

A decorative graphic on a blue background. It features a large, stylized number '7' inside a white circle with a light blue border. To the left of the circle, there are several overlapping lines: a dark blue line, a light blue line, and a black line, all forming a shape that resembles a '7'. To the right of the circle, there are two horizontal lines: a light blue line on top and a black line on the bottom.

7

CHAPTER

7

Chapter

Monitoring and Evaluation

7.1 Introduction

As per the Flood Management Programme (FMP) Guidelines, the following have been prescribed under Monitoring Mechanism and Evaluation Studies:

- a. Monitoring of the scheme/projects under FMP to be carried out by the Central Water Commission (CWC), Ganga Flood Control Commission (GFCC) and Brahmaputra Board (BB) in their respective jurisdictions.
- b. For the schemes costing less than ₹ 7.50 crore, the performance was to be evaluated after the schemes were completed. The Performance evaluation of the completed works to be conducted by independent specialized/professional agencies having expertise in related fields in consultation with CWC/ GFCC/ BB as the case may be.
- c. State Governments was to commission concurrent evaluation studies for the schemes which cost more than ₹ 7.50 crore through reputed organization(s) (not under the administrative control of MoWR, RD&GR, Gol or under the Irrigation/ Water Resources Department of the State Government).
- d. Department of Space/NRSC to be associated in monitoring of physical progress of the schemes through advanced techniques such as Remote Sensing.
- e. Monitoring teams of CWC/GFCC/BB to monitor the physical and financial progress of the schemes. They were to conduct sample checks on the quality of construction materials and quality of works during their field visits. The samples taken/witnessed at site by the teams were to be tested for quality checks and results thereof were to be reflected in the monitoring reports.

We evaluated the extent of monitoring of schemes for Flood Control and Flood Forecasting on the basis of FMP Guidelines. Our observations are given in succeeding paragraphs.

7.2 Monitoring by Central Agencies (CWC/GFCC/BB)

As per para 4.13 of FMP Guidelines 2009, State Governments were required to submit quarterly reports on physical and financial progress of the projects to the monitoring agencies. Para 4.13 of FMP guidelines also stipulated that for the works costing more than ₹ 15 crore, the Monitoring Agencies (CWC/GFCC/BB) would inspect the works, at least once in every financial year.

As per para 5.1 of FMP Guidelines 2009, monitoring of the scheme/projects under the FMP for physical and financial progress of the projects was to be carried out by CWC, GFCC and BB in their respective jurisdictions.

We observed that monitoring of projects was not conducted by the concerned Central agencies in Arunachal Pradesh and Assam. We also observed that project authorities in Bihar and Jammu & Kashmir did not submit the quarterly progress reports to the Ministry. No information was furnished by the remaining 13 States/UT selected for audit.

Thus, Central and State agencies did not comply with the FMP guidelines in respect of monitoring of projects.

7.3 Performance evaluation of completed projects

As per para 5.8 of FMP Guidelines 2009, performance evaluation of the completed works was to be conducted by independent specialized/ professional agencies having expertise in related fields in consultation with CWC/GFCC/BB as the case may be.

We observed deficiencies in carrying out performance evaluation in 12 States (Arunachal Pradesh, Assam, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Odisha, Manipur, Sikkim, Tamil Nadu and West Bengal). In Uttarakhand, performance evaluation was carried out departmentally. In Kerala, Puducherry and Punjab, projects were not completed, hence performance evaluation was not required and in Uttar Pradesh no information was furnished. The deficiencies in performance evaluation are enumerated below.

- a. No performance evaluation was conducted for the projects in Bihar, Haryana, Himachal Pradesh, Jharkhand and Odisha.
- b. Consultation of the GFCC/BB in connection with the performance evaluation as required under the guidelines was not done for completed projects in Arunachal Pradesh, Assam, Bihar, Sikkim and Manipur.
- c. Dates of site visit/evaluation were neither mentioned in the evaluation reports, nor were they signed by the evaluating officers in projects of Arunachal Pradesh and Assam.

- d. The evaluation reports of projects implemented in Arunachal Pradesh did not mention the evaluation of actual achievements against targets in respect of area protected, village/towns to be protected and population benefited.

We further noticed that the State Governments did not take action on the deficiencies pointed out by the expert agencies after performance evaluation of the projects. These instances are discussed below:

- a. **Manipur:** Report of performance evaluation of one sampled project MAN-13 indicated that the performance of the scheme/project at two locations i.e. Jirighat and Khutchoithup were not satisfactory. At Jirighat, heavy damages had been caused to the retaining structures and at Khutchoithup, the river had completely submerged some portion of the retaining structure.

Action was not taken for rectification of the deficiencies pointed out by the performance evaluation team.

- b. **Sikkim:** The performance evolution of 24 FMP projects was conducted by NABARD Consultancy Services (NABCONS), which gave the following suggestions:
 - a. Latest equipment to be acquired to deal with any emergency;
 - b. Effective flood alert system should be in place to prevent calamities;
 - c. State Government to provide budgetary support to carry out maintenance;
 - d. Galvanised iron wire to be used in place of Barbed wire; and
 - e. Assets Register to be maintained.

The State Government did not take action on any of the above suggestions/recommendations.

- c. **West Bengal:** Performance evaluation of the project WB-17 (Phase-II) was conducted (April 2014) by IIT Kharagpur. The expert agency suggested that proper maintenance work through reshaping the channel cross sections to maintain its geometry needed to be undertaken at regular intervals, preferably once in a year. We observed that no action was taken by the Irrigation and Waterways Department on the recommendation of IIT.

The Department stated (June 2016) that the embankments were being constructed as per drawing and availability of land. The fact remained that

maintenance work at regular intervals of once in a year as suggested by the expert agency, was not done.

Failure to take action to implement the suggestions and recommendations of experts on the performance evaluation of completed projects defeated the purpose of conducting the performance evaluation.

The Ministry stated (February 2017) that Proposals for Performance Evaluation Studies for some of the schemes are under process.

7.4 Concurrent evaluation of projects

Para 5.4 of FMP Guidelines 2009 stipulates that State Governments were to commission concurrent evaluation studies for the schemes which cost more than ₹ 7.50 crore through reputed organization(s) (not under the administrative control of MoWR, RD&GR, Gol or under the Irrigation/Water Resources Department of the State Government). For the schemes costing less than ₹ 7.50 crore, performance was to be evaluated after the schemes were completed. The concurrent evaluation report was to be submitted to the monitoring agencies (CWC/GFCC/BB).

We reviewed concurrent evaluation of the projects as per FMP guidelines in the 17 selected States/UT and observed the following:

- a. Concurrent evaluation was not conducted in accordance with the scheme guidelines in Assam (six projects), Himachal Pradesh (two projects) and West Bengal (one project). It was not carried out by reputed organization(s) (not under the administrative control of MoWR, RD&GR, Gol or under the Irrigation and Water Resources Department of the State Government).
- b. In Uttar Pradesh, Central share of ₹ 293.17 crore was outstanding as of March 2016 for want of evaluation report and audited statement of expenditure. Consequently, the State Government released ₹ 119.66 crore in excess of its due share. The Irrigation and Water Resources Department stated that all required documents were sent to Gol in time for release of Central share. The reply was not acceptable as the Department failed to submit required evaluation reports and audited statements of projects to the monitoring agencies.
- c. Concurrent evaluation was conducted through retired engineers of the Water Resources Departments in Bihar and Jharkhand in contravention of the guidelines. In Assam, the concurrent evaluation was carried out (March 2015) by Polytechnic/Engineering Colleges and NEDFi, without consulting IIT/BB.

- d. In Haryana, concurrent evaluation was not carried out and in Punjab, out of five projects, concurrent evaluation was carried out in only one project (PB-3). In four States i.e. Jammu & Kashmir, Kerala, Odisha and Uttar Pradesh concurrent evaluation was carried out but in Manipur, projects were less than ₹ 7.50 crore, hence no concurrent evaluation was required.

Thus, it was evident that concurrent evaluation was not as per the guidelines and MoWR, RD&GR also did not ensure that the evaluation was conducted.

The Ministry stated (December 2016) that the evaluations were normally being carried out as per FMP guidelines. The fact remained that there were many instances of non-evaluation of projects.

7.5 Application of Remote Sensing in planning of FMP projects

According to a research paper submitted by GFCC, satellite remote sensing coupled with Geographical Information System (GIS) has a powerful role in monitoring and mapping flood inundated and drainage congested areas. Remote sensing techniques using satellite imageries was most reliable and scientific method in evaluation of flood affected area and the damages. Agenda notes for first meeting of Regional Committee for Scientific Assessment of Flood Prone Area in Uttar Pradesh also pointed out (October 2015) that use of latest technologies viz., remote sensing, GIS, DEM, contour map of finer intervals will also enhance the quality of data collection. Recent advances in remote sensing techniques can effectively monitor, provide fairly reliable information and identify the extent of the total area and the cropped area affected by floods over a period of time using satellites imageries of different windows.

We found that satellite imagery from NRSC was used in Flood prone area only in the States of Odisha and Uttar Pradesh. Thus, Remote Sensing techniques were not used in the planning for FMP projects in all the States.

The Ministry stated (December 2016) that Remote Sensing Technology could be used subject to availability of adequate funds.

7.6 Quality control in execution of work

As per FMP guide lines, the monitoring agencies (CWC/GFCC/BB) were to monitor the physical and financial progress of the schemes. They would conduct sample checks on the quality of construction materials and quality of works during their field visits. The samples taken/ witnessed at site by the teams were to be tested for quality checks and results thereof would be reflected in the monitoring reports.

Audit observed that the prescribed quality checks were not conducted by the monitoring agencies (CWC/GFCC/BB) in 77 projects of seven States⁵⁵ examined in audit. The details of quality checks in respect of projects pertaining to remaining ten States were not made available to Audit.


The Ministry stated (December 2016) that the CWC/GFCC/BB do not have their own Quality control laboratories and it was the responsibility of the Project Authorities to ensure that the works were executed conforming to the prescribed standards. The Ministry added that the monitoring team, as required, carried out random sample checks in the laboratories maintained by the project authority.

The fact remained that neither CWC/GFCC/BB nor the project authorities carried out the requisite quality checks in all projects and there was failure of State Governments to take follow up action on irregularities pointed out.



7.7 Joint site visits



We conducted joint site visits of 47 projects/sites under FMP, 17 Flood Forecasting Station and 54 Dams comprising of teams from Audit and executing agencies. We noticed deficiencies in the projects, some of the major findings are discussed in the Tables 7.1, 7.2 and 7.3.



Table 7.1: Observations relating to joint site visits of projects under Flood Management Programme

States	Project	Deficiency noticed
Arunachal Pradesh	ArP-6: Anti-erosion works of Noa Dehing river to protect Diyun Circle in Lohit river.	<p>Construction of Spur: Out of two spurs, Spur no.1 was found about 200 m away from the flow of the river while Spur No. 2 was completely damaged and submerged in sand.</p> <p>Construction of bank revetment with Launching Apron: Against a total provision of 1,005 m, a length of 413 m was constructed. The revetment was damaged and washed away on most stretches of the river bank and only patches of the structure remained as on June 2016.</p> <p>Construction of Earthen Embankment: Earthen Embankment of 1,500 m was constructed, without the provision for Grass turfing and providing non-woven Geo-textile, as required. Further, the prescribed height of the embankment as per design was 2.5 m with base width of 14.50 m, but it was found to be about 1 m and 8 m respectively.</p>
		
	The Revetment damaged and washed away on most stretches of the bank of the Lohit river.	

⁵⁵ Assam – 30, Haryana - 1, Himachal Pradesh – 5, Jammu & Kashmir – 21, Kerala – 4, Manipur – 11 and Punjab -5.

Bihar	BR-38: Mahananda Flood Management Scheme in District Katihar (Phase I)	Brick soling work was found damaged at few places of Embankment (km 1.90 to 14.60). Embankment was found breached between km 25 to 26 (about 223 m). State Highway (SH) 98 was found badly damaged and large area was found covered by local sand due to this breach.
Himachal Pradesh		At different places in Swan river, there were a number of rain cuts and depressions on the top of the embankments and a number of big green trees growing on the river side embankment. Further, repair works were not carried out throughout the length of the completed works due to non-availability of funds.
	Tree and bushes growing on embankment under HP-2 at km 42.900.	Approximately 1,600 m of earth embankment and eight studs/spurs were physically verified. Earth embankment executed at Pandorian was found 20 per cent damaged and 10 per cent studs/spurs were found partially damaged at Pandorian and Jakhole. Modern geo-textile/geo-synthetic material/geo bags, etc. were not used for longevity and durability of vulnerable embankments as prescribed. No plantations were made along the earth embankments.
Jharkhand	JHK-03: Anti-Erosion work in the right bank of river Ganga from Kanhaiyasthan to Budhwaria in Sahibganj District	Works related to apron were not visible. The Ganga Pump Canal Division, Sahibganj stated that siltation had occurred on the bank of the river. Several acres of land were being used for agriculture. Apron was beneath the earth.
	Man- 11: Anti-erosion Project of Iril River from RD 0.00 km to 30.00 km	<ul style="list-style-type: none"> i) In the construction of Reinforced Cement Concrete (RCC) Bored pile along Iril river Right Bank Bund at Sawombung bridge in portion II, the bracing structure was found broken/separated and tilted towards the river. ii) Cement Concrete retaining wall of 40 m length was constructed on Right Bank Bund (R/B/B) instead of Left Bank Bund of the river from RD 18.00 km to 18.04 km. This indicated discrepancy between actual site of execution and measurement records. iii) Construction of Cement Concrete retaining wall for the chainage 14.400 to 14.470 km at R/B/B of the river was found executed by two different agencies.

	<p>During site visit, marked difference was seen in the quality of works between these two retaining wall structures; while the Retaining Wall (R/Wall) at 14.400-14.440 km was found in good condition, the other R/Wall executed over 14.440 to 14.470 km by another agency was found in poor state.</p>	
<p>MAN-11- poor execution of work in one portion of the retaining wall</p>		
<p>Odisha</p>	<p>OR-21:Bank protection work on left bank of river Subarnarekha near village Namkana from RD 00 to 200 m and village Palasahi from RD 00 to 400m</p>	<p>The work was executed after witnessing devastating floods in 2006 and 2007 which caused erosion of river bank. At Palasahi, stone protection work was damaged due to slipping of stones due to lack of periodical repairs and maintenance. The fact was accepted by the Balasore Irrigation Division.</p>
<p>Sikkim</p>	<p>Sik-14:Anti Erosion works in and around Mangan in North Sikkim.</p>	<p>WRRDD undertook the work in two phases, viz. (i) Jhora Training Work (JTW) along Rafong Khola, Mangan and (ii) JTW along Rimit Khola, Mangan which was completed in December 2010. During the joint site visit, the work relating to the JTW along Rafong Khola, Mangan valuing ₹ 2.57 crore was found totally washed out.</p>
<p>Tamil Nadu</p>	<p>TN-04: Flood protection works on Kollidam (Coleroon) River in Thanjavur, Nagapattinam and Cuddalore districts.</p>	<p>Flood embankment work (60 km – LS108.21 km to 168.21 km) to left bank of Coleroon River was completed (March 2012). During site visit (July 2016) of 10 km stretch (LS 145.51 km to 155.51 km), it was noticed that jungle clearance in the flood embankments were not carried out. Water Resources Department stated (July 2016) that the State Government did not provide budget for maintenance of FMP works for the entire 60 km.</p>
<p>Uttar Pradesh</p>	<p>UP- 01: Const. of embankment on right side of Ami river from Kauriram to Khajni Gorakhpur</p>	<p>Against the sanctioned length of 23 km. embankment only 7 km could be completed with 5 gaps ranging 150 m to 1000 m. The embankment constructed was damaged due to non-maintenance.</p>
		
<p>Big gap in embankment of project UP-1 (as on 04.05.2016).</p>		

 <p>Big gap in embankment of project UP-4 (as on 07.05.2016)</p>	<p>UP-4: Construction of Mahadeva Uska Bund in district Siddhartha Nagar</p>	<p>Against the sanctioned length of 15 km, only 8.12 km could be completed with the gap of 400 m. None of the six regulators were constructed as provisioned in the approved project resulting in six gaps of 50 m to 60 m. No plantation work was carried out on the embankment though provisioned in the approved estimates.</p>
	<p>UP-12: Construction of Marginal Embankments & FPW along left & right bank of river</p>	<p>Out of 3.900 km embankment sanctioned, filter layer with course sand, brick ballast and boulder pitching work at river side slope of Harishchandra Ghat to Udaya Ghat was not done in the length of 1.050 km. Street light were provisioned for the entire length of 3.9 km, however, only electric poles were installed in 2.390 km and no electrification was done as of April 2016. Bituminous road of 2.390 km was constructed instead of approved length of 3.900 km of the embankment.</p>
	<p>UP-13: Flood Protection Works along the right bank of river Gandak in district Kushinagar</p>	<p>Proposed boulder pitching work from 4.50 km to 5.600 km at Amwa khas embankment was not carried out. Only 670 m. long spur was constructed at 3.700 km of Amwa Khas embankment against provisioned 865 m and only 40 m (upstream) and 26 m (downstream) boulder pitching at nose of spur was done against sanctioned 90 m and 60 m, respectively. Brick soling work of 865 m at spur was not done though provisioned in the project.</p>
<p>Uttarakhand</p>  <p>Showing plantation deep inside marginal bund</p>	<p>UK-1: Construction of Right Marginal bund on river Ganga from Bhogpur to Balawali.</p>	<p>i) There was a deep vertical cut in the marginal bund at the starting point at Bhogpur, downstream close to the spur which was used as an approach road to river side by tractors/Buggies. Such a cut posed a risk for the water to spill into the nearby Bhogpur village in case of monsoon flood, if any, besides leaving the marginal bund susceptible to damage.</p> <p>ii) The construction of 120 m spur at km 6.500 and stone pitching of embankment in its vicinity was undertaken as a strengthening measure of marginal bund under project UK-1. We noticed substantial long standing plantation inside</p>


		the bund and soil erosion in downstream bank. Existence of plantation inside the bund area was likely to increase the possibility of soil erosion and consequent weakening of the bund structure. This was evident from the damages to the spurs and repeated damage control measures being taken.
West Bengal	WB-14: Bank protection works along both banks of the river Bhagirathi at Sundarpur & Basantpur, Kazipara to Nabagram & Saharbat to Uttarasan	Almost entire stretch (2,000 m) of the protection work in Sanyalchar executed under the project was engulfed into the river. After damage by flood in July 2011, the Irrigation and Waterways Department did not execute any repair or maintenance work and the entire place was in very vulnerable condition. The Department opined that before undertaking any protective measures, morphological studies need to be undertaken.
		
Vulnerable condition of Sanyalchar embankment		

Table 7.2: Observations relating to joint site visits of projects under Flood Forecasting Scheme

States	Deficiency noticed
Assam	None of the three Flood Forecasting Station sites at Naharkatia, Jiabharali and Sivasagar had wire-less system in operation and in two sites (Naharkatia, Jiabharali) Telemetry system was not functioning.
Bihar	Siltation and water quality of Koelwar and Gandhi Ghat, Patna FFS was not ascertained and laboratory instruments were lying idle due to non-availability of Research Assistant. Boats were used on hire basis due to non-availability of Boatman for the departmental boat.




<p>Uttar Pradesh</p>  <p>Solar panel and RCC block for bubbler was in damaged condition at Phaphamau, Allahabad at Ganga</p>	<p>Solar panel and RCC block for bubbler was in damaged condition and bubbler was not linked to the system. Two-gauge level measurement pillars were broken at Phaphamau, Allahabad at Ganga. The solar panel of telemetry system was missing, due to which the system not in working condition. The bubbler chamber was covered with dirt and silt at Birdghat, Gorakhpur at river Rapti. Parts of Telemetry station were dismantled and kept in office. The bubbler chamber was covered with soil due to ongoing work at Hanuman Setu, Lucknow at River Gomati.</p>
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Table 7.3: Observations relating to joint site visits of Dams

States	Deficiency noticed
<p>Haryana</p>	<p>Basic measures such as telephone connection, CCTV cameras and gates for restricted entry to public, contact numbers of higher officers, civil authorities and police authorities were not available on dam. A check dam located upstream was damaged since 2010 but was not repaired.</p>
<p>Jharkhand</p>	<p>No operation manual was prepared by the State Government for operation of Getalsud, Nalkari and Tenughat dams. At Tilaiya Dam, three cable trays were drilled to pass electricity lines to the Pump House through the drainage gallery, which not only reduced the width of the gallery but also posed a threat to the dam structure. Operating manhole chamber on top of the road for operation of gates manually at Tilaiya Dam was not safeguarded with railing and protection ladders though recommended (July 2014) by the Dam Safety Review Panel. Dam Authorities also stated that remote operation of the gates was out of order since long. Status of operation of under-sluice gates, lighting on the spillway and dam top road, alarming system, vigilance devices and alternate power were not satisfactory in the light of safety of dams.</p>
<p>Odisha</p>	<p>i) Salandi Dam: Outlet Gates No. 2 and 3 were not in operating condition</p>

States	Deficiency noticed
	<p>requiring immediate repair.</p> <p>ii) Harabhangi Dam: One seepage point was noticed at Downstream side of earth dam which remained to be arrested.</p> <p>iii) Jambira Dam: Adequate warning device (Siren) was not provided at dam site.</p> <p>iv) Muran Dam: 60 kVA DG Set needed special repair.</p> <p>v) Rengali Dam: Cracks were observed near skin plate in best wall of sluice at Block No. 43 which required rectification.</p> <p>vi) Hirakud Dam: There was leaching in 39F2 hole of Block 39-40 and deposition of lime. The deposited lime was to be cleaned by reaming on regular basis.</p> <p>vii) Gohira Dam: Gate No 5 of Spillway Gate had problems in lifting requiring immediate attention.</p> <p>viii) Jalaput Dam: Spillway protection wall was found scored near about 100 m in left flank of spill channel requiring repair to check further retrogression.</p> <p>ix) Kanjihari Dam: Gate No 7 of Spillway Gate was not operating properly and was to be repaired and made functional. There was no standby generator for alternative power system for gate operation.</p> <p>x) Salia Dam: Cracks on the surface of the body wall of the Spill way require repairing.</p>
Tamil Nadu	<p>i) Aliyar Dam and Sholayar: Weed growth was noticed in the downstream of the dam. Further, uneven settlement in the top of the earthen dam was noticed in Ailyar Dam and formation of calcium deposit in drains inside gallery was noticed in Sholayar Dam.</p> <p>ii) Bhavanisagar Dam: Encroachments in low lying area of the right bank of river were not evicted. The accumulation of silt/sedimentation reduces the active storage capacity of the reservoirs.</p>

States	Deficiency noticed
<p>Uttar Pradesh</p>  <p>Seepage in the Lower Khajuri weir</p>	<p>i) Several seepage points were noticed at Lower Khajuri weir at Mirzapur.</p> <p>ii) Flood control room was not established at Sirsi dam at Mirzapur. Tools and plants and instrument were not available at the time of site visit at Sirsi, Meja, Dhandraul, Lower Khajuri & Upper Khajuri dams. Seepage register was not being maintained at site.</p>
<p>Uttarakhand</p>	<p>Leakage of water from the flushing conduit gates at Ichari Dam was noticed.</p>  <p>Leakage of water from the flushing conduit gates at Ichari Dam.</p>

The Ministry stated (December 2016) that the issue comes under the purview of States to address.

The Ministry does impress upon the State Governments suitably whenever required. Audit is of the view that in the test checked cases included in the report, the monitoring teams of CWC/GFCC/BB did not carry out random sampled checks, as required in the FMP guidelines.

7.8 Conclusion

In five States performance evaluation of the projects was not done by the monitoring agencies. Three State Governments did not take any action for rectification of the deficiencies pointed out during the performance evaluation of 26 completed Flood Management Programme projects. In three States concurrent evaluation of Flood Management Programme projects was not conducted in accordance with schemes guidelines. Remote Sensing was not used in the monitoring of Flood Management Programme projects. Monitoring agencies (CWC/GFCC/BB) failed to conduct quality tests on the quality of construction materials and works during field visits. Site verification of Flood Management Programme projects revealed that in 11 selected States the


structures viz. embankment/earthen-embankment, revetment, launching apron, retaining wall, Gabion guide wall, stone protection work, Reinforced Cement Concrete (RCC) piles were found damaged and gaps in construction of embankments, structures washed away, less physical quantity executed, work not visible/submerged, cut in marginal bund etc. were noticed. During site visits of Dams in 11 States, Audit noticed deficiencies relating to spillway gates, check Dams, weed growth and encroachment in downstream and low lying areas of Dams, seepages etc in 23 dams in six States.

7.9 Recommendations

We recommend that

- (i). MoWR, RD&GR may conduct performance evaluation and concurrent evaluation of all FMP projects as per FMP guidelines.
- (ii). MoWR, RD&GR may consider increasing the use of Remote Sensing Technology in the monitoring of FMP.
- (iii). CWC/GFCC may ensure quality tests on the quality of construction materials and works during field visits.
- (iv). MoWR, RD&GR may persuade the State Governments to immediately review the issues relating to damages/washing out of already constructed structures and take appropriate action for construction works not taken up.

New Delhi
Dated: 27 March 2017


(MANISH KUMAR)
Principal Director of Audit
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Countersigned

New Delhi
Dated: 29 March 2017


(SHASHI KANT SHARMA)
Comptroller and Auditor General of India