

The Bihar Irrigation, Flood Management and Drainage Rules, 2003

BIHAR

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Rule

THE-BIHAR-IRRIGATION-FLOOD-MANAGEMENT-AND-DRAINAGE-RULES OF 2003

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The Bihar Irrigation, Flood Management and Drainage Rules, 2003 Published vide Notification S.O. No. Yo. & Mo, 19-113/97-408 Patna, dated 25.4.2003, published in Bihar Gazette (Extraordinary) dated 28.4.2003 Water Resources Department Government, of Bihar Notification S.O. No. Yo. & Mo, 19-113/97-408 Patna, Dated 25.4.2003. - In exercise of the powers conferred by The Bihar Irrigation Act, 1997 under Section 115(1) & (2), The Government of Bihar is pleased to make the following Rules, namely. -

1. Short title, extent and commencement.

(1) These Rules will be called the "Bihar Irrigation, Flood Management and Drainage Rules, 2003". (2) It extends to the whole of the State of Bihar. (3) It shall come into force on the day before which the draft of it has been published in the official Gazette for a month.

2. Definitions.

- In these Rules, unless there is anything contrary to the subject or context. -(a) The "Act" means, the "Bihar Irrigation Act, 1997 (Bihar Act 11, 1998)". (b) "Section" means, the section of this Act. (c) "Proforma" means any proforma under Annexure of this Rule. (d) "System Level Committee" means the highest level committee of Water Users' Association in which there shall be representation from whole command area of canal system viz Distributary/Sub-distributary/Minor, transferred to Water Users' Association. (e) "Village Level Committee" means the lowest level committee of Water Users' Association, constituted in each village of the whole command area of the

canal system transferred to the Water Users' Association.

3. Irrigation Rules.

- 3.1. Information regarding operation of canals :-3.1.1. In exercising the powers conferred to it under Section 49 of Bihar Irrigation Act, 1997 (Bihar Act 11, 1998), after proper scrutiny, a notice regarding the date of operation of canals, period and the area in which water is to be supplied at different time by the irrigation projects of the State for supply of water for Kharif, Rabbi and hot weather crops as per the needs of the area shall be issued by the State Government or its authorised offices. This notice shall be issued at least 21 days prior to the opening of canal, unless and until some changes are made, the operation-programme as notified in the notice shall remain operative.3.1.2. The dates and periods of the opening of canal for different crops as stated in Rule 3.1.1 shall be so fixed as canals could be closed for at least one month after continuous supply of water from hot weather crops to kharif crops and, if needed again after rabbi crops, so that repair and maintenance could be carried out during these periods.3.1.3 During the two closure periods of canals as stated in Section 3.1.2., the required repair and maintenance works of canal systems or all other works related to operation of canal shall be completed in time after performing all formalities and observing departmental Rules. Amongst the required repair works, those below the full supply level (FSL), shall be given priority so that even if some work above FSL remain incomplete, the water could be supplied through canal on scheduled time.3.1.4 As soon as canals are closed, all remaining water in canals shall be drained out as far as possible by opening all escape regulators. Thereafter the Junior Engineer in charge, after inspecting canals and its structures, shall submit a report to the Sub-divisional Officer, drawing his attention towards the immediate repair works wherever needed and thereupon the Sub-divisional Officer after visiting these sites personally, shall submit his report to the Executive Engineer. The Executive Engineer after visiting the site personally shall take a decision on the extent of repair works needed on those sites. He shall ensure completion of repair works within stipulated time on priority basis after getting the estimates of repair and maintenance framed according to norms and sanctioned by the competent authority. The works, based on the estimate, framed after kharif irrigation which could not be carried out before opening of the canal for rabbi irrigation, shall be completed during the closure of canal after rabbi irrigation on the basis of estimate prepared earlier. The estimates, framed after kharif irrigation, shall remain valid for the work to be executed after rabbi irrigation also.3.2 Water supply. -3.2.1 The Sub-divisional Officer and Junior Engineer in-charge shall have special responsibility to get the repair works of all weirs, distributions system, escapes, head sluices, cross regulators and all outlets done as per requirement after getting approval of competent authority and it should be completed in all respect to retain water before release of water in canal so that no water is lost anywhere by leakage or seepage. In addition to this deweeding and desilting of beds of canals and distributaries in the upper reaches, wherever necessary shall be carried out so that there is no problem in smooth supply of water to the fields.3.2.2(a) Under Section 50 (i) of Bihar Irrigation Act, 1997 (Bihar Act 11, 1998) the Divisional Canal Officer or any other Officer, authorised by the State Government shall declare for assured irrigable command area and probable irrigable command areas separately to be irrigated by canal water. Generally those areas shall be included in assured irrigable command area, which have been getting irrigation water continuously since last five years. "Probable irrigable command area" means, the area, the irrigation of which is not assured but whose irrigation is

subject to the availability of water in that period.(b)Such declaration shall be widely published as per sub-section (2) of Section 50. The name of land owner, plot number and Khesra shall be indicated in the declaration.(c)if any discrepancy in plot No and khesra is found by any land owner he shall inform the same to the Canal Officer through the concerned Junior Engineer for its rectification within a week of such declaration.(d)If any objection regarding the name of land owner, plot no. and khesra is raised, the Canal Officer shall do necessary verification and report the same to the Divisional Canal Officer. The Divisional Canal Officer shall take appropriate action, if he feels the necessity of rectification in the Notification.(e)After declaration by the Section Officer in-charge a map shall be prepared showing assured irrigable command area and probable irrigable command area on village map for each village. Later on, if any alteration in such declared areas is made by Government Notification the same shall also be rectified in the map.3.2.3The Canal Officer shall appraise the water required for irrigation of assured irrigable command area and probable irrigable command area. This appraisalment shall be based on the water requirement as per cropping pattern prevalent in the area and timely water distribution management. In addition to this, the discharging capacity of canal shall also be taken care of. After the appraisalment of water requirement, the Canal Officer shall prepare weekly water demand for his sub-division.3.2.4The Sub-divisional Officer, after preparing the weekly water demand for his sub-division, shall forward the same to the Sub-divisional Officer-in-charge of the upstream reach. Then this Sub-divisional Officer after compiling the weekly water demand of his Sub-division along with the weekly water demand received from the Sub-divisional Officer in-charge down stream reach, shall forward the same to his upstream counterpart. Thus the complete water demand shall finally reach to the Sub-divisional Officer in-charge of head works. In the process, the last Sub-divisional Officer of a Division before sending weekly water demand to other division shall get the same vetted by his Executive Engineer. For smooth functioning of this process, the role of Executive Engineer and Superintending Engineer shall be to keep control over water demand on the basis of canal capacity, irrigation demand, rainfall, and other local conditions and they give necessary technical directions.3.2.5In case of non-availability of sufficient water at a time and for the economical use of water, the tatil system shall be planned for irrigation and in such situation accordingly water demand shall be prepared keeping this in view.3.2.6Operation manual for canal system shall be prepared project wise/wherein a particular day shall be fixed for presenting water demand, besides other matter by each Subdivision. Similarly a particular day shall be fixed for releasing discharge from head works so that the required water is available at particular place at schedule time as per the water demand.3.2.7The water indent shall be sent in each week, however, in case of excessive rain or drought if decrease or increase of water supply become essential then the contingent indent can be sent directly to the Engineer in-charge of head works through quick communication system like wireless, telephone or special messenger. The Engineer in-charge of head works shall act on that immediately and inform the same to all regulating stations.3.2.8Due to some reason if the discharge in canal is less than the demand it shall be distributed proportionately according to the requirements of different distribution systems or keeping the requirement of some particular area in mind, the Canal Officer can distribute it as per his wisdom. Similarly, in case of excessive discharge in canal, more than its capacity, the excess water shall be discharged into escape channel or if not possible, it shall be regulated by distributing proportionately according to the capacity of different canal systems and such information shall be passed on to the gate operator stationed at down stream regulators through quick service or special messenger, well in advance.3.2.9The Superintending Engineer shall

monitor the accounts of flow being made available through a canal/branch canal and area irrigated. The loss of canal discharge shall be estimated by calculating the duty/delta based on total quantity of canal water used for irrigating any area, and for this, specially, Technical Adviser to the Superintending Engineer shall be responsible.

3.3 Opening of canal outlet.

-3.3.1 The Section Officer, under the order of Canal Officer, shall regulate the water supply to the village channels and supervise the opening and closing of all the outlets.

3.3.2(a) A register of outlets, within the jurisdiction of a Section Officer indicating therein name of village channels and location of outlets, shall be maintained by all concerned Section Officers. In addition to it, a map of command area for these outlets, shown on village map shall be maintained.

(b) The Section Officer, without written order of Canal Officer, shall neither remove or make any alteration in the present outlets nor provide any additional outlet.

(c) Right of cutting of canal or channels, obstruction/alteration of flow, change of size and place of outlets shall vest in the Government and any encroachment on these rights by the users shall be a punishable offence under the Section 82 of the Bihar Irrigation Act, 1997 (Bihar Act 11, 1998).

3.3.3 After sudden heavy downpour during the monsoon season, draining out of canal water becomes a problem when the farmers use to close the outlets to save the crops. During this period, the Section Officer, after obtaining direction for draining out water and closing the concerned head regulator from the Canal Officer, shall act promptly and precisely.

3.3.4 As soon as water is available in canal for irrigation, the Section Officer, after obtaining direction from the Canal Officer shall open the outlets for the fields declared as assured irrigable command area under Rule 3.2.2.

3.3.5 The Section Officer shall ensure to make water available to all fields included in the assured irrigable command area.

3.3.6 Similarly, the water shall be made available to fields under probable irrigable command area depending upon the availability of water.

3.3.7(a) If any owner of the land, beyond the assured irrigable command area and probable irrigable command area, is desirous of water supply to his land from a canal, he shall make a written application to this effect on prescribed Form-1 under Section 53 (3) of the Act to the Canal Officer, who may make water available to the applicant in case of availability of water.

(b) If the Canal Officer is in a position to provide water, he will issue permission as Form-3 to this effect to the interested applicant.

3.3.8 Making water available to the applicants of para 3.3.6 and 3.3.7 shall not be mandatory. Water shall be made available to them on the basis of availability of water.

3.3.9 During irrigation period, a close watch on water distribution shall be kept and due attention shall be paid to ensure the water supply up to the last point of canal. If necessary, the Chief Engineer/Superintending Engineer shall constitute patrolling parties to keep watch on water distribution according to the need.

3.4 Assessment and collection of water charges.

-3.4.1 For assured irrigable command area, a permanent Khatian shall be prepared by Ziladar/Junior Engineer in-charge with the help of Amin and on that basis water charge shall be collected. The signature of owner farmers shall be taken on it. The Khatian shall be up-to-date every year after necessary examination of sale and transfer of lands among owners. The responsibility of informing the Canal Officer regarding the transfer will be on seller/transferee.

3.4.2 Sudkar shall be got done for the land to which water is supplied as per provisions of clause 3.3.6 and 3.3.7. There shall be an initial register for irrigation, prepared by Patrol Approximate measurement of irrigated land, the name of owner and the date of water supply shall be recorded in this register. The Patrol shall send his weekly report to the Section Officer who shall forward the same to the Canal Officer along with his own report.

3.4.3 The Patrol shall immediately report the matter of any unauthorised irrigation to the Section Officer who shall report the same to the Canal Officer.

3.4.4 The demand shall be prepared only on the basis of Khatian for

assured irrigable command area, but for probable irrigable command area and unauthorised irrigation the Amin will measure the irrigated area based on sudkar in the last phase of irrigation. During the measurement of irrigated area by Amin, the Patrol shall be present, who shall give the proper information regarding irrigated land. Thus, the Amin shall prepare a khesra. On this khesra the Patrol shall give a certificate that all irrigated, area recorded in sudkar, has been included in khesra. The Amin shall also record in khesra that which crop has been cultivated in which field and what was the status of crop. The signature of owner farmer shall be obtained on this khesra. If any owner raises any objection regarding any land, claiming that no irrigation has been done on that land the Amin will record the same with reason on the khesra and report the same to the Canal Officer. Such khesra prepared by the Amin shall form the actual basis for the assessment of irrigation charges. In addition to it, unauthorised uses of irrigation water shall be punishable under Section 82 of Bihar Irrigation Act, 1997 (Bihar Act 11,1998).

3.4.5 The Amin after preparing khesra, shall send it to the Canal Officer, through Ziladar/Junior Engineer-in-charge.

3.4.6 For checking the Sudkar work, and entries of the khesra register the Canal Officer, Junior Engineer/Ziladar shall check 10%, 20% and 30% of the entries respectively.

3.4.7 After checking, the Canal Officer shall endorse the khesra to the Ziladar/Junior Engineer with instruction to prepare the Khatian.

3.4.8 The Ziladar/Junior Engineer, who shall work under Canal Officer, on getting order of Canal Officer for checking the khesra, shall prepare owner farmer-wise demand slip by comparing the khesras with the last years khesra and survey khatian. A "birgi" shall be prepared by compiling owner farmer-wise demand in which total area of a owner farmer shall be recorded. Khatian (abstract of demand) shall be prepared from "birgi" and by which crop-wise and farmer-wise demand Shall be prepared.

3.4.9 The Canal Officer shall send the Khatian, duly signed by him after getting Ziladar's/Junior Engineer signature thereon, to the Divisional Office.

3.4.10 (a) In case of difference between the demand recorded in Khatian and sudkar area, the Divisional Canal Officer shall get it checked jointly by Canal Officer and Deputy Collector (Revenue) or nominated officers or their representatives of equivalent rank. On being satisfied he shall put his signature on Khatian and forward the same to Deputy Collector (Revenue) for revenue collection and shall also send a copy of the same to the Director, Revenue.

(b) Normally, the last date for sending the Khatian shall be as follows:-

Kharif - upto 30th November

Rabbi - upto 30th April

Hot weather crops - upto 15th June

3.4.11 Deputy-Collector shall send the demand statement to the Revenue Inspectors through Circle Officer. Irrigation Revenue Inspector, after recording these demands in the specific register kept for tax-collection from farmers, shall hand over to the tax collector who shall hand over the demand statements to the concerned farmer and shall get his signature on the register. The last date and place of payment shall be mentioned on the demand statement (parcha). This place may be kept at the office of Deputy Collector/Block Officer/Circle Officer, whichever deemed fit. The last date of payment shall be after 15 days of the handing over of demand statement (parcha). While handing over demand statement (parcha) the tax collector shall record the last date of payment on demand statement (parcha).

3.4.12 The Superintending Engineer shall take effective and suitable process for checking sudkar and ensure that no area, where irrigation was provided, is left without being accounted for sudkar. The Executive Engineer and the Superintending engineer shall check the

sudkar positively on sample basis by surprise inspection.

3.5 Remissions and Alterations of Demand

3.5.1 (a) Claims for remission of water charges under Section 54 (2) shall be presented to the Canal Officer in the prescribed pro-forma either personally or by registered post at least twenty days before the harvesting of the crop and no such claims shall be admitted unless it is supported by proof of loss caused by failure of supply of water from the Government channel. **(b)** While such loss is proved, the Divisional Canal Officer shall, if he is satisfied that loss in probable irrigable command area or the area permitted for irrigation by the Canal Officer :- **(i)** exceeds two-third of the value of the normal irrigated crop, remit the whole of the water rate on such area. **(ii)** exceeds one third and is less than two-thirds of such value, remit one half of water rate. **(c)** While such a loss, in any area included in assured irrigable command area, is proved, the Divisional Canal Officer shall :- **(i)** If he is satisfied that the loss in any area in kharif crop exceeds one third of the value of normal irrigated crop, remit the three fourths of the annual water charge in case of kharif crop and no additional water rate for the coming rabbi crop, grown on the same field on which kharif was grown, shall be levied. **(ii)** Remit the one fourth of the annual water charges in case of rabbi and hot weather crops, if he is satisfied that the loss in any area exceeds one third of the normal value of irrigated crops and no kharif crop has been grown on the area in which the said rabbi and hot weather crop is being grown. **(d)** Save as provided in clause (b) & (c) no remission of water charges under Section 54(2) shall be granted.

3.5.2 (i) For the purpose of the discharge calculation made in order to verify claims for remission of water rate on account of failure of supply of water, the record of discharge gauging on distributaries, sub-distributaries or on other Government channels shall be deemed to be conclusive. **(ii)** As far as possible such discharge measurement shall be made at all controlling points in Government canals and village channels.

3.5.3 The Divisional Canal Officer may if he thinks fit, grant remission up to 10% of the water charges assessed on any area covered by a kharif season lease, if he is satisfied that the crop has failed and is not more than one quarter of average yield, notwithstanding that such failure is due to causes other than a deficiency in the supply of water from the Government channels.

3.5.4 A remission statement signed by the Superintending Engineer or the Divisional Canal Officer shall be sufficient authority for a refund by the Canal Deputy Collector.

3.5.5 The Canal Deputy Collector may make any such alteration in a demand statement received from the Divisional Canal Officer, which is necessary to correct only a clerical or arithmetical error. After that he shall inform the same to the Divisional Canal Officer.

3.5.6 The arrear of water charges shall be deemed as demand. Each arrear of water charges payable to the Government and each sum due to a person on account of realisation of water charges payable to the Government and taking into account each sum payable to a person on account of water charges as certified by the Canal Officer shall be deemed as demand and shall be realised according to Rule.

3.5.7 If any sum due on account of water charges cannot be collected owing to the debt, bankruptcy or absconding of the defaulter, the amount due may be written off as irrecoverable by the Superintending Engineer with the previous sanction of the State Government. A detailed list of all sums so written off shall be sent to the State Government.

3.5.8 Remission of water charges on account of widespread injury to crops caused by inundation, blight storms or any such extraordinary cause shall be granted only under the special order of the State Government.

3.6 Regarding transfer of the management of canal systems to Water Users' Association.

3.6.1 (a) On behalf of the Government, the Divisional Canal Officer, Water Resources Department shall transfer the management (operation, maintenance, assessment and collection of water rent) of canal system for a fixed period, to that Water Users Association who have applied for the same in prescribed Form-5

and whom the Department would consider competent for this and issue permission in Form-6 for this.(b)Water Resources Department will sign a memorandum of understanding with competent Association in the prescribed Form 7.3.6.2The Canal Officer shall authorise the System (canal) Level Committee to prepare the demand parcha and the System Level Committee to prepare the demand parcha and the System Level Committee shall get this work done with the help of Village Level Committee. The Canal Officer shall not be required to certify the entries made in the registers of System Level Committee and Village Level Committee:Provided that the Canal Officer shall have the right, to check the land irrigated and inspect the registers of water charges demand and realisation from time to time.3.6.3The Secretary of the System Level Committee shall submit an application to the Divisional Canal Officer either personally or by registered post at least twenty days before the harvesting of the crop for cancellation of water charges for the area where water has been supplied as per irrigation register but later on the crop has been lost on account of deficiency in water supply and the Divisional Canal Officer shall take a decision after verification on the same as per rule.3.6.4The System Level Committee shall maintain a register wherein details of all irrigated lands of each farmers as well as number of waterings in each plot and also sum of water demand for the irrigated land, amount paid by the farmers as water charges and receipt number shall be recorded.3.6.5A register as described in clause 3.6.4 shall also be maintained by each Village Level Committee.3.6.6(a)After each irrigation, the revenue demand, as per approved rate, based on the above mentioned records shall be assessed by the System Level Committee and the same shall be communicated to each farmers. The affected farmers shall have the right to see and understand the records of Village Level Committee with the help of a member of the Village Level Committee.(b)The concerned farmer, after receiving the demand, shall have to make payment to the System Level Committee within the stipulated time fixed by the System Level Committee.(c)The receipt book to be issued to the farmers at the time of collection of Water-rent-demand will be the same as issued to the general farmers in the State. Aforesaid receipt book shall be issued to the Secretary of Farmer's Association through Canal Officer by the Revenue Wing of Water Resources Department.3.6.7If any farmer does not pay the above said amount in time to the System Level Committee, it shall have the right to deny water in next crop cycle to such farmers and do needful for collection as per Rule. In this regard the Water Resources Department shall extend full co-operation to the Users' Association.3.6.8The Village Level Committee shall send all matters, related to alteration and remissions after scrutiny at its own level, to the System Level Committee, who shall pass the final decision on the same. This alteration and remission shall be valid only for irrigation matters and in other matters and other matters only lawful mutation shall be valid. A separate register shall also be kept for all these cases.3.6.9(a)The assessment of water rate for the first five years shall be done on the average of irrigated area in three consecutive kharif and rabbi season just before the transfer of the Canal System, and the System Level Committee shall deposit the share amount as assessed in memorandum of understanding and the balance amount shall be kept with itself to be spent on maintenance and operation of canal and its development.(b)Every year, the System Level Committee shall deposit the aforesaid share of water charges for kharif before 31st March and for rabbi before 30th June in Government treasury as per proper procedures and the same shall be intimated to the Divisional Canal Officer.(c)After each five years, the Government shall reconsider the average irrigated area and decision shall be taken on average irrigated area.3.6.10If due water charges, payable to the Government, is not deposited in the Government treasury by the System Level Committee within stipulated time, the supply of water shall be stopped in the next season and

the action shall be initiated for the realisation as per rules.3.6.11The Committee shall have the right to take earth from chart lands of canal for the maintenance but the right of its lease and revenue collection shall vest with the Government as usual.3.6.12The management of the Canal Systems transferred to the Water Users Association shall be regulated as per the provisions laid down in the memorandum of understanding prepared with the consent of Water Users' Association.3.6.13The Water Users' Association shall fix a logical and effective canal operation plan and enforce the same in the Canal System transferred to them so that the irrigation water would be available equitably in each portion of the command area.3.6.14If any person causes any damage to the canal system, obstructs flows, uses the canal unauthorisedly, obstructs works or causes any damage or contravenes any Rule of the canal system, transferred to the Water Users' Association, it shall initiate action against those persons under the provisions of Bihar Irrigation Act, 1997 (Bihar Act 11, 1998) and for this purpose, the Water Users' Association shall be considered as an agency working under the order of and on behalf of the Division Canal Officer and under this right this association shall work accordingly.3.7Miscellaneous :-3.7.1No person shall, after being forbidden, cause any animals or vehicle to pass across any of the works, banks or channel of any irrigation or drainage work except over such bridges, fords and ferries and their approaches as are provided for the purposes, unless he has been granted a written permit by the Canal Officer.3.7.2No official or member of any such ministerial or menial establishment employed on any canal shall, unless specially exempted by the State Government from this rule, have any interest in the distribution of water from any of the channels of the canal nor purchase or bid for any Government property sold thereon neither in his own name nor in the name of another person or jointly or in shares with other person nor shall any such official or member of any such ministerial or menial establishment purchase or take on lease any land within any area being supplied with water or which can be supplied with water from the canal except with the previous sanction in writing of the Superintending Engineer or of the Chief Engineer in the case of independent Division.3.7.3Except as provided in these Rules and Bihar Irrigation Act, 1997 (Bihar Act 11, 1998) no appeal shall be entertained against any order passed by the Canal Officer until the Sub-divisional Canal Officer shall modify any order passed by him in accordance with a subsequent order of the Divisional Canal Officer or Superintending Engineer, and the Divisional Canal Officer or Canal Deputy Collector shall modify any order passed by him in accordance with a subsequent order of the Superintending Engineer or of the Chief Engineer in the case of an independent Division.3.7.4The Chief Engineer shall exercise a general control over the activities of all officers in charge of Irrigation and Revenue works of the canals.3.7.5A Judicial Magistrate shall be deputed in each Chief Engineers Zone, engaged in irrigation works, who shall take the immediate cognizance of any offence in accordance with the provisions under the Bihar Irrigation Act, 1997 (Bihar Act 11, 1998), and the case shall be disposed off quickly.3.7.6Water supply for the purposes other than irrigation use. - Canal Officer under Section 57 of Bihar Irrigation Act, 1997 (Bihar Act 11, 1998) shall supply water for the purposes of other than irrigation use and issue permit as Form-4 of this Rules.3.7.6.1For this purpose the application by person/persons/firm interested, shall be submitted to the Canal Officer in prescribed Form-2.3.7.6.2The Canal Officer shall prepare an abstract of all such applications and with his recommendations send them to the Divisional Canal Officer who shall, through his Superintending Engineer, submit that abstract and recommendation with his own remark to the Chief Engineer. The Chief Engineer, depending upon availability and dependability of water, shall get permission from the department for diversion of such waters to the person/persons/firm

concerned and issue orders to the concerned Divisional Canal Officer, through the Superintending Engineer, to issue the permit in Form-4.3.7.6.3 Before issuing instruction to the Canal Officer for issue of the permit, the Divisional Canal Officer shall get an agreement signed by the person/persons/firms and getting signed this agreement, the Divisional Canal Officer shall issue instructions to the concerned Canal Officer to issue permit to the concerned person/persons/firms and resume water supply, within fifteen days of receiving of the order of the Chief Engineer. The following minimum provisions shall be in this agreement :- (i) The person/persons/firms being authorised to get water, shall use the water supplied only for the purpose for which the permit is issued. (ii) The person/persons/firms receiving the water shall deposit the sum of the bill prepared on the basis of water rates fixed by the Government from time to time in the treasury of the Divisional Canal Officer within fifteen days of the receipt of the bill. (iii) After preparing the bill for the water supplied in the previous month, the Divisional Canal Officer shall transmit it to the water users/persons/firms through special messenger/registered post/fax, latest by the 10th date of the succeeding month. (iv) It shall also be the responsibility of the person/persons/firms receiving water to get the bill collected from the office of the Divisional Canal Officer by the 10th date of every month, and ensure payment of the bill within stipulated period. (v) In case of failure of payment of the bill within stipulated period, the permit issued to them shall automatically be cancelled within a period of 15 days of the due date of payment and water supply to the concerned party shall be stopped. (vi) In case of cancellation of permit, all the sum due to the party, who has received water, shall be payable with penalty as decided by the Department and only after realisation of full amount, his/her/their application for re-issue of permit, if he/she/they desire so, shall qualify for consideration. Form-1 (See Rule 3.3.7(a)) Application for irrigation (Name of Crop)

..... Village Block Water course Outlet No.
.....

1. I (Name in Capital letter) agree to be bound under Section 53(3) of Bihar Irrigation Act 1997 and Rules framed under it and apply for water to be supplied from the above mentioned outlet for (name of crop) from (date) to (date) for my plot containing, holding mentioned below.

2. The approximate area to be irrigated is stated in the schedule following and agree to pay the whole of the water rates on the area in my occupation as found by actual measurement at the rate of Rs. per acre within 15 days of the receipt of the demand parcha. This sum shall be payable independently of my requiring water or not.

3. I agree as far as possible to prevent water supplied being wasted or used in an unauthorised manner.

The following are the boundaries of the holding. -NorthSouthEastWest

Schedule

Name of Cultivator	Detail of crop	Plot No of land to be irrigated	Area in acres	Signature of cultivator	Signature of witness	Remarks
1	2	3	4	5	6	7

DateSignature of ApplicantN.B. - Any small area less than 1/16th acre shall be charged as 1/16 acres. In calculating the water charges fraction of fifty paise and more shall be taken as rupees one and less than fifty paise shall be omitted.Form-2(See Section 57 & Rule-3.7.6.1)Application for supply of water for works other than Irrigation.I/We undersigned, apply for water to be supplied from water course/canal River/Head works as details given below :-Location of outlet

Name	Address of the applicant	Purpose of water supply	Period of water supply	Rate and quantum of water supply	Name of source.
1	2	3	4	5	6

I/We declare that the water supply for the purpose/purposes, mentioned in column 3 of the above table, shall be used only for the purpose prayed for.I/We, further declare that I/We shall pay charges for water received on the basis of rates revised by the State Government from time to time on or before the schedule date as fixed by the Canal Officer.Signature of Applicant(Name)DateForm-3(See Rule 3.3.7 (b)Permit for irrigation of.....Permit no.Applicant's NameNumbers, of Application Form and DateName of village and Block:Area to be irrigatedName of water courseRD.....Outlet NumberPeriod for irrigationWater charges payableDate of payment (Within 15 days of the receipt of Demand)This permit is issued under Section 53(3) of Bihar Irrigation Act, 1997 for the irrigation of the areas mentioned above. It is subject to the provision of all Rules passed under the Act. It is expressly agreed that water is supplied for the sole purpose of irrigating the land mentioned in the application. Water charges shall be charged on the areas in the occupation of the applicant within the holding as ascertained by actual measurement and shall be charged whether water is or is not required.DateSignature of Canal OfficerSealForm-4(See Section-57 & Rule-3.7.6.2)Permit for use of water for the purposes other than irrigation.Application No. and DatePurpose of Water SupplyName of VillageName of BlockName of Canal/Water course/River/Head worksLocation of supplyPeriod of water supplyRate and quantum of water supply.....Date of payment (within fifteen days of the receipt of the bill)This permit is issued under Section 57 of Bihar Irrigation Act 1997 (Bihar Act-11,1988). Water supplied under this permit shall be used only for the purpose for which this permit is issued.Date.....Signature of Canal OfficerSealForm-5(See Rule 3.6.1(a))Application for Lease by Water Users' AssociationDistrict PS Distributary

1. I, as the of the Association, agree to be bound under Rules framed under Bihar Irrigation Act 1997 and apply for water to be supplied through distributary for irrigating the villages mentioned below from 1st April to 31st March every year for the coming five years.

2. After collecting the water-rent from the benefited farmers at the rate of Rs./hectare for kharif, Rs./hectare for Rabi and Rs./hectare for Garma, I, on behalf of committee, agree to deposit the agreed share of water rent to the Government in two instalments, first upto 30th June for Rabi and second upto 31st March of next year for Garma & kharif. This sum shall be payable independently of our requiring water or not.

3. If the water rate is increased by the Government during the lease period, it shall be applicable.

4. % amount of the aforesaid water-rent shall be deposited to the Government and the remaining % shall be used for discharging the responsibilities/duties bestowed upon committee by the Government (as mentioned in the Rules) and proper account of this shall be always maintained which can be verified and audited by the Government. If the committee fails to deposit the required instalment amount by the specified date, the supply of irrigation water shall be stopped to the Association in the coming crop season.

5. Above mentioned terms and conditions shall be binding upon by my successor duly elected/nominated after the expiry of my tenure.

Note : Water rate for irrigation fixed by the Government shall be applicable. Signature of President/Secretary Seal of Association Enclosures : (1) List of villages and area of Irrigated land (2) A copy of registration of Association (3) Certificate of election/nomination of the applicant Details of Area to be irrigated

Name of villages	Revenue Thana No.	Total area of village in Ha.	Area of irrigable land of villages in Ha.	Name and Address of President of Water Users' Association	Signature of the President of Water Users' Association
1	2	3	4	5	6

Form-6(See Rule 3.6.1 (a)Permission of lease to Water Users' AssociationPermission No:

..... DateApplication No.

.....Name of Farmers' Association

.....Name of Mauza/Pargana

.....Area of the Irrigable land

.....Name of the distributary

.....Location of the Head Works

.....Design discharge of Head Works

..... Actual AverageTime of Irrigation 1st April to 31 March

.....Rate of Water rent:

1. Rate of kharif

.....

2. Rate of Rabi

.....

3. Rate of Garma

.....

Date of PaymentUpto 30th June
for Rabi andUpto 31st March of next Year for kharif & Garma.Name of Secretary/President of
AssociationAddress

.....Period of Permission

.....This permission is issued under the
prevalent rules framed under the provisions of the Bihar Irrigation Act, 1997. Water rents for water
supplied for irrigation shall be chargeable every year, even if there is no demand of water during any
particular year.SignatureDivisional Canal Officer.Form-7(See Rule 3.6.1 (b)Memorandum of
Understanding for execution of different activities of WaterManagement by Water Users'
Association such as Operation and Maintenance of Canal, Assessment and Collection of Water rent
of irrigationThis memorandum of understanding (MOU) between Executive Engineer
Division (who will be representative of Governor of Bihar) and Association
(Representative of Farmers/Water Users' of concerned area) is being enforced on (date)
..... with following conditions :-

**1. (a) According to this MOU, the operation of canal, water distribution,
maintenance of canals above outlets and systems below it, assessment and
collection of water rent in the Irrigable Command Area of**

**..... distributary (off-taking from KM of
..... canal), and its sub-distributary, minors, water courses and village
channels off-taking directly, is being handed over to the Association for the
coming five years from the date of signing this MOU.**

But the ownership of irrigation System which includes all irrigation channels, structures, trees, and all the acquired land, etc. shall remain in the possession of the Government of Bihar.(b)A Status report on the actual conditions of the canals of the distribution system, its structures, trees, etc. shall be prepared after conducting a joint survey by the Association and the concerned Executive Engineer/Sub-divisional Officer/Junior Engineer in-charge of Water Resources Department. This status report shall constitute a part of this memorandum of understanding. Complete safety/security and maintenance of these assets shall be the responsibilities of the Association.

2. The Association shall function under the "Bihar Irrigation, Flood Control & Drainage Rules 2003" framed under Bihar Irrigation Act 1997 and shall exercise the powers conferred to it by the aforesaid Acts and Rules.

3. If the Water rate is increased by the Government during the lease period, it shall be applicable.

4. The Association shall deposit% of the total amount of water rent to the Government and keep% of the total amount with itself for discharging its responsibilities/duties.

5. The Association shall deposit the above fixed share amount of the Government in the Treasury through Bank Draft twice in a year within the stipulated time and communicate it to the concerned Canal Officer.

6. The Association shall spend the above fixed share amount to discharge its responsibilities and accounts of expenditure shall be maintained properly which shall be audited as per Rules.

7. Under the provision of Registration Act 1860 the Association shall submit its annual financial balance sheet to the Registrar and a copy of the same shall be sent to Water Resources Department through the concerned Canal Officer.

8. The dispute between the Departmental Officers and the Farmer's Association shall be resolved by a three members Arbitration Committee consisting of One Member each nominated by each party and another one with the concurrence of both the parties.

9. Mate and Seasonal workers shall remain as usual for smooth regulation of canal only during the current crop season and salaries shall be paid by the department for the time being but it will be reimbursed to the department/Government by Water Users' Association after collection of water rent. This amount will be in addition to the aforesaid agreed share amount of% payable to the Government. An affidavit/undertaking to this effect shall be obtained by the Executive Engineer from Water Users' Association before the actual transfer.

10. If the canal system is damaged by natural calamity such as flood etc., the Government shall take appropriate action for the restoration of canal.

11. Others if any (with the consent of both the parties)

Both the parties between whom this memorandum of understanding (MOU) is being enforced agree to work under the "Bihar Irrigation, Flood Management and Drainage Rules 2003" and with the above term and conditions of the MOU. Any change in the conditions shall be made with the mutual consent of both the Parties. The department shall rescind the MOU and take over the management of canal even before the fixed date in case of unavoidable reasons/situations such as unsatisfactory management of canal system, non-compliance of the conditions of the MOU by the Water Users' Association, unsatisfactory maintenance of Account. In the similar manner if the concerned Water Users' Association expresses its desire to quit the work of management of the canal system, the Government/ Department shall take over the management of the canal system. Above mentioned terms and conditions shall be binding upon by my successor duly elected/nominated after the expiry of my tenure.

Signature Secretary.....Water
Users' Association

Signature Executive Engineer.....Division Water
Resources Department, Patna. Bihar.

4. Flood Management Rules.

- 4.1 Protection of Embankment 4.1.1 The Executive Engineer responsible for protection of embankments within his jurisdiction, shall inspect the embankments at regular intervals in normal situation and with the help of Assistant Engineer, Junior Engineer and other staff placed under him, maintain the service road of the embankment so as to keep it in proper condition for movement of inspection and other vehicles engaged in maintenance works, round the year. 4.1.2 A list of vulnerable sites of embankments, giving details of cracks, erosion, rat holes and holes made by other rodents along with their locations shall be prepared. The Executive Engineer shall send it to the concerned subordinate officers with necessary direction. Each Chief Engineer shall make a identity list of vulnerable sites and make it available to the department. The vulnerable sites shall be divided into three categories and special teams to take necessary measures for their protection shall be constituted in the following way so that expeditious action on war footing may be taken to face or contain the flood problem. The concerned officers in charge shall also be duly intimated. (a) Risk

Category "A" :-This category shall include such locations of embankments and structures where the river erosion has started affecting structure toe or slope of the embankment and as a result of which, damage to the structure/embankment and consequent danger is apprehended. Any erosion on sites under this category shall be immediately inspected by the Chief Engineer who, while giving directions for carrying out necessary flood protection works, shall instantly intimate the headquarters. Also, he shall take action to depute there a Special Team "A" to have vigilance all round the clock. The Special Team under this category would consist of an officer of the rank of Superintending Engineer supported by three Executive Engineers and six Assistant Engineers/Junior Engineers. A team of two Assistant Engineers/Junior Engineers headed by an Executive Engineer shall work on such sites in shifts of 8 hours' duration. The flood fighting works shall be carried out under the supervision of Chief Engineer/Superintending Engineer and daily information shall be communicated to the headquarters. In case of the flood fighting works continuing for more than three days, the Team 'A' constituted at the headquarters shall proceed immediately to such sites. (b) Risk Category "B" :-This category shall include such location of embankments and structures where it is felt that though the river is at some distance from the structure/embankment, but the intensity of erosion is such that if not checked immediately it may soon be close to structure/embankment and may endanger the situation. On any site under this category, if the pressure due to river increases, the Superintending Engineer shall immediately inspect the site, issue instructions for flood fighting works as required, and intimate the Chief Engineer and the headquarter immediately. He shall also take action to depute a Special Team 'B' for vigilance of the site all round the clock. The Special Team under this category shall consist of an Officer of the rank of Executive Engineer supported by three Assistant Engineers and six Junior Engineers. A team of two Junior Engineers headed by one Assistant Engineer shall work on such site in shifts of eight hours duration. The flood fighting works shall be carried out under the supervision of Superintending Engineer/Executive Engineer, and daily information shall be communicated to Chief Engineer/Headquarter. In case the flood fighting works on such sites continue for more than three days, the Chief Engineer shall himself inspect the site and undertake the control of the works as required. In the event of the flood fighting works continuing for more than seven days the Team 'B' constituted at the Headquarter shall immediately proceed for the site. (c) Risk Category "C" :-This category includes such sites where though presently the river is at a considerable distance from the structure/embankment but the erosion is continuing and though there appears no danger at present, however, this needs to be checked so that the site may be protected by carrying out ordinary flood fighting works. In case of an increasing pressure due to the river on a vulnerable site under this category, the Executive Engineer shall immediately inspect the site and if feels issuing necessary directions for flood fighting works on a small scale he shall immediately intimate the Superintending Engineer/Chief Engineer/Headquarter. Also, in order to have vigil at the sites a Special Team consisting of three Assistant Engineers and six Junior Engineers so that two Junior Engineers under an Assistant Engineer may be deputed at site in 8 hourly shift. In case of the flood fighting works continuing for more than 2 days, the Superintending Engineer shall immediately inspect the site and take direct control of the flood fighting works under intimation to Chief Engineer/Headquarter. In the event of the flood fighting works continuing for more than five days the Chief Engineer shall inspect the site, take direct control of the flood fighting works under intimation to the headquarter. In case the need arises the Team 'B' constituted at the Chief Engineer level shall be deputed at the site to keep a continuous watch over the flood fighting works. Accordingly, the above three special

teams constituted at the Chief Engineer's Headquarter shall be available for the entire flood season to provide assistance to the Executive Engineers incharge of the embankment in the emergency situations which, as soon as receives instructions from the competent authority, shall proceed to the specific site requiring their emergency services. Each Special Team shall have a jeep exclusively at its disposal so that the member of the Special Team may rush to the work site immediately after receiving the information. Similarly, one each of special Team 'A' and Special Team 'B' shall be constituted at the departmental headquarter which as per the needs and direction of the competent authority shall be sent to the specific site.

4.1.3. All the weak and damaged portions shall be brought to perfect condition in right earnest and these works shall be completed by the 31st of May positively, so that any damage or flood havoc during the rainy season may be avoided.

4.2 Patrolling :

4.2.1 The Chief Engineers concerned with the flood control works shall be required to issue the necessary orders to their subordinate officers to start patrolling right on the onset of monsoon season mentioning therein the constitution of patrolling parties, responsibilities of officers from the level of Junior Engineer up to the Superintending Engineer and the modalities to be adopted by them vividly. The modalities to be followed shall include the details of necessary arrangements to be made for protection of flood control works. Necessary directions shall also be given regarding the procurement of materials, machines, vehicles and labours in the emergency situations, so that there is no confusion or disorder when the need arises. The Chief Engineer shall give special emphasis upon his subordinate officers to make in depth study of the flood patrolling rules and expeditious implementation of the directions issued from time to time so that the flood protection works can be completed smoothly in time.

4.2.2 The concerned officers, as defined in the Flood Patrolling Order issued by the Chief Engineer, shall undertake intensive patrolling for protection of embankments within their jurisdiction, so that the situations caused due to seepage, piping, overtopping and erosion etc. may effectively be faced. The immediate preventive measures shall be taken timely in order to avoid any natural calamity and any type of intensification thereof, so that the sites under threat may be kept safe.

4.2.3 Based on past experiences, the continuing vulnerable sites of different embankments shall be identified. All concerned Chief Engineers of the flood sector shall prepare an updated list of those vulnerable sites and concerned Sub-divisional Officers & District Officers shall be acquainted with the list of vulnerable sites, giving names of rivers and embankments along with the location thereof showing on a map shall be sent to the Chief Engineer, Planning & Monitoring, Sinchai Bhawan, Patna by the 1st of June every year in five copies.

4.2.4 Preventive measures, for protection of all the vulnerable sites as mentioned in the aforesaid clauses shall be completed latest by the 31st May before the onset of monsoon so that the flood situations may be faced firmly and effectively. In case of any confusion, the subordinate officers shall immediately seek direction from the senior officers and accordingly complete the work.

4.2.5 Severely vulnerable sites and important spurs withstanding the fast river current in the floods of the last few years (e.g. Kosi Afflux Bund in Nepal) or any newly constructed ones shall be kept under watch all round the clock. Two staff of Class IV category shall be deputed permanently on each of such vulnerable sites and spur sites, for the period between 1st June to 31st October. These staff shall be provided with a register, in which clear information of the present condition of the river and its effect on the protection works shall be entered by them and the report shall be sent to the supervising official every day. It shall be the responsibility of the supervisory officers to ensure continuous presence of the staff and to keep the higher officers informed accordingly. They shall also verify the entries made in the register at the work site and put their signature along with the date thereon.

4.3 Transmission of Information

:-4.3.1 There shall be a quick exchange of all the information amongst the officers from the Junior Engineer to the Chief Engineer level. Similarly, there shall be a fast communication between the field Chief Engineers and the Central Flood Control Cell, Patna.4.3.2 The flood-communications shall be instantly transmitted by the Superintending Engineer/Executive Engineer through police wireless/departmental wireless/hot line/telephone/special messenger. The Chief Engineer shall utilize the facilities of the nearest police wireless/departmental wireless/fax/hot line/public telephone/special messenger to transmit information regarding the problems emerging due to emergency conditions and acquaint the Secretary/Engineer-in-Chief, Water Resources Department, Patna, in minimum possible time. He shall also submit report giving details of the arrangements made for flood fighting works.4.3.3 All wireless messages shall start as given below:-Status Report.....(Name of embankment.)Name of river.....Name of bank..... (left bank or right bank)Site..... reduce distance.....km. (giving details of R.D. to which the report pertains) Near by village .-.....Name of village) district.....(name of district)Thereafter, the main message shall be written.4.3.4 The Central Flood Forecasting Organization, Patna shall receive, in time information regarding rain and advance information of flood and transmit it to the concerned District Magistrate.4.3.5 The sensitive sites of the embankments shall be provided with wireless sets, so that general public may be warned just after any such information is received.4.3.6 The Assistant Inspector General (Wireless) shall depute police personnel in sufficient number to facilitate transmission of wireless message on a two hourly basis.4.3.7 Arrangements shall be made for additional wireless sets during the flood season so that the additional sets may be used in case of any set going out of order. The Assistant Inspector General (Wireless) shall ensure completing all the necessary formalities, in this regard, by the 15th June.4.3.8 The Chief Engineer shall ensure installation of telephone sets on all the vulnerable sites by the 15th of June by making contacts with the officials of the Post and Telegraph Department. He (Chief Engineer) shall inform the Central Flood Control Cell, Patna, regarding the installation of telephone and wireless sets. The officers engaged in flood fighting works may use the wireless system of the nearest police station and the telegraph system of the nearest Railways.4.3.9 As per the recommendations of the Working Group on Communication for Disaster Management (sent to the Home Secretary and the Director General of Police vide Chief Secretary's UOI No. 5362 dated 22.12.87), the wireless sets in the flood affected areas shall be operational round the clock so that the Central Flood Control Cell, Patna, may receive continuous transmission of information. The Assistant Inspector General (Wireless) shall ensure action in the regard.4.3.10 In case the field officers have to leave the head quarter during the flood period, either for inspection or for other important work, they shall make proper arrangement for discharge of their duties round the clock, with due information to their headquarters. Their place of stay shall also be mentioned therein so that they may be instantly intimated, if need so arises.4.3.11 In spite of installation of wireless sets by Water Resources Department for transmission of information regarding floods, the Assistant Inspector General (Wireless) shall direct the staff attached to Police Wireless Station to provide the wireless facilities to the officers of Water Resources Department for facilitating transmission of information regarding flood. All police wireless set of the State shall transmit the flood message on a priority basis.4.3.12 As per requisition of the Water Resources Department for installation and operation of wireless sets the, Assistant Inspector General (Wireless) shall pay special attention to depute desired operators at specified site with requisite tools & plants and he shall also ensure that all such wireless sets are operative from the 15th June. Assistant Inspector General (Wireless) shall

also ensure that all the equipments are maintained in perfect working condition and, if necessary, repairs are made immediately. The Water Resources Department shall also take care that the departmental wireless sets work without any fault. Repairs of such equipment, if any, shall be completed by the 15th June.

4.4 Control Room :-

4.4.1 The Central Flood Control Cell shall start functioning from 15th June at the Secretariat level in Sinchai Bhawan, which shall function round the clock till the 31st October. These dates, may be shifted backward or forward depending upon any emergent flood situation. The Chief Engineer, Planning & Monitoring, Patna shall have direct control over the Central Flood Control Cell and the Superintending Engineer, Flood Control Planning and Monitoring Circle shall be in full charge of the Cell. He shall have the authority to requisition personnel, vehicle and machinery from other Chief Engineers, Superintending Engineers and Executive Engineers in the flood situation.

4.4.2 Similarly, during this period the Field Flood Control Cells shall also start functioning directly under the Chief Engineers at their headquarters, which shall send all information regarding the flood to the Central Flood Control Cell, Patna.

4.4.3 In case the Superintending Engineer, Executive Engineer and Sub-divisional Officer-in-charge of flood control works consider it necessary, they may set up a Flood Control Cell at their own level after consulting their Chief Engineer. Besides, if the field Chief Engineers consider, it necessary, they may set up a separate Flood Control Cells at the vulnerable sites, so that quick transmission of flood message to the State headquarter is going on.

4.4.4 The guidelines for the Central Flood Control Cell, Patna given at clause 4.10 shall be strictly adhered to. The concerned engineers of the flood control cells, functioning at the field level under Chief Engineer/Superintending Engineer/Executive Engineer, shall prepare guidelines in line with the one prepared for the Central Flood Control Cell.

4.5 Flood-Fighting-Materials :- Necessary steps shall be taken, well in time to collect the flood fighting materials at suitable sites. The concerned Executive Engineers shall furnish their list of requirements in this regard well in advance to their Superintending Engineer, who after thorough examination of the same, shall send it to the Chief Engineer with his recommendations. The Chief Engineer, after through review of the requirements of materials within his jurisdiction, shall issue necessary direction for their receipt & accumulation. He shall send the information of real necessity of flood fighting materials, quantity of materials collected and position of arrangement for balance materials, to Central Flood Control Cell, Patna. The Executive Engineer shall arrange for keeping the actual account of receipt, issue and balance flood fighting material at the storage site so that the checking officer, whenever desires, may check it properly and be satisfied regarding sufficiency of material & resources.

4.6 Weekly Report :- In monsoon period, Chief Engineer shall obtain weekly report, on flood situation, on every Saturday from the Superintending Engineers under his jurisdiction, and on the basis of these reports shall send a consolidated report, in three copies, to Central Flood Control Cell, Patna.

4.6.1 In weekly report, rainfall in the area, trend of the river, gauge readings of different sites, area flooded, loss to engineering works such as National Highway, Railway, telephonic lines etc and other public losses with their location and valuation, shall be recorded. Along with it attempts shall also be made to include in the weekly report the details of losses to the standing crops, cattle and lives, obtaining it from district administration.

4.6.2 If any area is flooded, then a map of entire effected area, showing depth of flood water and flood period, shall be prepared. For this purpose, the flood affected area shall be divided into four classes such as areas having flood water depth up to 30 cm, 60 cm and 120 cm and above. Special precaution shall be taken while preparing the map. The embankment and vulnerable sites, where armed forces are deputed, shall also be shown distinctly on the map.

4.6.3 The Chief Engineer shall send the above

said flood maps and weekly reports to the Central Flood Control Cell, Patna immediately. He shall transmit his critical report related to that through wireless and original copies of these reports and maps shall be sent through special messenger.4.7Assistance to be given by district administration during flood period.4.7.1The problems, like cutting of embankment by villagers, shall be dealt efficiently and effectively. Though such incidence occur rarely, yet in order to such incidence may not occur necessary step shall be taken to depute armed police force for intensive patrolling. For the sites where the Chief Engineer/Superintending Engineer/Executive Engineer may thinks proper for deputation of patrolling party, he shall send requisition to the concerned Sub divisional Officer and District Magistrate, well in time, so that patrolling work can be done at proper time effectively. District Magistrate and Sub divisional Officer shall readily extend all possible help for deputing armed police force. During the course of upkeep and protective measures of the embankment, if any law and order problem arises, the District Officer shall take immediate action accordingly. In the field, district administration and technical officer shall remain in constant touch so that any emergency situation may be tackled effectively.4.7.2The District Magistrate also shall remain vigilant to face any situation and for this he himself shall directly obtain information regarding unsafe and vulnerable sites and shall always keep armed forces in sufficient numbers ready for being sent to vulnerable sites for patrolling on short notice and shall see that there is no shortage of force at the time of need. The District Magistrate along with related technical officers shall undertake frequent inspection of the sensitive sites and ensure required administrative measures regarding problems related to safety of embankments. Requisition made for deputation of armed police force by the Officers from the rank of Executive Engineer to Chief Engineer to the District Magistrate shall be immediately acted upon on priority basis. The Superintendent of Police shall also be taken into confidence in this regard so that the assessment of the required armed forces to control the law and order and for patrolling may be made jointly.4.7.3The District Magistrate shall ensure that the embankment is free from any encroachment in its entire stretch. All encroachments shall be removed by the month of April so that the Executive Engineer may complete all the necessary renovation work by the 15th June. It shall be done on priority basis.4.8Patrolling work and security arrangement for vigilance during floods.4.8.1The Chief Secretary, Government of Bihar through departmental letter No. Flood (Mo) Irr-Vidhi-37/88-2288 dated 2.9.88 had given direction to set up a committee in every district for making arrangement for deputation of armed forces for patrolling and providing security to embankments and their vulnerable sites. This order was circulated to each District Magistrate/Superintendent of Police in flood season of 1998. A copy of the same is appended as appendix 'A'. This Committee shall be constituted consisting of the following members :-

- | | |
|--|----------|
| 1. District Magistrate - | Chairman |
| 2. Superintendent of Police - | Member |
| 3. Executive Engineer (concerned with Flood control works) - | Member |
| 4. Concerned District Level Officer of the Relief Department - | Member |

Functions of the Committee have been mentioned in the above said letter of the Chief Secretary. The Committee shall accordingly work every year so that there is no delay in removing this unauthorised encroachment on the embankment and in action for its security measure.4.8.2Inspection vehicles being used in flood related works shall not be requisitioned by the District Administration for law

and order related works.4.8.3In emergency situations the District Magistrate shall take expeditious action towards making available the labour and material to emergency points and also make available Trucks, Tractors etc. to the Executive Engineers of the Water Resources Department.4.8.4It has been found that the execution of the schemes, sanctioned by field engineers, are often hindered by anti social elements which hampers the progress of the work. It shall be personal responsibility of the District Magistrate to provide security to the field technical officers, in such situation, and remove the hindrances promptly so that the progress of the work is maintained and he shall also provide necessary co-operation as demanded by the special teams for checking the quality and progress of the ongoing flood protection works.4.8.5Whenever the security of any embankment is under serious threat, then the Chief Engineer or his subordinate officers up to Executive Engineer level shall immediately give information of the situation to the District Magistrate and also to the Central Flood Control Cell, Patna mentioning therein the number of the villages to be affected by the probable breach. Thereafter it shall be the duty of the District Magistrate to issue flood warning to those areas immediately and also taken necessary action for arranging relief to the people likely be affected by the probable flood and for shifting them to safer places.4.8.6As required the Relief Commissioner shall handle the work of relief and shifting to safer places.4.8.7Field Officers in-charge of flood protection work and law and order also shall make all possible attempts to seek cooperation from the public in providing security to the embankment and patrolling works. Village panchayats, situated near the embankments, may be helpful to a great extent in patrolling work and in giving information about probable breach. The District Magistrate shall convene an emergent meeting of Mukhias of such panchayats and discuss the role of public cooperation during floods. He shall also requisition the services of village volunteers and Chowkidars, so that their help may be available for collection of information and patrolling of embankments when needed.4.8.8In the event of excessive floods, when the situation become out of control of the Civil Administration, the assistance from army shall be requisitioned. Such assistance shall be sought by the local Civil Administration and the technical officers only after due consultation with the State Home Department.4.9Flood Protection Works :-4.9.1Every year the field officers shall make a list of the flood protection works to be done before the next flood season on the basis of the river behaviour in the antecedent flood period, experience gained during the period and in light of the receded water level and present position of the river in respect of the different rivers of the state, specially those of North Bihar in the pre-flood period.4.9.2Except the Kosi embankment and the Pipra-Piprasi embankment of Gandak river, every Chief Engineer shall constitute an "Anti Erosion Committee" for flood prone areas of his jurisdiction which shall inspect the affected sites and advise the Chief Engineer in preparation of flood protection schemes. This Committee shall consist of the following members :-

1. Concerned Chief Engineer.

2. Adjacent another Chief Engineer

3. One Superintending Engineer from headquarter.

Senior Chief Engineer shall be the Chair-Person of the Committee.4.9.3On the basis of recommendation of the Anti Erosion Committee, the field officer shall prepare the estimate and put

up before State Technical Advisory Committee. This committee shall be constituted consisting of the following members:-

- | | |
|---|------------------|
| 1. Chief Engineer, Central Design Organisation, Water Resources Department
Patna | Chairman |
| 2. Chairman Ganga Flood Control Commission, Patna | Member |
| 3. Chief Engineer, W.R.D. Darbhanga | Member |
| 4. Chief Engineer, W.R.D. Siwan | Member |
| 5. Chief Engineer, W.R.D. Valmikinagar | Member |
| 6. Chief Engineer, W.R.D. Purnia | Member |
| 7. Chief Engineer, W.R.D. Samastipur | Member |
| 8. Chief Engineer, W.R.D. Muzaffarpur | Member |
| 9. Chief Engineer, Hydrology & Project Planning, Patna | Member |
| 10. Chief Engineer, Minor Irrigation, Patna | Member |
| 11. Chief Engineer, Public Works Department, Patna | Member |
| 12. Director, Agriculture Department, Patna | Member |
| 13. Chief Forest Conservator, P.O.-Hinoo, Ranchi, | Member |
| 14. Member (River Management) CWC-R.K. Puram, New Delhi | Member |
| 15. Chief Engineer (Bridges), N.E. Railway, Gorakhpur, U.P. | Member |
| 16. Chief Engineer, Eastern Railway, 17, Netaji Subhash Road, Calcutta-700 001 | Member |
| 17. Chief Engineer, (Bridges) N.E.F. Railway, Maligaon, Gauhati, Assam. | Member |
| 18. Chief Engineer, Water Resources Department, Patna | Member |
| 19. Chief Engineer, (Research), Water Resources Department, Khagaul, Patna. | Member |
| 20. Superintending Engineer, Flood Control Planning & Monitoring Circle,
Patna | Member |
| 21. Superintending Engineer, Flood Control Design Circle, Patna | Member-Secretary |

4.9.4 For each embankment of the Kosi river and Pipra-Piprasi embankment of Gandak river there shall be two separate Technical Advisory Sub-Committee which shall after inspecting the sites give their recommendation to the respective field Chief Engineers. These Sub-Committees shall be constituted consisting of following as members :-

- | | |
|--|------------------|
| 1. Chief Engineer, Central Design Organisation, W.R.D Bihar | Chairman |
| 2. One nominated officer from Ganga Flood Control Commission | Member |
| 3. Chief Engineer, Planning & Monitoring, Water Resources Department | Member |
| 4. Chief Engineer, Water Resources Department, Incharge
Kosi Embankment/Gandak Pipra Piprasi Embankment | Member-Secretary |

4.9.5 During the site inspection of the Sub-Committees as described in the preceding paras, the field officers are expected to furnish the following papers and data to the Sub-Committee :-

1. Regime plan of the river wherein location of erosion of previous years are marked

2. Probing chart of the site.

3. Details of flood protection work executed in the previous years and their outcome.

4. Details of flood fighting works executed during the previous years.

5. Discharge data and Gauge readings of the nearest gauge stations.

6. Details of works and its estimated cost as proposed by the Field Officers.

7. Any other related information, if any, or the one which the Subcommittee desires.

4.9.6 On the basis of the recommendations of the Technical Advisory Sub-Committee the concerned field officers shall prepare the schemes with estimated cost for Kosi embankment and Pipra-Piprasi embankment of Gandak and submit before the Kosi/Gandak High Level Committee, of which the Chairman/Member shall be the following :-

Kosi High Level
Committee :-

1.	Chairman Ganga Flood Control Commission, Patna	Chairman
2.	Director, Research Institute, Pune or its representative,	Member
3.	Member (Flood) Central Water Commission, New Delhi or his representative	Member
4.	Engineer-in-Chief (North), Water Resources Department, Bihar	Member
5.	Chief Engineer, Water Resources Department Darbhanga	Member
6.	Chief Engineer (Research) W.R.D., Khagaul	Member
7.	Chief Engineer, Hydrology & Project Planning, W.R.D. Patna	Member
8.	Director, Eastern Region, Water Resources Department, HMGN, Biratnagar	Member
9.	Deputy Director, Central Water Resources Department HMGN, Kathmandu	Member
10.	Chief Engineer, Water Resources Department Birpur, Bihar	Member-Secretary

Gandak High Level Committee.

1.	Chairman, Ganga Flood Control Commission, Patna	Member
2.	Engineer-in-Chief (North, Water Resources Department Government, of Bihar, Patna	Member
3.	Engineer-in-Chief, D & R Irrigation Department, Government of U.P. (Canal Colony Lucknow-226001)	Member
4.	Director, C.W.P.R.S., Khadakwasla, Pune-411 024	Member
5.	Chief Engineer (Research), Khagaul, Patna	Member
6.	Director, I.R.I., Government, of U.P. Roorkee	Member
7.	Director, Ganga Flood Control Commission, Patna	Member-Secretary

4.9.7 Kosi/Gandak High Level Committee shall give its recommendations after inspecting the different vulnerable sites Kosi/Gandak Pipra-Piprasi embankments and the field officers shall prepare the project estimates on the basis of recommendation of Committee and put up before the Departmental Scheme Review Committee. 4.9.8 In order to finalise the shape and size of the flood protection works for most vulnerable and very important sites, the Department may constitute an Expert Committee of the retired Engineer-in-Chief/Chief Engineers and avail their services. These Committees shall give its recommendations after visiting such sites and the field officers shall submit the project estimate, based on its recommendations, to the State Technical Advisory Committee. 4.9.9 The Technical Advisory Committee shall consist of officers from Railways Department, Forest Department and Agriculture Department in addition to the officers of connected Departments to Water Resources Department; after in depth study of the projects, submitted by Fields Officer and its impact on structures and related areas, shall give its recommendation. The Field Officers shall submit again the revised schemes based on the above recommendations to the Departmental Scheme Review Committee. The Departmental Scheme Review Committee shall be constituted consisting of the following :-

1.	Engineer-in-Chief (Flood Sector), W.R.D., Bihar Patna.	Chairman
2.	One member from Ganga Flood Control Commission, Patna (To be nominated by GFCC.)	Member
3.	Chief Engineer, Planning & Monitoring, W.R.D., Patna	Member
4.	Chief Engineer, IRI, Khagaul, Patna	Member
5.	Chief Engineer, Central Design Organization, W.R.D., Patna-cum-Chairman State Technical Advisory Committee	Member

4.9.10 The Scheme Review Committee shall prioritise and select the most essential schemes to be taken up within the fund available, amongst the schemes recommended by the Technical Advisory Committee/High Level Committees. While scrutinizing and selecting the schemes, the following priorities shall be kept in mind:- Priority 1 : Protection of embankments and retired embankment shall be given priority over other erosion sites. Priority 2 : The Schemes for the protection of big industrial units, the National Highways, State Highways and other big towns shall be first taken up under the sub-head - Town and Village Protection Works. It is only with the remaining funds that the schemes for protection of old thickly populated settlements shall be taken up. Priority 3 : For want of fund, neither the protection works of culturable land along the rivers nor any protection

works for diara area shall be taken up. The Departmental Scheme Review Committee shall recommend schemes on the basis of above priorities, keeping in mind the technical viability and the funds made available by the Government and may make some changes in the scope of works according to the needs. 4.9.11 The Department shall prepare an Agenda Note on the basis of schemes selected by Scheme Review Committee wherein the proposed expenditure on establishment of the flood sector shall also be included. The Agenda Note shall be put up before the Bihar State Flood Control Board by the Department. The Board shall be constituted consisting the following members :-

1. Chief Minister, Bihar.	Chairman
2. Finance Minister, Bihar	Member
3. Minister of Water Resources Bihar.	Member
4. Planning Minister, Bihar	Member
5. Revenue and Land Reform Minister, Bihar	Member
6. Chief Secretary, Bihar	Member
7. Finance Commissioner, Bihar	Member
8. Development Commissioner, Bihar	Member
9. Engineer-in-Chief (North)	Member
10. Chairman, Ganga Flood Control Commission, Patna	Member
11. Chief Engineer, Eastern Railway, Calcutta	Member
12. Chief Engineer, North Eastern Railway, Gorakhpur	Member
13. Commissioner & Secretary, Water Resources Department, Bihar	Member-Secretary

4.9.12 If clear indication of fund available for the flood sector is received before the meeting of 'Bihar State Flood Control Board' then the Departmental Scheme Review Committee shall select the schemes keeping in view the technical and financial position and put up the scheme before the Flood Control Board for its approval. If clear indication of fund is not received then on priority basis two to three list of schemes shall be prepared in which one list shall be of first priority schemes based on the amount made available in previous year and other one or two lists of the schemes of second and third priority. 4.9.13 Normally Bihar State Flood Control Board, keeping in mind the available working period, shall give approval to those schemes in the following two ways: (i) If the working period is available, then Board shall approve the scheme with a direction to obtain approval of the Council of Ministers through Scheme Empowered Committee. In such condition, progress memorandum of the schemes approved by the Board shall be prepared and approval of the Departmental Minister shall be obtained and put up to Scheme Empowered Committee whose Chairman/Member shall be as following :-

1. Development Commissioner, Bihar	Chairman
2. Commissioner & Secretary/Secretary, Finance Department and in his absence Addl. Finance Commissioner	Member
3. Commissioner and Secretary of Administrative Department of the concerned Project	Member
4. Departmental Head of the concerned Project.	Member
5. Commissioner & Secretary/Secretary of Planning & Development Department Co-ordinator	Member

The approval of the Scheme Empowered Committee shall again be obtained in view of availability of fund. As soon as approval is obtained the memorandum for Council of Ministers shall be prepared and placed before Cabinet after approval of Departmental Minister. After the approval of the project by the Council of Minister the department shall issue 'Administrative Approval'. After obtaining administrative approval the works shall be started after inviting tender under short term notice/normal notice according to the availability of time.(ii)If the working time is less, the Board while giving approval to the schemes shall give directive to issue work order to start the work in anticipation of administrative approval and approval of the Council of Ministers through Scheme Empowered Committee.In this situation "work order" may be issued by the department in anticipation of administrative approval. In the light of this order, field officers shall invite tender by issuing short time tender notice and get the work executed.In the meantime action shall be initiated as per procedure mentioned above to accord administrative approval after getting approval of the Council of Ministers through Scheme Empowered Committee.

4.9.14All efforts shall be made to complete all schemes before 31st May in any circumstances. Due to some unavoidable reason if one is compelled to execute certain schemes till 30th June or up to 7th July, in that case only those works shall be undertaken which are above the river water level.

4.9.15If needed department may change the form and constitution of any or all the committees/sub-committees related to flood.

4.10Guidelines for Central Flood Control Cell, Patna :-

4.10.1General :-Central Flood Control Cell, Patna shall be in-charge of collection of all information relating to flood and communicate all the necessary directive, given by Engineer-in-Chief to all the concerned officers of Water Resources Department and District Administration. This cell shall function from 15th June to 31st October. This period can be shortened or extended according to the flood emergency.

4.10.2Central Flood Control Cell, shall be situated in Sinchai Bhawan, Patna.

4.10.3Functions of Central Flood Control Cell, Patna :-(i)To keep records of river gauge, rainfall and hydrological data obtained from field officer and Flood Forecasting Division, Government of India, Patna.(ii)To transmit the flood data received from different sources and to send warning message and directive to take necessary measures to overcome the flood emergency in case the situation turns grave.(iii)To issue Flood warning to concerned Engineering Officers and Civil Authorities when the river gauge reading is one metre above danger level.(iv)To compile flood data received from different sources.(v)To be in close contact with all concerned officers related to flood problems.(vi)To make available flood bulletin to Radio Station and Public Relation Department, Bihar as needed from time to time.(vii)To make available Flood Report to different department of Government of Bihar.

4.10.4Management of Cell :-Central Flood Control Cell, Patna shall be managed by the officers of WaterResources Department. Superintending Engineer, Flood Control Planning and Monitoring Circle, Patna, shall be responsible for management and functioning of the cell. The cell shall be under the direct control of the Chief Engineer, Planning and Monitoring, Patna. The Engineer-in-Chief (North) of W.R.D. shall supervise the functioning of the cell from time to time and shall ensure the smooth functioning of work at the field level.Central Flood Control Cell shall work in three shifts i.e. from 6 A.M. to 2 P.M., from 2.00 P.M. to 10.00 P.M. and 10.00 RM. to 6.00 A.M.In addition to the above shifts there shall be a general shift which shall work from 10.00 A.M. to 6.00 P.M. and which will function on all week days except the Sunday. The officers/staff of the general shift may also be called upon to work on Sunday in case of need. Other shifts shall function without any break even on Sundays and other holidays. The officers/staff engaged in the work of the Central Flood Control Cell will not normally be allowed any leave unless there is some personal emergency. Leave Reserves shall also be provided

in the Cell. Following officers and staffs shall work in the above three shifts :-

- | | |
|--|---|
| i. Executive Engineer | 1 |
| ii. Assistant Engineer | 2 |
| iii. Typist | 2 |
| iv. Peon cum Dak Runner (Post deliverer) | 3 |
| v. Driver | 1 |

Note: The following additional staff shall be working in the shift starting from 2.00 P.M. to 10.00 PM

- | | |
|-------------------------------|--------|
| 1. Assistant Engineer | 2 |
| 2. Office Peon cum Dak Runner | 3 |
| 3. Typist | 2 nos. |

Note: The following officers & staffs shall work in the general shift (10.00 A.M. to 6.00 P.M.)

- | | |
|--------------------------------------|--|
| 1. Superintending Engineer | 1 (over all in-charge) |
| 2. Executive Engineer | 2 (In-charge operation and disbursement) |
| 3. Assistant Engineer | 5 |
| 4. Junior Engineer | 4 |
| 5. Typist | 3 |
| 6. Steno-Typist | 1 |
| 7. Section Officer/Senior Assistant. | 4 |
| 8. Assistant | 5 |
| 9. Accounts Clerk | 4 |
| 10. Diary Clerk | 1 |
| 11. Draftsman | 3 |
| 12. Photo-copier operator | 1 (in pay scale of Daftary) |
| 1. Peon-cum-messenger. | 16 (should know cycling) |
| 14. Driver | 2 |

(Note. - Officers and staffs shall be adjusted by the Superintending Engineer in-charge of the Central Flood Control Cell as the per their availability and requirement.)

4.10.5 Tools & Plants :- (a) The Cell shall be equipped with three telephones. (b) There shall be sufficient provision for wireless sets. (c) The Cell shall have sufficient no. of Jeeps and Jeep Drivers. Provision of 6 numbers of Bicycle shall also be made for the Cell. (d) For emergency lighting the Cell shall be equipped with generating sets, petromax, torch, candle, match boxes besides umbrella, raincoats etc. (e) The cell shall also be equipped with other tools and equipment considered necessary to enhance its efficiency.

4.10.6 Maintenance of Records :- The following registers shall be maintained in the Central Flood Control Cell:- (a) Duty Register In this register the presence of working staff shall be marked by working staff which will be filled up in following proforma.

SI. No.	Date	Shift No.	Name of staff present on duty	Signature of the staff present on duty	Remarks
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Date	Time	Message received	Source	Message transmitted	To whom message transmitted	Time of transmission	Remarks
1	2	3	4	5	6	7	8

SI. No.	Date	Name of Site	Danger level	Gauge Reading	Source of information	Remarks
1	2	3	4	5	6	7

Date	Rainfall in mm.	Name of station	Remarks
1	2	3	4

Date	District	Name of village	Affected area	Affected crop Area (in acre)	Value of the damaged crop (in Rs.)	Nos. of damaged houses	Value of the damaged houses	Loss of life & property	Loss of cattle	Loss of the public utilities.
1	2	3	4	5	6	7	8	9	10	11

Date	Directive	Given by whom	Nature of compliance	Remarks
1	2	3	4	5

Date	Name of newspaper	Cuttings
1	2	3

(h)The details of breaches/cutting of embankment and canals shall be entered in the register in the following proforma :-Register of breaches/cutting in canal/embankment

SI. No.	Name of the District	Name of the canal/ embankment	Place of breach/ cutting	Date of breach/ cutting	Discharge from breach/ cutting	Date of discharge
1	2	3	4	5	6	7
<div> <div>Date of closure of breach/ cutting</div> <div>Affected area</div> <div>Loss from breach/ cutting (Rs. in lakh)</div> <div>Total expenditure on repair (Rs. in lakh)</div> <div>Breached or cut</div> <div>Remarks</div> </div>						
8		9	10	11	12	13

(i) Dak-Register :-Dak Register shall be maintained in Cell in the following proforma :-Dak Register

SI. No.	Date	Sent to whom	Order contained the letter	Name of Messenger	Signature & Date of receipt	Remarks
1	2	3	4	5	6	7

(j)Trunk Calls/STD Register :-Trunk Call/STD Register shall be maintained in the Cell in the following proforma.Trunk Calls/STD Register

SI. No.	Date	Person calling on telephone	For where the call was made	Time & type of call	Call materialised or not	Signature of the person recording the call	Remarks
1	2	3	4	5	6	7	8

4.10.7 The information received shall be entered in different registers and shall be incorporated in the short flood bulletins. The Central Flood Control Cell shall issue daily bulletins during the flood emergency period. The Cell shall prepare a list of persons and offices to whom the short flood bulletins are to be sent. In case of apprehension of breach at any site, an additional flood bulletins shall be published giving details of area likely to be submerged, depth of water thereon and magnitude of flood.

4.10.8 Maps and Charts :- Maps and charts of areas affected by past floods shall be kept in the Cell. Maps and charts shall be updated and the up to date position of the river shall be displayed in the Central Flood Control Cell. Rainfall charts shall also be maintained & displayed in the Cell for checking. Maps of embankments, and flood-affected areas, in case of breaches shall be prepared & kept in the Cell.

4.10.9 Arrangements for flood fighting. - Central Flood Control Cell shall maintain complete information regarding arrangement made for flood fighting works. These information shall contain embankment wise details of vulnerable points, materials stored at the above sites and statement regarding the details of Telephones/wireless sets in the area.

4.10.10 Flood-Report. - Flood Report shall have the following sections.

1. Rainfall

2. Gauge reading of rivers at different sites.

3. Tendency of the river

4. Name of the breach sites, cause of breaches, steps taken to check the flood water and closer of the breaches

5. Losses and other matter related to it.

4.10.11Others. - 1. The work of scientific collection and compilation of data, related to losses from flood, shall be got done by Superintending Engineer, Flood Control Planning & Monitoring Circle, Patna and its annual report shall be furnished to the Water Resources Department.

2. Post facto evaluation of the flood control embankment shall be done systematically, so that on its basis, the definite requirement of fund and guidelines may be formulated for the flood sector.

3. For the maintenance of executed flood control schemes a minimum of 10% of the annual capital outlay fixed for the flood sector shall be fixed. Compilation of basic data, related to flood management and drainage schemes of each river and nature their of, shall be done by the field Chief Engineer within jurisdiction of which that river lies, through their sub-ordinates and based thereon furnish the annual report to the headquarter.

4. Five per cent of fund fixed under Jawahar Rojgar Yojna and Assured Employment Scheme shall be earmarked for flood control works of the rural area. In this case it should be ensured that 60 to 65% expenditure is incurred on labour component.

5. Drainage Rules. - 5.1 Notice regarding prohibition of obstructions.

5.1.1Whenever if it appears to the State Government that injury to the public health, public convenience or to any irrigation works or to any irrigable land has arisen or may arise due to encroachment of any river, stream or natural drainage course or due to any other reason then (the State Government or officer authorised by the Government) may by exercising power conferred under Section 13 of Bihar Irrigation Act, 1997 (Bihar Act 11, 1998) and publishing notification in State Gazette, declare the above said river, stream or natural drainage course or its any section as a

"Drainage Works" and shall prohibit its encroachment.5.1.2The Officer authorised by the State Government (Divisional Canal Officer), after notification as mentioned in sub-para 5.1.1, shall by exercising powers conferred under Section 14 of Bihar Irrigation Act, 1997, issue an order to the person causing such obstruction in the notified 'drainage works' to remove or modify the same within a fixed time (15 days).5.1.3If, within the time fixed in the order, the person having control over obstruction does not remove those obstructions then the Divisional Canal Officer by exercising powers conferred under Section 15 of Bihar Irrigation Act, 1997, shall cause the encroachment to be removed or modified and the expense incurred on this work shall be recovered from person concerned.5.2Procedure for construction of drainage works.5.2.1Whenever it appears to the State Government that construction in any drainage works is necessary in the interest of public health or for improvement of any land, or for proper cultivation or for protection of land from water logging and injurious salt or from erosion by river then the Officer empowered by the Government shall, announce the construction of that drainage works by Government Notification.5.2.2Immediately after the publication of the above said notification, it will be the duty of Divisional Canal Officer or other empowered officer to display the general notice, pertaining to Government's decision for construction of drainage works at convenient places for the information of the general public. At least after three months of the publication of notification mentioned in sub-para 5.2.1 the Divisional Canal Officer or the Officer empowered for construction can start the construction work.5.3Planning and implementation of drainage schemes :-5.3.1After the date mentioned in notification issued under Section 16 of Bihar Irrigation Act, 1997, (mentioned in sub-para 5.2.1 of Rules), the Officer empowered by the State Government (Divisional Canal Officer or Executive Engineer-in-charge drainage) shall get the drainage scheme prepared. For such work he shall, with the co-operation of his sub-ordinates, compile all the data related to the scheme, do field surveys, study the natural and man made causes of the problem and while analysing the short and long term remedial measures he shall keep economy into consideration. In preparing schemes, the Divisional Canal Officers shall include the cost needed for maintenance (preventive & curative) of the drainage scheme. In the successive years after completion of the construction of the work he shall ensure the maintenance of the work.5.3.2The Divisional Canal Officer or any other officer empowered by State Government can act for implementing the scheme by exercising any one or all the powers conferred under Section 17 of Bihar Irrigation Act, 1997.5.4Maintenance of Drainage System :-Preventive maintenance scheme shall be prepared immediately after construction of drainage system. Following works shall be included under this scheme :-(i)Spoil bank, constructed on the bank of drainage channel shall be maintained in stable shape. Its slope shall be turfed and these turfs shall be maintained by use of fertilisers and pesticides normally in two years or in less period if needed.(ii)Longitudinal section of each drain shall be taken and drawn in between October and February after rains each year and these shall be preserved in the office of Executive Engineer, Superintending Engineer and Chief Engineer.5.4.2Executive Engineer himself shall be responsible for following works :-(i)To make inspection of all the structure in the drainage system and cleaning of obstruction & weeds therein, if any, after every monsoon period.(ii)Thorough inspection of all the structure after each rainy season, to make rectification, if any, of damages to the structures, including its foundation, arranging spot clearing of all shallow drains every year before ensuing monsoon, as per rules, and to take action for complete cleaning of the drains at an interval of five to ten years.(iii)To keep all the channels free from weeds as far as possible.5.4.3. Curative maintenance plan :-Engineer-in-charge of drainage system shall inspect the bed, banks & structures of the drains (natural or man made) after each

heavy rains and shall arrange for its immediate repair as per necessity.

6. Repeal and Saving.

- 6.1. On the commencement of these Rules, all Rules framed under the Acts repealed vide Section 116 of Bihar Irrigation Act, 1997 (Bihar Act-11,1998), shall be deemed to be repealed hereby. 6.2 Provided that such repeal shall not affect :-(a) anything duly done or action taken under the repealed Rules; or (b) any right, obligation, or liability acquired, accrued or incurred under any rules so repealed; or (c) any penalty, forfeiture or punishment in respect of any offence committed against any rules so repealed. 6.3 Notwithstanding such repeal anything done or any action taken in exercise of any power conferred by or under the said rules shall be deemed to have been done or taken in exercise of the powers conferred by or under this Rules, as if this Rule was enforced on the day on which such thing or action was done or taken.