrun would be allowed and submission of the note by the project authorities as stated above. The project authorities have submitted a note in this regard on 15.3.2011 which is enclosed at **Annexure-II**.

2.0 WAGHUR RIVER PROJECT (REVISED-MAJOR, Rs. 1183.55 Crore at 2008-09 PL), MAHARASHTRA:

CE, PAO briefly introduced the revised proposal of the project in which there is a further provision of additional annual irrigation to 11,791 ha has been made. He further stated that the revision in the cost was due to change in scope, price escalation, change in design and inadequate provision in the earlier estimate and the same has been examined and found techno-economically viable. The BC ratio of the project has been worked out to be 1.09.

In reply to query about use of modern irrigation technique, the project authorities explained that with the aim to provide irrigation facilities to DPAP area in the upstream,

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sprinkler & drip irrigation in the lift command has been proposed. Regarding status of land acquisition, the project authorities replied that acquisition of land has almost been completed except a small portion in distribution system which would be completed shortly. The project authorities also ensured the committee that they would be able to complete the project within the finalized cost and given time schedule i.e. by 2014-15. Project authorities were advised to submit a note regarding variations in rates of yields in pre-project and post project scenario at the earliest. It was also suggested to ensure conjunctive use of surface and ground water in the command area so as to reduce the occurrence of water logging in the post irrigation stage.

The committee accepted the proposal with the condition that no further time and cost overrun would be allowed and submission of the note by the project authorities as stated above. The project authorities have submitted a note in this regard on 15.3.2011 which is enclosed at **Annexure-II**.

3.0 TEMBHU LIFT IRRIGATION PROJECT (NEW-MAJOR, Rs. 3450.35 Crore at 2009-10 PL), MAHARASHTRA:

CE, PAO briefly introduced the project proposal. He mentioned that the project proposal has been examined in CWC and other Central Agencies and found technically economically viable. The BC ratio of the project has been worked out to be 1.22.

In reply to query about lower establishment cost, it was replied that that for concentrated works (i.e. dam, barrages etc) the establishment cost varies between 8-10% while for scattered works (i.e. canal etc.) this cost varies between 10-12%. The committee suggested the project authorities that since the command area of the project falls in DPAP area, micro irrigation system should be adopted in the proposed command for better irrigation efficiency and optimum utilization of irrigation water. Regarding energy requirement for the proposed lift scheme, the project authorities replied that necessary arrangement for power supply has already made from nearby Karad Thermal Power Station. Project authorities were advised to submit a note regarding variations in rates of yields in pre-project and post project scenario. The representative from CGWB mentioned that the Ground water availability in the command of the project is sufficient. As such it was to ensure conjunctive use of surface and ground water in the command area so as to reduce the occurrence of water logging if any, in the post project stage.

After brief discussions, the committee accepted the proposal with the condition that



no further time and cost overrun would be allowed and submission of the note by the project authorities as stated above. The project authorities have submitted a note in this regard on 15.3.2011 which is enclosed at **Annexure-II**.

4.0 BODWAD PARISAR SINCHAN YOJANA (NEW-MAJOR, Rs. 2178.67 Crore at 2009-10 PL), MAHARASHTRA:

CE, PAO briefly introduced the project proposal. He mentioned that the project proposal has been examined in CWC and Central Agencies and the project has been found techno-economically viable. The BC ratio of the project has been found to be 1.05.

In reply to query about the low land development cost, the project authorities explained that the irrigation water has been proposed to be supplied to the command through closed pipe network. As such, the proposed land development cost would be sufficient. The committee suggested that since the command area of the project falls in DPAP area, micro irrigation system should be adopted for better irrigation efficiency and optimum utilization of irrigation water. Regarding energy requirement and its arrangement for the proposed lift scheme, the project authorities replied that the energy requirement would be made available from the nearby Deep Thermal Power Station. Project authorities were advised to submit a note regarding variations in rates of yields in pre-project and post project scenario. It was also advised that project authorities should ensure conjunctive use of surface and ground water in the command since the Ground water availability in the command is in plenty and installation of piezo-meters at suitable locations for proper monitoring of Ground Water level in post-project scenario.

After brief discussion, the committee accepted the proposal with the condition that no further time and cost overrun would be allowed and submission of the note by the project authorities as stated above. The project authorities have submitted a note in this regard on 15.3.2011 which is enclosed at **Annexure-II**.

5.0 SUBERNREKHA MULTIPURPOSE PROJECT (REVISED-MAJOR, Rs. 6613.74 crore at 2010-PL), JHARKHAND

CE, PAO briefly introduced the revised proposal of the project and stated that the 2nd revised cost estimate (without change in scope) for Rs. 6613.74 Cr. (at 2010 price level) with B.C. Ratio of 1.76 was considered in 107th meeting of the Advisory Committee held on 27th October, 2010. In the meeting, it was decided that the project proposal is

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sound and fit to be accepted techno-economically once the Dalma wild life clearance is obtained.

National Board of Wild Life (NBWL) has recommended the proposal for diversion of 145.26 ha of Forest land falling under Dalma Wild Life Sanctuary in its 21st meeting held in New Delhi on 24.01.2011 which has been conveyed vide MoEF's letter dated 09.02.2011.

Planning Commission enquired about execution of the project at desired pace under prevailing law and order condition in the project area. The Project Authorities clarified that after implementation of the project, the law and order situation would certainly be improved in the project area. They further clarified that the State Government are in the process of strengthening the man power required for the implementation of the project.

After brief discussions, the committee accepted the proposal.

6.0 FLOOD CONTROL SCHEMES OF ARUNACHAL PRADESH:

- a) **ANTI EROSION & FLOOD PROTECTION WORK IN DIKONG BASIN IN PAPUMPARE DISTRICT, ARUNACHAL PRADESH** (ESTIMATED COST – Rs.23.68 Cr at 2010-PL with B.C. Ratio 1.56)
- b) **ANTI EROSION & FLOOD PROTECTION WORK IN BHARELI SUB BASIN IN EAST KAMENG DISTRICT, ARUNACHAL PRADESH** (ESTIMATED COST – Rs. 16.81 crore at 2010-PL with B.C. Ratio 1.35)
- c) **ANTI EROSION & FLOOD PROTECTION WORK IN SIYOM BASIN IN ARUNACHAL PRADESH** (ESTIMATED COST – Rs.29.64 Cr at 2010-PL with B.C. Ratio 1.54)

CE, PAO, CWC briefly introduced the above project proposals. The Member (RM), Central Water Commission further elaborated the features of the proposal. On a query regarding justification of the proposed protection area, Project Authorities replied that the cultivable land in the state is limited. As such, their protection against damage due to flood is essential in order to assure production of food grains in the area. They also mentioned that carriage of food grains in Arunachal Pradesh is a costly affair due to topography of the State.

After brief discussion, the Committee accepted the proposals.



7.0 FLOOD CONTROL SCHEMES OF BIHAR:

- a) **Anti erosion works along river Ganga (i) near village Kasimchak in Danapur diara on the left bank, (ii) downstream of Mokama bridge on the left bank, (iii) downstream of Vikramshila bridge on the left bank (iv) town protection work near Patna City and Ramnagar Diara on the right bank and (v) near village Mathurapur Ami on the left bank, Bihar** (Estimated Cost – Rs 63.54 crore with B.C. Ratio 2.11)
- b) **Anti erosion works at Koerpatti between 27 mile to 32 mile of Champaran Embankment on the left bank of river Gandak in the district West Champaran, Bihar** (Estimated Cost – Rs 19.80 crore at 2010 – PL with B.C. Ratio 2.64)
- c) **Scheme for breach closure of Saran embankment, anti erosion works and raising and strengthening of Pathara Chharki embankment on river Gandak, Bihar** (Estimated Cost – Rs 57.15 crore at 2010 – PL with B.C. Ratio 3.24)
- d) **Scheme for flood protection works of Pipra-Piprasi embankment on right bank of river Gandak in Bihar** (Estimated Cost – Rs 21.73 crore at 2010 – PL with B.C. Ratio of 3.37)
- e) **Bagmati Flood Management Project - Phase II, Bihar** (Estimated Cost – Rs. 596.51 crore at 2010 – PL with B.C. Ratio 1.32)

CE, PAO, CWC briefly introduced the above project proposals. The Chairman, Ganga Flood Control Commission further elaborated the features of the proposal. In reply to query about target dates of completion of the above projects, the Project Authorities replied that the execution of all the projects except Bagmati Flood Management Project - Phase II would adhere to the target dates.

After brief discussions, the committee accepted the above proposals and in view of the comparatively high cost, the committee decided that the time schedule of the Bagmati Flood Management Project – Phase-II be extended up to March, 2013.



8.0 PHINA SINGH MEDIUM IRRIGATION PROJECT (NEW-MEDIUM, Rs. 204.51 crore at 2011-PL), HIMACHAL PRADESH

CE, PAO briefly introduced the proposal of the project. The cost of the project has been finalized for Rs. 204.51 crore at 2011 price level with B.C. Ratio of 1.86.

In reply to the query about target date of completion of the project, the Project Authorities explained that most of the ongoing projects in State are in the final stage of completion and thus there would be no difficulty in completion of Phina Singh Medium Irrigation Project as per the given implementation schedule.

After brief discussions, the committee accepted the proposal.

9.0 KUSHALPURA IRRIGATION PROJECT (NEW- MEDIUM), MADHYA PRDAESH

Chief Engineer (PAO), CWC briefly introduced the proposal and stated that the Project proposal has been examined in CWC and other Agencies. The cost estimate for the project has been finalized as Rs. 83.9747 Cr. (2009 PL) with BC ratio of 2.29. It was pointed out that rate of Soybean in the pre and post project stage is not the same in view of the fact that the quality of the produce being the same. It was accordingly advised to make the necessary correction in the B.C. Ratio computations. With this condition the committee accepted the proposal.

As per the observation of the committee, the B.C. Ratio was recomputed and was found to be 2.26 instead of 2.29 (the details at **Annexure-III**).

10.0 BAGHARRU IRRIGATION PROJECT (NEW- MEDIUM), MADHYA PRDAESH

Chief Engineer (PAO), CWC briefly introduced the project proposal and stated that the proposal has been examined in CWC and by other Agencies. The cost estimate for the project has been finalized as Rs. 50.5867 crore (2009 PL) with B.C.Ratio 1.77.

After brief discussion, the committee accepted the proposal.



11.0 REHTI IRRIGATION PROJECT (NEW- MEDIUM), MADHYA PRDAESH

Chief Engineer (PAO), CWC briefly introduced the project proposal and stated that the proposal has been examined in CWC and by other Agencies. The cost estimate for the project has been finalized as Rs. 48.7685 Cr. (2009 PL) with B.C Ratio 1.63.

After brief discussion, the committee accepted the proposal.

12.0 BEMBLA RIVER PROJECT (REVISED-MAJOR, Rs. 2166.35 crore at 2008-09-PL), MAHARASHTRA:

CE, PAO briefly introduced the revised proposal of the project and stated that the revision in the cost was due to price escalation, change in design and inadequate provision in the earlier estimate and the same has been examined and found technoeconomically viable. The BC ratio of the project has been worked out to be 1.24. State Finance Concurrence has been received from the State Govt. of Maharashtra.

The Committee observed that the additional cost was primarily in respect of lining of the main canal, and also due to some changes in design etc. The Committee also observed that there was no increase in the annual irrigation. Further, the revised proposal suggested for use of 16.84 MCM of water being incidentally saved due to lining, is proposed to be utilized by a Thermal power plant likely to be constructed. On query, it has been mentioned that with this saving further extension of the command area under the project is not possible due to topography.

In view of the above position, the Committee was of the opinion that the proposal may not be accepted in the present form.

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**LIST OF PARTICIPANTS IN 109TH MEETING OF ADVISORY COMMITTEE
HELD ON 14.03.2011**

Members of the Committee:

S/ Shri

- | | | |
|----|---|-------------------|
| 1. | D.V. Singh, Secretary (WR), Ministry of Water Resources | In the Chair |
| 2. | A.K. Bajaj, Chairman, CWC, New Delhi | Member |
| 3. | Mrs. Ananya Ray, Financial Advisor, Ministry of Water Resources | Member |
| 4. | Avinash Mishra, Jt. Advisor (WR) (Representing Advisor, Planning Commission) | Member |
| 5. | Tanmoy Das, Chief engineer, CEA, (Representing Ministry of Power and Central Electricity Authority) | Member |
| 6. | Dr. Poonam Sharma, Scientist - D, (Representing Central Ground Water Board) | Member |
| 7. | S. K. Srivastava, Chief Engineer, PAO, CWC, New Delhi | Member- Secretary |

Special Invitees

a) Ministry of Finance

S/ Shri

8. B. Bandopadhyay, Joint Director (Cost), (Representing Chief Advisor Cost, Ministry of Finance)

b) Ministry of water Resources

S/ Shri

9. A.B. Pandya, Commissioner (Projects), MoWR, New Delhi
10. G. Aranganathan, Commissioner (Indus), MoWR, New Delhi
11. A.S.P. Sinha, Senior Jt. Commissioner (Ganga), MoWR, New Delhi

c) Central Water Commission

S/ Shri

12. R. C. Jha, Member (RM), CWC, New Delhi
13. S.P. Kakran, Member (D&R), CWC, New Delhi
14. M.E. Haque, Member (WP&P), CWC, New Delhi
15. M.K. Sinha, Chief Engineer, PMO, CWC, New Delhi
16. V.K. Chawala, Chief Engineer, IMO, CWC, New Delhi
17. G.Thakur, Director, CA (I), CWC, New Delhi
18. Ajay Kumar, Director, PA (N), CWC, New Delhi
19. Deepak Kumar, Director, FM-II, CWC, New Delhi
20. P. Dorje Gyamba, Director, CWC, Shimla.
21. Bashishtha Rai, DD, PA (C), CWC, New Delhi
22. M.W. Paunikar, DD, PA (N), CWC, New Delhi



d) GFCC

- 23. A.K. Ganju, Chairman, GFCC, Patna
- 24. S. Masood Husain, Member (P/C), GFCC, Patna

e) State Government officers

S/ Shri

Arunachal Pradesh

- 25. Hari Krishna Paliwal, Principal Secretary, WRD, Govt. of Arunachal Pradesh, Itanagar.
- 26. L. Angu, Chief Engineer, WRD, Govt. of Arunachal Pradesh, Itanagar.
- 27. Harish Kumar, Liason Officer, WRD, Govt. of Arunachal Pradesh, New Delhi

Bihar

- 28. R. Dayal, Engineer-in-Chief (North), WRD, Govt. of Bihar, Patna
- 29. P.K.Jha, Resident Engineer, WRD, Govt. of Bihar, New Delhi

Himachal Pradesh

- 30. M.S. Kanwar, Chief Engineer, I&PH Deptt, Dharmasala, H.P.
- 31. Raghubir Singh, SE, I&PH Deptt, Nurpur, H.P.
- 32. Sunil Datt Chaudhary, EE, I&PH Deptt, Nurpur, H.P.

Jharkhand

- 33. B.C. Nigam, Spl. Secretary, Water Resources, Govt. of Jharkhand, Ranchi
- 34. B.M. Kumar, Chief Engineer, SMPP, Jamshedpur
- 35. Bipin Kumar Singh, SE, WRD, Ranchi
- 36. A.K. Sinha, Resident Engineer cum OSD, Govt. of Jharkhand, New Delhi

Madhya Pradesh

- 37. R.S. Julaniya, Principal Secretary, WRD, Bhopal

Maharashtra

- 38. E.B. Patil, Secretary, WRD, Govt. of Maharashtra, Mumbai
- 39. S.N. Huddar, Advisor to WRD, Govt. of Maharashtra
- 40. P.C. Zapke, Executive Director, VIDC,
- 41. D.R. Kandi, Executive Director, MKVDC
- 42. H.K. Tonape, Executive Director, TIDC
- 43. C.A. Birajdar, Chief Engineer (SP), WRD, Pune.
- 44. S.M. Upase, Chief Engineer, WRD
- 45. K.B. Kulkarni, SE, Satara I.P.C, Satara.

46. K. H. Ansari, SE, Sangli Irr. Circle, Sangli.
46. S.D. Salunke, SE, Yavatmal Irr. Circle., Yavatmal.
47. S.K. Dhoble EE, Bembla Project, Yavatmal.
48. Kiran Patil, EE, MID, Sangli.
49. A.D. Shinde, EE, Tembhu Lift Irr. Project, Sangli.
50. Prashant P. Kadwkar EE, Urmodi Irr. Project, Satara
51. Rajesh M. More, EE, Wagur Irr, Project, Jalgaon
52. V.D. Patil, EE, Design Unit, Jalgaon



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web site: www.mahatidc.com

No. ED/TIDC/PB-5/Camp /2011

Date :- 14 / 03 / 2011

To,

✓ Chief Engineer (PAO),
Central Water Commission,
Seva Bhavan,
New Delhi.

Subject:- **Bodwad Parisar Sinchan Yojana & Waghur River Project**

Discussion held in 109th TAC dt 14th March regarding rates and
yield in pre & post irrigation condition.

Sir,

With reference to subjected discussion following compliances are
submitted herewith for further action.

1. Generally we adopt the yield per ha. and rates of produce per quintal as suggested by State Agriculture Department which in turn gives the figures on average basis for rates of agriculture produce sold in Marketing Committees in a year. For yields it gives figure of actual experiments / observations in different regions.
2. Difference in rates:- For Un-irrigated and irrigated situation. As far as grain crops are concerned there is difference in both the conditions because of
 - a) Grain size (more in irrigated condition).
 - b) Grain density more in irrigated condition for Jawar, Gram, Bajara etc.
 - c) If irrigation is provided better qualities can be grown. e.g. in Gram varieties like Chafa, Mexicain dollar, Kabuli which is sold at higher rates. Like wise in Jawar CSH5 to CSH10 can grow in irrigated condition, for Paddy – Indrayani, Ambemohar can be grown gives more rates and yield.
 - d) For Desi cotton and L. S. Cotton there is difference in Staple length, Seed density & Oil percentage in irrigated condition fetching more rates and more yield.
 - e) At the time of tag formation (i.e. flowering stage) the shortage of water can make the difference in size & quality, which in turn affects rates of produce. Obviously there is difference in rates & yields of rain fed and irrigated produce.

Bodwad Parisar Sinchan Yojana:-

- 1) There is difference in rates per quintal of Desi cotton and L.S. cotton in pre & post irrigation they are Rs. 2700 / 2900 and Rs. 2900 / 3100 per quintal respectively. Because of difference in water availability, more length of staple, size of seeds and oil percentage increase which can give better rates.
- 2) Paddy - The difference in rates in pre irrigated and post irrigated condition i.e. Rs. 1500 / 2000 per quintal is because of difference in sowing of better variety, grain size & quality improvement.
- 3) Gram - The difference in rates in pre irrigated and post irrigated condition Rs. 1800 / 3000 per quintal is because of sowing of good variety like Mexican dollar, Chafa etc. with irrigated condition which gives higher rates.

The yields and rates are acceptable as per letter given by Dy. Commissioner, MoA, GOI. No.12-3/2010-CU-I / GOI, MoA Department of Agriculture & Co-op. New Delhi. Dated 14th March 2011.

Waghur River Project:-

There is difference of rate adopted for Gram in pre / post irrigation which is Rs. 3500 / 3000 per quintal respectively. This is a error of calculation. It should have been same or more for post irrigation. It resulting in improvement in B. C. Ratio of project, but as the area considered under Gram is less, so no substantial increase in B.C. Ratio observed. However the rates & yields are approved by Director, Agriculture, Maharashtra State and accepted by MoA, GOI vide Letter No 12-8/2010-CU-I, Dated 15th Feb. 2011.

O. C. Signed By E.D.

D.A.— 1. Letter of MoA, Col for Bodwad & Waghur Project

2. B. C. Ratio calculation of Bodwad & Waghur Project

3. Letter of Director, Agri. M.S. for Bodwad & Waghur Project

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For Executive Director,
Tapi Irrigation Development
Corporation, Jalgaon.

MAHARSHTRA KRISHNA VALLEY DEVELOPMENT CORPORATION, PUNE

"SinchanBhavan", Barne Road , Pune – 11

No. ED/MKVDC/PB/Camp /2011

Date :- 14 / 03 / 2011

To,

Chief Engineer (PAO),
Central Water Commission,
Seva Bhavan,
New Delhi.

Subject:- **Tembhu Lift Irrigation Project**

Discussion held in 109th TAC dt 14th March regarding rates and yield in pre & post irrigation condition.

Sir,

With reference to subjected discussion following compliances are submitted herewith for further action.

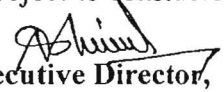
1. The yield & rates of agricultural crops, Pre & Post Project are approved by the District Superintendent Agricultural Officer Sangli vide letter No.DSAO/Stat/6170/2010 dated 01.11.2010 (The copy enclosed herewith).
2. The common crops in Pre and Post Project are Hybrid Jawar (Kharif), Gram, Wheat, Jawar (Kharif) & Sunflower.
3. The Pre and Post Project crop rates for above crops are as below.

Name of Crop	Pre Project Rate (Rs/Quintal)	Post Project Rate (Rs/Quintal)
Hybrid Jawar (Kharif)	1150	1150
Jawar (Kharif)	1625	1625
Gram	2133	2050
Sunflower	2150	2150

3. The rates for Hybrid Jawar (Kharif), Jawar(Kharif) and Sunflower are same in both Pre and Post Project.
4. Gram:
 1. The rate of Gram in Pre Project is Rs. 2133/Quintle and post Project is Rs. 2050/Quintle. The rates are decided by the Agriculture Department. This may be due to averaging of the rates during deciding period. However, if rates of Gram in Post Project is considered same as Pre Project, it will improve the B. C. Ratio.

O. C. Signed By E.D.

D.A.– 1.Letter of District Superintendent Agricultural Officer Sangli


For Executive Director,
Maharashtra Krishna Valley
Development Corporation, Pune.

Copy – Secretary, (WR), Mantralaya, Mumbai for information.

MAHARASHTRA KRISHNA VALLEY DEVELOPMENT CORPORATION PUNE-11
(Maharashtra Government)

CHIEF ENGINEER (SP)
Water Resources Department

No. Delhi camp

Office of the Chief Engineer (SP)
MKVDC, Sinchan Bhavan
Barrie Road, Pune 411011
Date: 14-3-2011

To,

The Chief Engineer (PAO),
Member Secretary,
TAC, New Delhi.

Sub: Urmodi Project – compliance to the points raised during TAC meeting


Ref: Discussion in 109th Advisory Committee meeting on Irrigation, flood control and Multipurpose Project held on 14th March 2011

Sir,

The Revised Urmodi Project was discussed in the said meeting and Dy Advisor (cost) has raised some points. The compliance to the same is submitted herewith.

It is requested to consider the same and accept the project.

Yours,


Chief Engineer (SP)
Water Resources Department
Sinchan Bhavan, Pune 411011

DA: Compliance Report.

Copy submitted to The Dy. Advisor (Cost), Finance Department, Govt. of India for favour of information.

Brief note on B.C.-Ratio of Urmodi Irrigation Project, Satara
(109th Advisory Committee meeting, New Delhi Dt. 14th March 2011)

During discussion on Urmodi Project in the meeting Hon. member raised point on the rates of Groundnut being varying for Kharif - Un Irrigated (Rs. 2200 per Quintal) and Kharif - Irrigated (Rs. 2350 per Quintal).

Explanation:

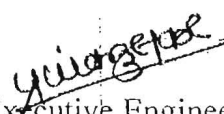
Sir,


The rates of crops adopted for working out BC ratio are certified by District Superintending Agriculture Officer, Dist. Satara.

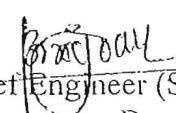
We have discussed the issue with the District Superintending Agriculture Officer and he has explained the reasons for varying rates as below.

1. The crops require more water when they are at the teg formation (flowering) stage. The rain-fed crops may not get sufficient and timely water affecting quality and yield of crop. Irrigated crops get assured water supply and hence are of better quality. Therefore rate of irrigated crops are on slightly higher side.
2. Also the rates of Groundnut are decided on the ratio of weight of nuts to the whole pod. Due to assured water supply this ratio is higher in case of Irrigated crop and therefore rates of irrigated crops is more.
3. The rainfed crops are more vulnerable to various diseases as compared to the irrigated ones.

As suggested, the Benefit Cost ratio of the project has been worked out by considering the Groundnut rates for both Kharif-Irrigated and Kharif -- Unirrigated crops to Rs. 2200 per Quintal, which worked out to be 1.071. The revised BC ratio is within the norms for DPAP area and hence it is requested to consider the compliance and accept the project.


Executive Engineer
Urmodi Dam Division
Satara


Superintending Engineer
Satara Irrigation project Circle
Satara


Chief Engineer (SP)
Water Resources Department
Pune

No 8/2/2008/Mon/ 03 (Camp Delhi)

Dated 15th March 2011

To,

✓ Director,
Project Appraisal (Central) Directorate,
Central Water Commission,
408(S), Sewa Bhawan, R K Puram,
New Delhi-110 066.

**Subject: Revised BC ratio and IRR calculations of Kushalpur Irrigation Project
(New Medium) of Madhya Pradesh; reg.**

Sir,

In pursuance of discussions during 109th TAC meeting and decision taken therein, the revised BC ratio and IRR calculations after taking into account rate of Soyabean as Rs 2700/- per Qtl during pre-project conditions similar to those adopted during post-project conditions for Kushalpur Irrigation Project (New Medium) are enclosed herewith. These calculations form part of TAC Note as **Annexure-X, X-A, X-B, X-C and XI** respectively.

The summary of revision is as under;

S No	Parameters	Values of parameters before revision	Values of parameters after revision
1.	BC Ratio :	2.29	2.26
2.	IRR :	20.32%	20.04%

Encl: as above

Yours faithfully,

15/3/11

(D.P. Mathuria) 15.3.2011
Director(M&A)

3-11-8
15/3/2011
DD

Copy along with enclosures to

1. Chief Engineer, Project Appraisal Organisation, CWC, New Delhi- 110 066

KUSHALPURA MEDIUM IRRIGATION PROJECT

FINANCIAL STATEMENT
BENEFIT COST RATIO

AS PER PLANNING COMMISSION NORMS

Sl. No.	Description	Rs in lakh
1	Total Cost of the Project	8,397.47
	Bearability Method	
1	Water Supply in MCM	6.00
2	Annual Revenue generation @ 4/- p Klitre	240.00
	Taking interest @ 10% of the capital cost	
3	Capital Cost on Water Supply	2400
4	Cost Allocated to irrigation component	5,997.47
A	Cost of Project	
i)	Estimated Cost of Project	5,997.47
ii)	Cost of land development @ Rs 20000 per ha for 6,300 ha CCA	1260.00
	Total	7257.47
B	Annual Cost	
i)	Interest charges @ 10% of the total cost of the project	725.75
ii)	Depreciation charges @ 1% of the cost of project assuming life of the project as 100 years	72.57
iii)	Annual O&M charges @ Rs 1175 per ha for 7,540 ha annual irrigation	88.60
iv)	Maintenance of Head Works @ 1% (I Works - B Land)	57.93
	Net Annual Cost	944.85
C	Annual Benefits	
i)	Net value of the irrigation produce after the project	2754.56
ii)	Net value of the irrigation produce before the project	637.83
iii)	Fisheries in 300 ha (average) submergence yielding 80 kg/ha @ Rs 80 p kg less charges @ 20% of production	15.36
	Net Annual Benefits (i - ii)	2132.09
	Benefit Cost Ratio	2.26

21.03.11
SB

(M.S. Dawar)
Chief Engineer
Chambal Betwa Basin,
Water Resources Deptt., Bhopal-16


ANNEXURE-X-A

KUSHALPURA MEDIUM IRRIGATION PROJECT

**FINANCIAL STATEMENT
NET BENEFITS**

PRE AND POST PROJECT

Sl. No.	Particulars	Post-benefits	Pre-benefits
A	Gross Receipts		
i)	Gross value of farm produce	4434.80	1446.83
ii)	Add dung receipt at 30% of fodder expenditure	199.57	43.40
	Total Receipts	4634.37	1490.23
B	Expenses		
i)	Expenditure on seeds		
ii)	Expenditure on manure		
iii)	Expenditure on agro-chemicals	873.11	567.38
iv)	Expenditure on Labour & transportation		
v)	Fodder expenses		
	a) 15% of gross value of produce for post benefits	665.22	
	b) 10% of gross value of produce for pre benefits		144.68
vi)	Depreciation of implements at 2.7% of the gross value of produce	119.74	39.06
vii)	Share and cash rent		
	a) 3% of gross value of produce for post benefits	133.04	
	b) 5% of gross value of produce for pre benefits		72.34
viii)	Land revenue at 2% of gross value of produce	88.70	28.94
	Total Expenses	1879.81	352.40
	Net value of produce = Total receipt - Total expenses	2754.56	637.83


 21.03.11
(M.S. Dawar)
 Chief Engineer
 Chambal Betwa Basin,
 Water Resources Dept., Bhopal-46

ANNEXURE-X-B

KUSHALPURA MEDIUM IRRIGATION PROJECT

FINANCIAL STATEMENT

ESTIMATED VALUE OF PRODUCE / EXPENDITURE AFTER IRRIGATION

Sl. No.	Crop Name	Area in ha	Produce per ha in Qal	Total produce in Qal	Rate per Qal	Value of produce in lakhs	By Product per ha in Qal	Total by produce in Qal	Rate per Qal	Value of by produce in lakhs	Gross value of farm produce in lakhs	Cost of Material in Rs lakhs								Net value of produce Rs in lakhs		
												Seed		Fertilizer		Pesticide		Hired Labour				
												Rate	Area	Rate	Area	Rate	Area	Rate	Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
1	Soyabean	1900	25.00	47,500.00	2780.00	1,282.50	5.00	9,500.00	10.00	0.95	1,283.45	1,510.00	28.69	3,375.00	04.13	2,825.00	53.66	2,925.00	55.54	202.00	1,081.37	
2	Wheat (dry)	1500	37.00	55,500.00	1,250.00	693.75	60.00	90,000.00	150.00	135.00	828.75	2,025.00	30.34	2,530.00	35.25	2,175.00	32.63	3,250.00	78.75	190.00	648.75	
3	Wheat (hyb)	2500	45.00	1,12,500.00	1,250.00	1,406.25	60.00	1,50,000.00	150.00	237.60	1,722.00	2,025.00	53.46	2,550.00	67.32	2,175.00	57.42	3,400.00	142.55	320.75	1,401.85	
5	Grass	1500	20.00	30,000.00	2,000.00	600.00	5.00	7,500.00	0.00	0.00	600.00	1,100.00	19.50	3,375.00	50.03	2,175.00	52.63	4,500.00	61.34	170.76	429.24	
	Total	7500		2,35,500.00		4,081.35		2,45,000.00		373.55	4,434.80		132.83		270.39		176.36		364.59	873.18	3,561.60	

21.03.11
(M.S. Dwar)

Chief Engineer
Chambal Betwa Basin,
Water Resources Deptt., Bhopal-10

FROM :

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21 Mar. 2011 6:29PM P3