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A : Planning

Introduction

Irrigation is a "State Subject". But for the financial aid, however, the State Governments depend on the Central Government. And, hence, they have to get their irrigation development plans sanctioned from the Central Government. Every major and medium irrigation project is planned and prepared by the State Government. It is then sent to Central Government for sanction, generally known as "Clearance". The, cleared project is included in Five-Year Plans by the Planning Commission.

Thus, this process of planning is carried on in two different stages. It is, therefore, proposed in this chapter to study this process with a reference to the functions of the machinaries established both at the Central and State Government levels.

1) Planning for Irrigation at Central Level

There is a Three-Tier System at Central level for planning developmental activities in the field of irrigation. The system is as follows:

The Central Ministry of Irrigation and Power

It is the first tier in this system, and is the highest agency which lays down policy guidelines and is
empowered to look after its successful implementation. It should be noted that the Ministry does not plan itself for any particular project. It receives the projects from the State Governments for their inclusion in the Five Year Plans. These projects are properly scrutinized by this Central Ministry and are then forwarded to the Planning Commission for further action.

The Central Water and Power Commission

This is an agency attached to the Central Ministry of Irrigation and Power. It is a second tier in the system. It scrutinizes the plans and estimates of the projects received from the Central Ministry. The Commission also undertakes the construction of projects if required. It is well equipped with design and other necessary divisions.

The Planning Commission

This is the highest organ engaged in the preparation of plans for the country as a whole. This is the third tier in the system and once this agency includes the projects in the plan, the finances are released by the Central Government and the State Governments carry out the construction works.

The Commission has Irrigation and Power Division for major and medium irrigation works and plans for minor works are looked after in the Agricultural Division.
2) **State Level Planning for Irrigation**

All major and medium projects are planned at the State level. Then it is forwarded to the Central Government. Naturally, the State Government has two-fold responsibilities, viz. (i) assessment of water resources and undertaking general planning according to the guidelines given by the Central Ministry of Irrigation and Power and then (ii) to prepare plans and estimates for every project and obtain clearance from the Central Water and Power Commission. For carrying out such responsibilities, following agencies are helping the Government of Maharashtra.

1) **Water Resources Investigation Circle**

It has been observed that physical features and soil-climate conditions widely differ from one river basin to another in the State. It means that while planning for maximum utilization of available water resources, peculiar conditions existing, in each river basin be given due weightage. And, hence, planning in one river basin widely differs from another. It is noteworthy that in Maharashtra State, "Master-Plans" have been prepared on basin-wide basis, by this circle for all major rivers including Konkan areas. These master plans aim at systematically achieving maximum utilization of available water potential.
This circle has been established in 1957 with its head-quarters at Poona and a Superintending Engineer as its head. Since its establishment all its activities have been clustered round the main aim of preparation of master-plans for each river basin. It is the highest technical planning organization of the State.

ii) Irrigation Projects Investigation Circles

The construction of projects is the highly technical and complicated job. It requires detailed surveys and investigations for individual projects proposed to be undertaken. The "Irrigation Projects Investigation Circle", performs these functions. In this connection Table No.I is self explanatory.

There are three such circles with their headquarters at Poona, Nagpur and Aurangabad. Each circle has been headed by the Superintending Engineer.

iii) Central Designs Organization

This is the third important organization responsible for planning of irrigation projects in the State.

Aims and Objectives of the Organization

The organization has been specially designed to carry out the work of the detailed planning and design of major and medium irrigation projects estimated to cost
Table: Investigation, Survey and Preparation of Projects of Schemes in the Master Plan (Number)

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Preliminary Notes

- Performance Budget 1971-72.
- Department of Irrigation and Power, Government of Maharashtra.
MORE THAN ONE CRORE OF RUPEES. It is held responsible to prepare the designs of the projects and has to see that the work is strictly carried out according to the time-schedule already fixed. This time restriction is quite essential for the orderly progress in the constructional activities.

The Organization has accumulated a vast expertise in the designs of various component parts of the major and medium projects. This expertise is made available to those who are working in the Department. And, therefore, the responsibility to train the technical staff of the Department has also been placed on it.

The construction of irrigation projects is a highly complicated work and requires guidance by the expert authority to ensure proper control over the quality of work under construction. The organization has been asked to take up the responsibility of quality control over the irrigation projects under execution.

A Brief Review of the Process of Planning Irrigation Projects in Maharashtra State

The Water Resources Investigation Circle, Poona, is responsible for the preparation of Master Plan on basin-wide basis, survey, investigation and preparation of irrigation projects is being looked after by the
Irrigation Projects Circles. These Circles are assisted by Central Designs Organization for designing of schemes and Irrigation Research and Development Division for soil survey. The activities are co-ordinated at the State level by the State Ministry of Irrigation and Power which also works as a liaison agency between the State Government and Central Government.

The Water Resources Investigation Circle, has prepared Master Plans on basin-wide basis and the Irrigation Projects Investigation Circles have prepared schemes to be taken up during Fifth Plan period. Thus, planning and preparation of schemes have already taken place well in advance. This indicates efficient working.

Conclusions

From the description of functions outlined above, the following conclusions can be drawn:

i) Co-ordination in Planning

Though, both the Central and State Governments are engaged in different aspects of planning, there is a perfect co-ordination and linking of their activities.

ii) Preparation of a Master-Plan: a Significant Development

Master Plans for all major river basins have been prepared. It is certainly a significant achievement.
It has helped in assessing water potential available for utilization in the State.

iii) Planning Medium and Minor Works in the Vicinity of Major Works

In any river basin only few major works can be planned and executed. Such works can hardly bring the entire area under irrigation in the river basin that is planned to be developed and can hardly maximise the use of water potential available for utilization. It means that major irrigation works do not offer complete solution to the problem of development of irrigation in any particular river basin.

And, hence, it can be suggested that plans for medium and minor irrigation projects should be simultaneously prepared with plans for major irrigation works. All suitable sites be developed and all water resources available be put to maximum use by developing medium and minor works in the vicinity of major works.

iv) Plan the Projects with Lower Dependability Water Available with Different Dependabilities

The quantity of water that would be available for the utilization varies according to variation in dependabilities.

At present, projects are planned at 75 per cent dependability. Consequently, less amount of water is
available for utilization. Since, there is a continuous increase in the demand for water, it would be imperative to harness more and more water resources. And, therefore, the principle of lower dependability by accepted. It would increase the cost of construction. But it would be counter balanced by economics inherent in large scale construction and operation of schemes.

v) Delayed Clearances of Irrigation Projects

According to the procedure laid sown, the major schemes need to be cleared by the Central Water and Power Commission before these are to be included in the plans. But it has been observed that such clearance is very much delayed. Consequently, estimates need to be revised and costs increase. It disturbs the benefit-cost ratio, and raising additional funds for the completion of the same projects becomes difficult.

It can be suggested that the Government of Maharashtra should undertake special efforts to obtain clearance as early as possible. The follow-up should be effective.

B: Administration

1) The Department of Irrigation and Power -

The Department of Irrigation and Power got for
the first time an independent ministerial arrangement in 1960 when the Public Works Department got bifurcated. As a result of which the Building and Communication Department and the Department of Irrigation and Power were separately established. The business allotted to the Department of Irrigation and Power covers following main activities:

(i) Comprehensive study and survey of water resources on regional basis according to the river basins, (ii) Preparing of long term master-plan covering all aspects of water utilization, (iii) Fixation of priorities and systematic detailed planning on the basis of such priorities, (iv) The execution of works, and (v) The maintenance and development of executed works.

Special Features

The Department at present serves as the Secretariat of the Government and the headquarters of the Executive Heads of the Department.

It has a non-technical Secretary as the Head of the Department and five Chief Engineers within the Irrigation and Power Department and two Chief Engineers for Koyna-Hydro-Electric projects who are purely Executive Officers without any Secretariat work. These five Chief Engineers are actually working as ex-officio Joint Secretaries to the Government. The Department
has its own technical staff recruited from the Maharashtra Service of Engineers holding the positions like Deputy Secretaries, Under Secretaries and some other technical officers to carry out the executive responsibilities of the Chief Engineers. This Ministry has number of Boards and Committees attached to it. The most important non-statutory Board is the Maharashtra State Irrigation Board. Its working is as follows:

**Maharashtra State Irrigation Board**

With a view to advising Government in regard to the policies for development and management, the then Bombay Government set-up State Irrigation Board in 1958. On bifurcation of the then Bombay State the Board was reconstituted and was renamed as "Maharashtra State Irrigation Board". The Board has been reconstituted from time to time, the last being reconstituted on 4th August, 1970.

The present reconstituted board comprises of 16 official and 21 non-official members. Minister of Irrigation and Power Department is the Chairman of the Board who recommends the names of persons to be appointed on the Board. Deputy Secretary (Irrigation and Power Department) is the non-official Secretary to the Board. Generally non-official members of the Board are appointed on the board from the members of Parliament. State Assembly, State Council and from other prominent persons,
who are considered to be experts in Engineering and Irrigation. The Board meets once in a year and performs the following functions:

1) To advise Government on general policies regarding irrigation development and management.

2) To report to Government on such matter, as may be referred to it, by Government.

3) To advise Government on methods to secure full utilization of Irrigation potential available from various irrigation works.

2) Shortcomings in the Administrative Set-up of the Irrigation and Power Department

The foregoing discussion brings to notice the following shortcomings in the existing administrative set-up of the Irrigation and Power Department.

I. Overlapping Functions

Each Chief Engineer has a jurisdiction over the entire State. And, hence even though duties to be carried out by each of them are separate, their functions are overlapping resulting in a kind of confusion. For example, the Chief Engineer, Irrigation Project No.I is responsible for investigation of major irrigation projects and design of major dams. Again, the Chief Engineer, Irrigation Projects No.II is responsible for
all types of work relating to the construction of major works. In addition to this, he is also responsible for carrying out investigations in water resources in the State. Though, both the Chief Engineers have been assigned separate duties, their functions are overlapping. This results in the duplication of works.

II. Multifarious Duties to be carried out

Each Chief Engineer has to carry out multifarious duties, and heterogeneous functions. Consequently, efficiency of the works gets adversely affected. For example, the Chief Engineer, Irrigation Project No.1, has to look after the following various activities:

i) Investigation and design of major projects.

ii) Acting as a liaison officer between the Government of India and the State Government.

iii) Controlling and guiding activities of Maharashtra Engineering Research Institute, Nasik.

All these functions are not properly related. And, hence, effective pooling up of all functions cannot be expected.
III. Drought Zones are Neglected

There is no special provision in the administrative set-up of the Department of Irrigation and Power for the drought zones in the State. There are nine districts in this State which face the drought conditions always. These districts, therefore, need to be properly looked after.

3. Suggestions

i. Redistribution of Work

Each Chief Engineer has a jurisdiction over the entire State. Such a jurisdiction is not only big but quite unmanageable. And, hence, the whole work should be redistributed amongst the Chief Engineers. The State is divided into four divisions, each one can be accepted as a unit for jurisdiction instead of the whole State. Thus, there would be four Chief Engineers to carry out development work in four divisions independently. While the fifth Chief Engineer would look after the co-ordination of inter-division development works. It would certainly enhance administrative efficiency of the department.

ii. Chief Engineer to carry out all Works in Areas under his Jurisdiction

The defect of overlapping of functions can be eliminated if the Chief Engineer concerned carries out
all types of major, medium and minor works in the area that comes under his jurisdiction. Thus, for undertaking the development of major, medium and minor works in the division, only one Chief Engineer would be responsible. The arrangement would be useful for achieving maximum co-ordination in development activities in all divisions.

iii. Chief Engineer to Look after Investigation of Water Resources in the State

The work of investigation of water resources in the State is of paramount importance. A separate office be created under the control of the Chief Engineer, for investigation of water resources, with a jurisdiction over the entire State to find out sites suitable for arresting the water resources, for bringing additional area under irrigation.

iv. Combine all Research Activities under the Chief Engineer

At present, research activities are scattered. Maharashtra Engineering Research Institute, Soil Survey and Irrigation Research and Development Departments are almost working independently. It needs not be emphasised that research activities and development of irrigation are quite inter-related. Their isolated working would not contribute effectively.
It can, therefore, be suggested that all research activities, be combined and be brought under the control and guidance of the Chief Engineer to obtain the desired results.

v. Encouraging Activities of Mechanical Circle under the Chief Engineer

Since, the establishment of Mechanical Circle a lot of foreign exchange has been saved. The Circle has undertaken the manufacture of various items badly required for the construction of major and medium works. Again, by undertaking necessary repairs more and more machines are being put to use. Thus, the Circle has proved its utility.

It is, therefore, essential to encourage activities of this Circle by putting it under the control of the Chief Engineer. It will activate the whole organization to work for speedy construction of irrigation projects.

vi. Special and Separate Arrangement for Drought Areas

Out of 26 districts, 9 districts are always affected by droughts. But, while setting up the irrigation administration for the State, this drought area has not been paid any special attention. And, therefore, it can be suggested that some special and
separate arrangement be made with the following objectives:

(i) Combining the entire drought zone to find out water potential and sites suitable for projects,
(ii) with due consideration to the soils, climate and physical features of the particular areas find out the most suitable water conservation and distribution systems.
(iii) If necessary, with the help of Department of Agriculture carry out drought mitigating works.

The Department of Irrigation and Power cannot deny its responsibility towards drought zones. And, hence, arrangement on such lines would be desirable.

C : Management

Management of irrigation works each of which irrigates more than 250 acres (i.e. both major and medium works) is looked after by the Irrigation and Power Department. At various levels officers and lower non-gazetted staff are appointed to discharge the duties assigned to them for efficient and orderly management of irrigation. The following is the description of the irrigation management practices followed in the Western Maharashtra region.
1. Irrigation Management

Chief Engineer

The Chief Engineer is the Executive Head but has also to work as the Ex-officio Joint Secretary to the State Government. In his capacity as a Secretary he has to advise the Government on policy matters relating to the development of irrigation in the State. As the Executive Head, it is his responsibility for the implementation of Government decisions. He is also held responsible to watch the progress of irrigation, suggest modifications in Irrigation Act and Canal Rules, if necessary, and redress the grievances of irrigators, if any.

Superintending Engineer

He is an administrative officer in-charge of 4 to 6 irrigation divisions. He receives "Preliminary Irrigation Programmes" from Executive Engineers, for irrigation divisions, and approves them so that full utilization of water potential available would be achieved. As an administrative officer he has to inspect the divisional and sub-divisional offices, in order to detect misuses of water he visits irrigation fields and also redress the grievances of irrigators. He is authorised to post proper persons in-charge of sub-divisions and effects transfers to achieve maximum efficiency in the management of irrigation works.
Executive Engineer

He is in-charge of a Division consisting of four to six sub-divisions. The preparation of "Preliminary Irrigation Programmes", keeping a constant watch over the conditions of reservoirs and canals in his jurisdiction for achieving full utilization of water available are his primary responsibilities. In addition to this, he has to check at least 2 per cent of total Panchanamas and 1 per cent of total area of crops under irrigation in a season and has to inspect field irrigation to know the conditions of water distribution system. He is authorised to sanction Two-seasonal and Rabi Blocks, verify passes issued to detect misuse of water, if any. He is empowered to post and transfer the non-gazetted staff for maximizing efficiency in the management of irrigation works. He gets the assessment papers prepared and sends them to the Revenue Department for the realization of water charges.

Sub-divisional Officer

He is a Deputy Engineer in-charge of four to six sections. He prepares "Preliminary Irrigation Programme" for the area under his control and regulates the supply of canal water so that the water would be economically consumed and no area would be left unirrigated. He issues passes to those irrigators whose water applications are sanctioned by higher authorities.
According to the Government Rules he has to check at least 8 per cent of total Panchanamas and 2 per cent of the area under irrigation and to inspect a distributary at least once in a rotation. He can verify the passes and field irrigated to detect misuse of water and to check the conditions of system of water distribution. He is empowered to sanction cane overlap to the extent required. Since he comes directly in touch with irrigators, he is supposed to know their problems thoroughly well, and, hence, he is held responsible for smooth, orderly and efficient management of irrigation works.

Sectional Officer

He is an Overseer looking after an area of about 6,000 acres to be irrigated at a peak load. He holds the lowest office in the management set-up of the Irrigation Department. The irrigators in the area have to submit their water applications to him and he is authorised to dispose them off suitably. The most important job that he has to perform is to prepare "Statement of Water Requirements" for every rotation, to get it approved from higher authorities and to see that irrigation is complete within the quota of water allotted. He tours the area under his control at least once in a month to check conditions of distributing channels and to detect misuse of water, if any. In
addition to this he checks at least 20 per cent of
Panchanamas and 7 per cent of total area irrigated.
After the completion of measurement of crop irrigated,
he gets the assessment papers prepared and submits to
the Sub-Divisional Officer.

**Canal Inspector**

The Department of Irrigation conducts from time
to time "Canal Inspectors Class" and afterwards the
successful candidate is recruited as Canal Inspector.
He is a Class III servant looking after 1,500 acres of
irrigated area. For this area he prepares "Water Demand
Statement", for each rotation and gets it approved from
the Sectional Officer. He distributes water to
legitimate customers, i.e., irrigators, as per the
sequence laid down in the "Rotation Statement" through
distributing channels in his charge. During the flow
period of canal he moves in the field to issue dates on
water passes, to detect misuse of water and to hold
Panchanamas in case of unauthorised irrigation.

**Patkari**

He is a Class IV servant with a minimum
qualification, viz., Vernacular Standard IV passed.
Senior Patkaries are entrusted with the duties of Canal
Inspector. Junior Patkaries work under Canal Inspector
and help him in distribution of water, detection of
misuse of water and report the Canal Inspector about the conditions of area irrigated.

Miscellaneous Staff

There are other categories of irrigation staff. Keyman, Sluice Keeper, Chowkidar, etc. are not directly concerned with the management of irrigation. But they help the Canal Inspectors and Sectional Officers especially when there is rush for irrigation.

A chart showing the administrative set up of irrigation management is given on the next page.

The State of Maharashtra has been comprised of three parts, viz., (i) Western Maharashtra, (ii) Vidarbha Region and (iii) Marathwada Region. Before 1960, i.e., period prior to the establishment of the present State of Maharashtra, the Vidarbha Region was a part of the Central Provinces and the Marathwada region was a part of the Hyderabad State. Consequently, the irrigation management in both these regions is still somewhat different from that which obtains in the Western Maharashtra region. Even now in Vidarbha "Central Provinces Irrigation Act, 1931" and in Marathwada, "Hyderabad Irrigation Rules" are in force.

The foregoing discussion helps to derive the following conclusions:
Chief Engineer

Superintending Engineer No. 1

Executive Engineer No. 1

Sub-Divl. Officer No. 1

Sectional Officer No. 1

Keyman, Sluice Keeper No. 1

N.B. : 1) For simplicity one unit from each cadre is further sub-divided.

2) In each case four numbers of posts are shown in lower cadre.
Actually they may be between 4 to 6.
1. **Unification of Irrigation Acts is Essential**

There are three different irrigation acts, prevailing even at present, in different parts of the State. It is quite absurd that in one State different laws and practices should prevail. It is utmost essential to have unified and single Irrigation Act most suitable for all parts of the State.

2. **The Best Hierarchial Arrangement**

The field organization of the Irrigation and Power Department has the best hierarchial arrangement.

3. **Inefficient Field Management**

The Canal Inspectors and Patkaries form "Field Management". It is quite inefficient. This inefficiency becomes visible in the form of complaints received from the irrigators, undetected misuse of water, mess in the record, incorrect, varying and hence unreliable statistics and information leading to the frustration of policy and programmes laid down.

4. **Too Many Duties**

The Canal Inspectors and Patkaries have to perform number of duties, both in the office and in the fields. It has been observed again, that most of the jobs are pressing and to observe correct schedule becomes very difficult for them. And, therefore, unless their
workload is reduced considerably, the standard of efficiency cannot be raised. It can be done with following two ways:

A. Reduce the Area

Each Canal Inspector is assigned an area of 1,500 acres to supervise. The work, apart from being voluminous, is varied and also urgent. It is, therefore, necessary to reduce the area of work to 750 acres. It would reduce their workload and would facilitate them to pay more careful attention to their duties.

B. Restrict the variety of Work

This is also another way of improving their efficiency. The work of the Canal Inspectors and Patkaries be bifurcated into two parts, viz. (i) field work and (ii) the maintenance of records. The Canal Inspectors and Patkaries be asked to look after only field work. So far as the maintenance of records is concerned, Canal Inspectors be assisted by a clerk of similar grade.

This suggestion has two aspects. (i) The Canal Inspectors can acquire specialized knowledge of field operations. (ii) It has been complained that the records maintained by the Canal Inspector are far from satisfactory and, either, due to fear, and / or, favour, they manipulate them. Thus, the facts are
distorted. This happens specially in case of holding of Panchanamas. It can be stopped, if maintenance of record is made a responsibility of another person working altogether independent of any botheration of field work and management.

**Lower Qualifications and No Training**

Very few Canal Inspectors and Patkaries are educated upto Secondary School Certificate Examination. They do not get proper training. Whenever necessary "Canal Inspectors Courses" are conducted by the Department of Irrigation and Power. Consequently, the efficiency of field management gets considerably reduced. The situation can be remedied in the following ways:

(a) **Recruiting Qualified Persons**

The Government should raise the minimum qualifications necessary for the recruitment as a Canal Inspector and Patkari passing of at least Secondary School Certificate Examination.

(b) **Establishing Separate Training Centres**

It is necessary to establish separate training centres to train new recruits and give refresher training to senior Canal Inspectors and Patkaries. The new entrants be given a thorough training of maintenance of record and field work. The study tours be arranged
to visit fields and offices to impart practical training. The refresher course should intend to acquaint senior canal inspectors and patkaries with the changing Government policies and irrigation practices. The sugarcane is the most important cash crop and its block is sanctioned for a period of six years. While revising these blocks, if necessary, the Government can make changes in its policies. And, hence, the refresher course should start soon after such a revision of blocks.

5. **Panchanamas - A Bone of Contention**

Panchanama is the only way to control unhealthy practices like misuse and theft of water carried on by irrigators. But it is punitive by nature and creates disturbances in the smooth relations between Canal Inspectors and Patkaries on one hand and irrigators on the other. Generally, irrigators adopt the following mal-practices to frustrate the efforts of Canal Inspectors and Patkaries who are responsible to regularise the distribution of water.

1) **Threatening and physical Violence**

These are the most common tricks. The neighbouring irrigators form their group and use all unlawful tactics to get water. If Canal Inspector or Patkari happens to go to the site he would be threatened and warned, so that he should not come to their fields
again. Many cases of bodily violence and locking up of Canal Inspectors or Patkaries in isolated rooms far away in the fields have been learnt from very reliable sources. Thus, they obstruct the very working of inspection of fields irrigated. Consequently, no Panchanamas can be held.

Remedies Suggested

1. The leaders of the village be summoned to Sub-Divisional Office and be issued a stern warning against the recurrence of such events. It should be made clear to them that the whole village would be fined or the blocks of the village would be cancelled in case the incidences are repeated.

2. The incidences may be published in newspapers with the names and address of culprit irrigators and request may be made to others to note the same with action taken by the Government.

3. The rude irrigators may be boycotted by the villagers and stop rendering any assistance to them until they confess their guilt and give assurance in writing to abide by law and co-operate with the Government officers in their routine work.

4. Education of the public opinion in this context is also essential. Public opinion must be formed and collective responsibility be created.
ii) Alleged Personal Grudge or Prejudice

Whenever a Panchanama is made, the charges are generally not accepted by the irrigators. They complain against the Canal Inspectors and Patkaries on the ground of harbouring a personal grudge or prejudice. Even the Panchas or witnesses are also charged of being biased or partial in their behaviour.

Whenever such complaints are received, the Sectional Officer should collect first hand information and form his own opinion. If the Canal Inspector or Patkari is found guilty he should be warned and if necessary, be transferred to other beats. But if it is found that there is almost no substance in such complaints or charges, the concerned Canal Inspector be protected and stern warning be given to the culprit irrigators against repeating such events.

iii) Bringing Political Pressure

It has become the worst headache. Owing to elections, the groupism starts. The villagers have contacts upto ministerial level, both at the State and Central Governments. When a Panchanama is made, irrigators take the help of such higher authorities who request the Superintending or Executive Engineers to cancel the Panchanama. Naturally, such "request" is communicated downwards and somehow or the other the
Panchanama is cancelled or is set aside as void, most probably, on the ground that the regularities have not been observed by the Canal Inspector. Encouraged by such examples, even other small irrigators dare to go against the subordinate Field Officers. Unless a restraint is exercised by the higher authorities themselves, such cases of influence and political pressure would not be minimized.

6. **Cases of Bribery and Corruption**

It has been generally complained that the Canal Inspectors and Patkaries accept bribe and are corrupt by nature. Generally, following different ways are adopted by them:

i) **Black Mailing the Irrigators**

The irrigators of mild and simple nature or those who are ignorant fall easy prey. They are threatened and many times bogus Panchanamas on forms without machine numbers are made. The irrigators are blackmailed and cash or kind is earned.

ii) **Agreeing to Reduce the Acreage of Field of Unauthorised Irrigation in Panchanamas**

On detection of unauthorised irrigation, the Canal Inspectors can make a compromise with the concerned irrigator(s) to show the area of unauthorised irrigation
to the minimum. Of course such compromise is always accompanied by "well-rewards" to them in the form of presentations either in cash or kind.

**Their Association with Higher Authorities**

Again, it has been complained that the Canal Inspectors and Patkaries are helped by some higher authorities; viz., Overseers and Deputy Engineers. Of course, the charges of corruption cannot be levied against them for want of proper evidence or proof. But their collusion can be proved by the very fact that the standard of living of all those who participate in this unholly alliance increases very rapidly. Again it is beyond doubts that their lavish spending on luxies is certainly beyond their legal means. This complicates the situation.

This situation can be remedied only with the help of anti-corruption machinery if effectively employed.

7. **Inspection Tours of Higher Authorities**

All higher authorities upto Superintending Engineers, have to undertake tours, to inspect both offices and fields irrigated, and to solve the problems faced in the fields. Thus, from this point of view these tours are helpful.
But its other side is equally dark. The Executive Engineer generally comes to field inspection along with his paraphernalia and the Canal Inspector and Patkaries have to "arrange" for these trips.

The Canal Inspectors and Patkaries are Class III and IV servants. It becomes very difficult for them to spend amount from their own means. They have to seek help from big irrigators who arrange for such tours of such higher authorities. Of course, being under obligations of such big irrigators, the Canal Inspectors and Patkaries have also to offer concessions to them. Generally, they are in the form of neglecting unauthorised irrigation or water theft and offering reduction in the acreage of field of unauthorised irrigation.

It is clear from this discussion that even these tours become a source of trouble to the field staff.

Suggestions

1. The Canal Inspectors and Patkaries should be allowed to incur expenditure when the higher authorities are on tours. This suggestion has a number of advantages, viz. (i) the unethical practices of the higher authorities would be checked, (ii) The Canal Inspector would not be thrown at the mercy of the big and unscrupulous irrigators, (iii) the total expenditure would also be reduced.
It is clear that the present irrigation management requires radical changes in order to make it more effective.

In this respect, following suggestions can be offered:

**Compulsory Establishment of Water Panchayats**

It should be compulsory to establish "Water Panchayat" on each distributory consisting of not more than 25 irrigators with a jurisdiction limited to 250 acres of irrigated fields. The Panchayat should have elected office bears who would be held responsible for internal distribution of water and collection of water charges from member irrigators. A paid servant be employed by the Panchayat to undertake internal distribution of water as per the requirements and turn of members and thus ensure proper distribution of water.

The Patkari or Canal Inspector would supply water on a volumetric basis to the Panchayat and prepare assessment papers and water passes and hand these over to the office bearers instead of members individually. This system would considerably reduce the workload of field management and misuse and theft water would be eliminated.
i) **Development of Sense of Responsibility**

Irrigators would develop the sense of responsibility, if they were made to participate in the management of irrigation. And hence, they should be compelled to form the water Panchayats.

ii) **No Panchanama : No Trouble**

Since internal distribution would be the responsibility of the Panchayats, inspection of individual fields, detection of unauthorised irrigation and theft of water and holding Panchanamas would not be required at all. Thus, the bone of contention would be removed.

iii) **Smooth and Systematic Management**

The development of sense of responsibility, practical experience in the field of management and moral pressure are the only means which can be used to increase the standard of management of irrigation in the fields. The irrigators would observe discipline and the Government servants would be required to have a least interference in the day to day working. It will ultimately produce smooth and systematic management.

2. **Increased Pay Scales and Chances of Promotions**

The Canal Inspector is Class III while the Patkari is Class IV servants, and at present receive
starting salaries of Rs.90/- and Rs.75/- respectively inclusive of all allowances. Again, they have almost no chances of promotions. Consequently, they develop apathetic view about their service and loose interest in work.

And, hence, it is necessary to increase their salaries and other facilities. The Government should make their services attractive by offering fringe benefits by creating a sense of security in service. They should be given chances of promotion with a due consideration to their aptitude.