

# **Government of India Ministry of Water Resources**

# **DRAFT**

# NATIONAL POLICY GUIDELINES

# **FOR**

# WATER SHARING/DISTRIBUTION AMONGST STATES

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#### CHAPTER I

# INTRODUCTION AND SCOPE

# 1.1 Background

The National Water Policy was adopted by the National Water Resources Council of India in 1987. At the time of adoption of the policy, the Council had taken note of the necessity for formulating guidelines for water sharing/distribution of inter-State rivers amongst the States. The National Water Board constituted by the National Water Resources Council has also indicated the need for such guidelines. Subsequently at the time of revision of Policy as "National Water Policy-2002" National Water Resources Council during its Fifth Meeting held on 1st April, 2002, substituted the words 'Sharing/Distribution' in place of the word allocated.

The sharing/distribution of water of a river basin amongst its constituent States or countries competing for its use is a universal problem. This matter has been dealt with in various international treaties and compacts, in various inter-State agreements amongst constituent States of a nation and in judgments of various courts and tribunals etc. The Helsinki Rules on the use of water of international rivers adopted by the International Law Association in August, 1966, lay down the guiding principles and indicate an elaborate procedure of resolving the issues through negotiations, arbitration, tribunal or the International Court of Justice.

India is a Union of States. Under Entry 56 of List I of the Seventh Schedule of the Constitution, Parliament has overriding power of legislation for regulation of inter-State rivers and river valleys in the public interest. Subject to this provision, under Entry 17 of List II, the State has exclusive power over water. Under Article 262 of the Constitution, adjudication of any dispute or complaint in respect of the use, distribution or control of water of any inter-State river or river valley is provided for. The Inter-State Water Disputes Act of 1956 has already been enacted for this purpose, and has been amended from time to time. The River Boards Act of 1956 was also enacted under Entry 56 of the Constitution. However, there are no guidelines in these acts or any policy for sharing or distribution of inter-State river waters.

# 1.2 Scope

The draft policy guidelines are basically for sharing / distribution of waters of inter-State rivers amongst the States and Union Territories of India and are recommendatory. It has no relevance or applicability in regard to international Sharing/distribution of waters of international basins in which India is a co-basin State, even though the international basin may also be an inter-State basin. in India.

#### **CHAPTER II**

# **CONCEPTS AND DEFINITIONS**

# 2.1 Rivers, River Valleys and River Basins

**2.1.1** As per Helsinki Rules, an international drainage basin is a geographical area extending over two or more sovereign States determined by the watershed limits of the system of water including that flowing into a common terminal. In general, the opening of a river into the ocean system is taken as the common terminus.

For the purpose of this policy an inter-State river basin is a geographical area extending over two or more States/Union Territories of India determined by the watershed limit of the system of waters, flowing into the ocean/sea either directly or through another sovereign nation or into a natural lake/depression having no outlet. The whole river basin upto its terminus or upto the international boundary would be considered as a single unit for sharing/distribution of waters of an inter-State river or river valley.

**2.1.2** As per National Water Policy -2002 (revised), water resources development should be planned for a hydrological unit such as drainage basin as a whole or for a sub-basin, multi-sectorally, taking into account the entire water for sustainable use.

#### 2.2 Co-Basin States

A co-basin State of an inter-State river is a State or Union Territory in India the territory of which includes a portion of the inter-State river basin. An upstream or downstream sovereign nation, the territory of which includes a portion of the concerned inter-State river basin, would not be considered as a basin State for the purpose of these guidelines.

# 2.3 Watersheds and Catchments

# 2.3.1 General

The concept of a river basin/sub-basin is based on the concept of watershed or catchment area, both the terms being considered synonymous. The catchment area is an area in which all the natural paths of run-off, as defined by land slope and stream network, converge into a single outlet of the catchment.

#### 2.3.2 Convergence at outlet

While this concept holds good for most areas, it does not hold in some cases where water in its natural path adopts more than one distinct natural route, thus not leading to a convergence. This occurs mainly in the following situations:

- (a) The mouths of a river having a delta with multiple outlets to the sea which however are near each other.
- (b) Cases where the river bifurcates into distinct paths leading to two or more distinct outlets into the sea.

# 2.3.3 Basin/sub-basin Boundary in Areas Without Well Developed Drainage

- (a) Some areas may not have well developed drainage and the natural path of flow of water may not have been determined by nature due to the lack of run-off. In such areas, the path needs to be decided from the topography by deciding the natural path which is likely to occur in case a heavy precipitation and run-off take place.
- (b) Some areas may have a topography which may not allow natural run-off to find a natural outlet into an ocean/sea. In such cases, even in an unusually high precipitation event, the run-off can terminate in an inland lake from which it is likely to evaporate. Such large areas having a common terminal can be considered as a basin area of internal drainage and could be considered as a separate entity for the purpose of these guidelines. However, small pockets of areas of internal drainage more or less surrounded by another distinct basin may be considered as parts of the latter.

# 2.4 Storage, Withdrawal, Consumptive Use and Utilisation

# 2.4.1 Storage

In the natural course, waters of a basin are moving from the land areas to its outlets. Artificial detention of these waters constitutes storage of water.

# 2.4.2 Withdrawal, Export and Import

Abstraction of the water from the natural basin or from the artificial storages within the natural system constitutes withdrawal of the water. Part of the withdrawn water could be transported beyond the boundaries of the river basin. This part then does not have the natural means of returning to the basin even if not utilised. This portion is considered as 'Export' of water. The part of water received into the basin from some other basin is considered as 'Import' of water.

# 2.4.3 Consumptive Use of Water

From the hydrological point of view water is normally transformed from one state to another and thus there is no final loss of water.

A portion of the water may get transferred to the atmosphere (through the process of evaporation from surface of the water body and from soils) or by evapo-transpiration through plants etc. A portion of the withdrawal (i.e. which has not been exported) is used

within the basin for some beneficial purposes. This quantum of water constitutes 'consumptive use' of water.

# 2.4.4 Return Flow

The part of the withdrawn water which is neither exported nor used consumptively or lost by way of deep percolation returns to the natural waters of the basin. This water is known as the "Return Flow". The place of its return is governed by the place of its use or application and by the topography or nature of the aquifers.

At times, the returned flow has no further utility for beneficial use. For example, return flow from the hydropower plant may occur at such a low level or at such a point downstream from where further use of the water for irrigation or other purposes get limited. Similarly at times, the quality of the returned water may be so poor that it cannot be gainfully used, which may also be considered as consumptive use in the basin.

# **CHAPTER III**

# **OBJECTIVE**

# 3.1 The Broad Objective

The broad objective governing the sharing / distribution of water is:

Developing the waters of inter-State rivers for the betterment of the population of the cobasin States/Union Territories such that developments are not detrimental to the interests of one another and are guided by national perspective.

#### **CHAPTER IV**

# **GENERAL PRINCIPLES**

# 4.1 Sharing / Distribution of Water of Part of the Basin

The river basin as defined earlier would in general form a unit for inter-State water sharing / distribution. However, at times, water sharing / distribution of a sub-basin or a part of the basin may have to be decided separately, as a matter of convenience for very large basins having a large numbers of co-basin States such as the Indus, the Ganga-Brahmaputra-Meghna basin.

# 4.2 Right of Water Use

Water is not susceptible to absolute ownership as a specific intangible property. There could only be a right to take and use the water. Only when withdrawn from its natural state that amount of the water may temporarily become the property during the period of its actual possession/use.

# 4.3 Equitable Apportionment

The Principle of Equity shall apply to the sharing / distribution of water of inter-State rivers and river valleys.

# 4.4 Forms of Sharing/Distribution

The sharing / distribution could cover the water of the river basin. It would not, however, cover the direct use of rain water by the user in the State. For this purpose, any water use, which requires any of the following, shall not qualify as a direct use of the rainwater:

- (i) Storage of water
- (ii) Diversion of water from a natural stream

In general, the sharing / distribution of water amongst States could take one of the following forms:

- a) All the waters of a basin or sub-basin or its part may be allocated to one of the co-basin States. In this form of allocation no quantification of water is involved.
- b) All the waters of a basin or sub-basin may be shared by / distributed to co-basin States.
- c) Specified quantum of the waters of the river or river valley or river basin or sub-basin may be shared by / distributed to co-basin States.

In both 'b' and 'c' quantification of the water is involved. These forms of sharing/distribution through quantification are preferred by these guidelines. Further sharing/distribution of water on monthly or seasonal basis amongst concerned co-basin states could be as mutually agreed to by them.

Whenever such quantification is involved, it would be necessary to ensure that only that quantum of water, which has reasonable utilisation shall be shared/distributed. This reasonable utilisation would depend on the availability of water at different points in the river basin and the technoeconomic viability of its utilisation.

#### 4.5 Withdrawal vis-a-vis Utilisation

The sharing/distribution of the water amongst co-basin States would be in the form of a right to utilise the water. Occasionally a State is required to be permitted to withdraw a larger amount of water from a particular point or area of the river basin than its allocated quantum of utilization, under obligation to return the excess drawn back to the river basin. Such a situation is to be specifically provided for.

If any special consideration for existing utilization is being given in the scheme of sharing/distribution, only the 'utilization' as defined in the guidelines (at para 4.8) should be considered. Information on return flow may be maintained and a water balance approach be adopted.

Where the availability of water to a downstream user is likely to be adversely affected because of full utilization due to modernization, better management, conjunctive use etc. in an existing scheme of withdrawal by an upstream user resulting in reduction of the return flow, the scheme of sharing/distribution can place restriction on such a full utilization.

# 4.6 Import/Export of water

- (a) A State may import water from another basin outside its boundary to its territory falling within the inter-state basin under consideration. A State can also import water out of its share from one basin to another within its territory. Such imported water would not be considered as the water of the inter-state basin into which the water is imported. Similarly the return flow of the imported water, after its use also would not be considered as the water of the inter-state basin into which it is imported. The water sharing/distribution scheme may, however, lay down procedure for keeping separate account of the utilization of imported water.
- (b) Likewise a state / states may export its / their share of water in a basin to other deficit basin outside the state/ states. The water thus exported will be accounted towards its/their share of basin waters, as may be agreed.
- (c) However, if water is imported from another surplus basin to the inter-state basin under consideration in national interest, such imported water and its return flow would be counted as water of inter-state basin under consideration, for purpose of sharing/distribution. The quantum of water exported from the surplus basin in overall national interest will not be counted as water available for sharing in that basin.

# 4.7 Sharing/Distribution Amongst States vis-a-vis sharing/distribution Amongst Uses

In general, the priorities of uses in India have been specified in the National Water Policy – 2002. However, the priority of uses could differ from State to State and even within regions in the same State. While these priorities of uses and consequential priority needs could be considered during the process of determining the sharing/distribution, the actual sharing/distribution need not be qualified for a particular use. The State should normally be free to use its share of water for any beneficial purpose unless specific restrictions are warranted from over-riding national priorities\_without detriment to the interests of other co-basin State(s).

# 4.8 Protection of Existing Uses

Every effort shall be made to protect the existing utilisation in the pre-plan period as well as through projects implemented following due procedure and approval. In exceptional cases, the projects not covered as above, could be considered on individual merit. Where an existing use (withdrawal, utilisation, etc.) is not being allowed in the scheme of sharing/distribution, a phased change over could be considered.

# 4.9 Existing Inter-State Agreements

- 4.9.1 Where an existing Inter-State Agreement has the approval of all the co-basin States, this agreement shall be accommodated in the scheme unless it is conflicting with the national interests.
- 4.9.2 In the event of formation of any new State, the existing Inter-State Agreements between or amongst the co-basin States are to honoured and accommodated in the scheme of sharing/distribution. However, any Agreement reached prior to formation of any new State could be reviewed if mutually agreed by the concerned co-basin States or as per relevant provisions of the Reorganisation Act.

# 4.10 Parties to the Process of sharing/distribution

- **4.10.1** Only the co-basin States and the Central Government would have a right to be a party to the process of deciding the sharing/distribution. A non-basin State may claim interest in the waters of a basin on account of various factors. Such claim or a part of it may be found fit for consideration in the scheme of sharing/distribution, in the national interest. However, the non-basin State need not become a party to the sharing/distribution procedures/process.
- **4.10.2** In the process of water sharing/distribution, in consultation with the co-basin States, the Centre would take care of the water sharing/distributions required in the national interest. This would include water required for environmental or ecological considerations of the rivers, estuary, maintenance of proper navigation in the National Waterways and for meeting international obligations or for maintaining good international relation in respect of rivers which are international. Any State affected adversely due to such sharing/distribution would be adequately compensated by alternative means.

**4.10.3** Where an existing or on-going arrangement or facility which allows or would allow the use of basin waters to a non-basin State, within or without prior inter-State agreement in this regard the non-basin State may become a party to the sharing/distribution procedure for this limited purpose only. The general principles listed elsewhere in regard to special use and in regard to inter-State agreements would apply to these cases.

# 4.11 Water Quality

**4.11.1** A State should prevent such deterioration of the quality of the basin water passing from its territory to that of another as would cause a substantial injury to the co-basin State. The co-basin States shall adopt measures to maintain the quality of water at the desired level. In general, the quality of water being discharged across the borders should be fit for bathing as per the national standards in force.

# 4.12 Long Distance Water Transfer (LDWT) / Interlinking

- **4.12.1** For the purpose of these guidelines, existing or future schemes of transferring the basin waters outside the territories of the concerned basin States would be considered as inter linking / Long Distance Water Transfer proposals.
  - **4.12.2** The long distance water transfer / interlinking proposals to water short areas and non basin States would be decided by the concerned basin States and the Central Government in the national interest after taking into account the present and future requirements of the basin states.
  - **4.12.3** The sharing/distribution under LDWT / interlinking proposals would be subject to the necessary techno-economic study.

#### **CHAPTER V**

# **GUIDELINES FOR EQUITABLE DISTRIBUTION**

#### 5.1 Relevant Factors to be Considered

In general, the following relevant factors need to be considered for deciding equitable distribution:

#### (a) Contribution of each of the co-basin States to the waters of the basin

This depends upon:

- (i) The drainage area of the basin within the territory of the State,
- (ii) The geographical and climatic factor of the drainage area e.g. orographic influence, vegetative cover, precipitation, temperature, humidity etc.

While deciding the contribution of water by the co-basin States, both the annual contribution and its intra-annual and inter-annual variability may be considered in as much as it may affect the planning of water utilisation.

# (b) Requirement of water in each of the co-basin States

This may be evaluated from the following factors as relevant:

- (i) The extent of drought-prone area as a whole and within the basin in particular.
- (ii) Existing level of irrigation development vis-a-vis the culturable area for reasonable development.
- (iii) Existing level of irrigation development vis-a-vis those in other co- basin States,
- (iv) Population in the basin vis-a-vis in the State.
- (v) Existing level of domestic and industrial water utilisation.
- (vi) Likely water requirements for domestic and industrial uses projected generally for 40 years.
- (vii) Existing and future demands for other requirements such as, navigation, hydro-power generation, environmental, ecological, etc. in the basin area.
- (viii) General economic development of the basin area vis-a-vis in the State and other co-basin States.

# (c) Practicability of utilisation of water demanded

This may include:

(i) Techno-economic feasibility of the project proposals submitted in favour of the projected demand. Project(s) benefiting population belonging to under privileged classes should be viewed relatively liberally.

- (ii) Environmental impacts of such proposals.
- (iii) Conflicts with riparian rights of other co-basin States as well as those of the downstream areas in the same State.

# (d) Availability of alternate or supplementary sources for meeting the water demand

This may include:

- (i) Possibility of improving efficiency and productivity of existing uses.
- (ii) Development and import of waters from other basins/inter-basin diversions within the State.
- (iii) Utilisable ground water potential in the basin area of the State.
- (iv) Possibilities of long distance inter basin water transfers/interlinking.

While the relevant factors need not be limited to those enumerated above, it may be ensured that additional factors do not involve repetition of the same considerations which are covered by the factors listed above.

# 5.2 Restrictions in sharing/distribution

It would be in order to restrict sharing/distribution of a part of the waters of the river basin by any of the co-basin States, on account of one or more of the following reasons:

- (i) The techno-economic viability of the use of available waters has not been established.
- (ii) The availability of water or the quantum of possible utilisation is not well established.

# 5.3 Sharing/Distribution through Joint Projects

If the water sharing/distribution made requires implementation of coordinated plan of action involving construction and/or operation of joint projects following cooperative approach, the general principle of sharing/\_distribution of the benefits may be as follows:

- (a) Each of the co-basin States which suffers in any manner some disadvantage due to a joint project will receive some compensatory benefit from the project.
- (b) A State which could have carried out some development and derived some benefits by executing an alternate project on its own without detriments to the rights of other States, may have to give up such proposals in view of a joint project. This may become necessary because a joint project may either physically obstruct the alternate development or because it may not be technically compatible with the joint project. In such a case, the State which gives up its options of alternate development should be given commensurate benefits of the joint project.

(c) The additional net benefits accruing through joint efforts may be distributed to the beneficiary States equitably after considering the disadvantages in any manner suffered by each State and the cost shared by each State or as may be mutually agreed by the co-basin States.

# 5.4 Review of sharing/ distribution

#### (a) Reasons for the Review

Any scheme of sharing/distribution of the waters of an inter-State basin as finalised at one time may require a review after lapse of specific / sufficient period as may be agreed on account of one or more of the following reasons:

- (iii) Additional information becoming available subsequent to the sharing / distributions decided, particularly in regard to water availability.
- (iv) Climatic and hydrologic changes which might have occurred subsequently.
- (v) The technologies for water development and management and the economies of such development, the environmental and ecological considerations etc. may have changed significantly so that the assumptions made at the time of distribution may have changed substantially.
- (vi) The progress of the water resources development and its utilisation are such that resharing / redistributing, after considering the levels of development, is in the overall national perspective.

#### (b) Guidelines for Review

- (i) Every scheme of sharing/distribution of water should have a provision for a review of the sharing/distributions. Such a review would be necessary after a period about 40 years of sharing/ distribution or as may be agreed by the co-basin States.
- (ii) The revised sharing/distribution, resulting from the review, should not, as far as possible, disturb any utilisation that may have been undertaken by any State within the limits of the sharing/distribution made earlier.

#### **CHAPTER VI**

# MONITORING, ADMINISTRATION AND CONFLICT RESOLUTION MECHANISM

# 6.1 General

Any scheme of inter-State water sharing/distribution should have an inbuilt provision for monitoring the implementation and for resolution of the differences that may arise.

Such an inbuilt provision may have the following components:

# 6.1.1 Monitoring:

- (i) A hydrometric network to measure the quantity and quality of flows at selected points in the river basin. The network may cover rainfall, surface flow in natural streams and rivers, flows in canals, levels and capacities of lakes, ground water levels etc. so as to allow compilation of water balance account of the basin/sub-basin.
- (ii) A Management Information System as also a hydrologic forecasting service which makes the relevant hydrologic and water use information available immediately or in a reasonable time to all the basin States to allow proper management of the waters.
- (iii) A provision for allowing reasonable access for inspection of the gauging sites as also of the water development facilities within the territory of one State by the other co-basin States.
- (iv) A system of annual or periodical exchange of the processed water balance and water use information amongst the States.

#### 6.1.2 Administration:

An appropriate administrative machinery like Basin Authority/Board is to be constituted under the aegis of Central Government in consultation with the co-basin States, capable of monitoring and implementing the water sharing/distribution. Such a machinery should have executive powers and should, in general, have the following attributes:

- (a) It should be capable of overseeing the implementation of the provisions.
- (b) In case of joint projects, it should be capable of regulating the implementation of water sharing/distribution arrangements of such projects.
- (c) It should have powers to call meetings of the concerned co-basin States/ Party States, as may be, and also the Water Users Associations to discuss and find solutions to the operational problems.

- (d) It should have powers to call periodical meetings of the representatives of the cobasin State Governments and Water Users Associations to implement the operational decisions.
- (e) It should also have the power to assess the damages caused to any co-basin state due to non-compliance of the agreed sharing/distribution arrangements amongst the co-basin States.

#### 6.1.3 Conflict Resolution

There should be provisions for appeal, arbitration and overall review of the machinery by a high level committee of the co-basin States wherever necessary. High level considerations and negotiations could be made mandatory before going for adjudication.

#### 6.2 Conclusion on the basis of all relevant factors

The guidelines do not try to lay down definite formula for sharing/distribution on the basis of various factors enumerated herein. In determining the sharing/distribution, all the relevant factors are to be considered together and a sustainable sharing/distribution arrived at for implementation.

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