Prepared by the Sub-Group* on a National Water Framework Law set up by the Planning Commission's Working Group on Water Governance for the Twelfth Plan
(* Ramaswamy R. Iyer, Chairman, Members: Philippe Cullet, K. J. Joy, K. C. Sivaramakrishnan, Videh Upadhyay, M. S. Vani. Assisted by Mahadevan Ramaswamy.)

THE DRAFT NATIONAL WATER FRAMEWORK ACT: AN EXPLANATORY NOTE

## I. Why is a national water law necessary?

1. Water, like air, is one of the most basic requirements for life. If a national law is considered necessary on subjects such as the environment, forests, wildlife, biological diversity, etc., a national law on water is even more necessary. Water is as basic as (if not more basic than) those subjects.
2. Under the Indian Constitution water is primarily a State subject, but it is an increasingly important national concern in the context of:
(a) the right to water being a part of the fundamental the right to life;
(b) the perception of a water crisis because of the mounting pressure on a finite resource;
(c) the inter-use and inter-State conflicts that this leads to, and the need for a national consensus on water-sharing principles, and on the arrangements for minimising conflicts and settling them quickly without resort to adjudication to the extent possible;
(d) the threat to this vital resource by the massive generation of waste by various uses of water and the severe pollution and contamination caused by it;
(d) the long-term environmental, ecological and social implications of efforts to augment the availability of water for human use;
(e) the equity implications of the distribution, use and control of water: equity as between uses; users; areas; sectors; States; countries; and generations;
(f) the international dimensions of some of India's rivers; and
(g) the emerging concerns about the impact of climate change on water and the need for appropriate responses at local, national, regional, and global levels.

It is clear that the above considerations cast several responsibilities on the Central Government. Some of these can be dealt with only partially under existing laws such as the Environment (Protection) Act 1986, the Water (Prevention and Control of Pollution) Act 1974, and others. On inter-State rivers there are (i) Entry 56 in the Union List which enables the Central Government to act if Parliament legislates for the purpose, (ii) the River Boards Act 1956 enacted under it (which has remained inoperative), and (iii) the Inter-State Water Disputes Act 1956 enacted under article 262 of the Constitution and amended in 2002. However, inter-State rivers and river valleys are not the same thing as 'water' per se, and adjudication is not the only thing that needs to be provided for.

All the aspects enumerated earlier cannot be brought within the ambit of the existing Central laws. Given the concerns set forth above, the need for a national water law is self-evident. Such a law will not preclude the further use of Entry 56, or the re-activation of the River Boards Act, or amendments and improvements to the ISWD Act.
3. Several States are enacting laws on water and related issues. These can be quite divergent in their perceptions of water. Again, under a number of Projects and Programmes different States are undertaking 'water sector reforms', and as a part of this they have formulated or are formulating State Water Policies. Here again, significant divergences are
possible. Some divergences of policy and law may be inevitable and acceptable, but they have to be within reasonable limits set by a broad national consensus on certain basics.
4. Different State Governments tend to adopt different positions on the rights of different States over the waters of a river basin that straddles more than one State. Such legal divergences tend to render the resolution of inter-State river-water conflicts even more difficult than they already are. A national statement of the general legal position and principles that should govern such cases seems desirable.
5. Finally, the idea of a national water law is not something unusual or unprecedented. Many countries in the world have national water laws or codes, and some of them (for instance, the South African National Water Act of 1998) are widely regarded as very enlightened. There is also the well-known European Water Framework Directive of 2000. The considerations behind those national or supra-national documents are relevant to India as well, although the form of a water law for India will clearly have to be guided by the nature of the Indian Constitution and the specific needs and circumstances of this country.
6. It was the recognition of the need for a minimal national consensus on certain basic perceptions, concepts and principles that led to the adoption of the National Water Policy of 1987 and the NWP of 2002. Currently the process of considering further revisions to the National Water Policy is in progress. However, a national water policy has no legal status. A national water law is necessary.

## II. What will be the nature and scope of a national water law in India?

1. The proposed national water law is not intended to centralise water management or to change the Centre-State relations in any way. What is proposed is not a Central water management law or a command-and-
control law of the usual kind, but a framework law, i.e., an umbrella statement of general principles governing the exercise of legislative and/or executive (or devolved) powers by the Centre, the States and the local governance institutions.
2. No administrative machinery or institutional structure (except for a national water Information system) is envisaged at the Centre under this framework law, and consequently no penal provisions are envisaged. This is not intended to exclude the necessary administrative machinery, institutional structure and penal provisions in State laws within this framework.
3. However, the law is intended to be justiciable in the sense that the laws passed and the executive actions taken by the Central and State Governments and the devolved functions exercised by PRIs will have to conform to the general principles and priorities laid down in the framework law, and that deviations can be challenged in a court of law.

## III. How will the law be enacted?

1. Given the present constitutional division of legislative powers between the Union and the States, it will be necessary to follow the procedure adopted in the case of the Water (Control and Prevention of Pollution) Act 1974, or more recently in the case of the Dam Safety Act 2010, i.e., a certain number of State assemblies can be persuaded to pass resolutions and then the Centre can enact this law. An Act so passed will be applicable to the States that had passed the resolution and to other States that adopt the Act. There is every reason to believe that most States will adopt the Act, and that the Act will become truly national.
2. The alternative - a more difficult route - is to wait for water to be moved to the Concurrent List first, and then get this law enacted by Parliament.
3. As water is not in the concurrent List now, the draft proceeds on the assumption that only the first route is available.

## THE NATIONAL WATER FRAMEWORK ACT (DRAFT)

AN ACT to provide a broad overarching national legal framework of general principles on water as a vital and stressed natural resource, under which legislation and executive action on water at all levels of governance, as also water-use and actions relating to water by citizens, their associations and voluntary agencies, public and private institutions and bodies corporate of all kinds, can take place, and for matters connected therewith.

WHEREAS water is essential for the sustenance of life in all its forms; an integral part of the ecological system, sustaining and being sustained by it; a basic requirement for livelihoods; a cleaning agent; a necessary input for economic activity such as agriculture, industry, and commerce; a means of transportation; a means of recreation; an inseparable part of a people's landscape, society, history and culture; and in many cultures a sacred substance, being venerated in some as a divinity;

AND WHEREAS water in all its forms constitutes a hydrological unity, so that human interventions in any one form are likely to have effects on others;

AND WHEREAS water is a finite substance in nature, the same quantum circulating through the hydrological cycle for millennia; and water used for any purpose returns as waste or sewage or residue or effluent, often in unusable form, and sometimes contaminating water sources;

AND WHEREAS freshwater is coming under increasing pressure because of the growth of human population and the processes of urbanisation and economic growth, leading to over-use/depletion, abuse, waste, scarcity, conflicts, pollution, and overall unsustainability of the resource itself and of the ecological system of which it is a part;

AND WHEREAS there are many different perceptions of and perspectives on water among people, States and groups, leading to divergences in approach, policy, doctrine, principle, law and institutional arrangements;

AND WHEREAS having regard to the foregoing it is desirable that there should be a broad national consensus on certain general approaches, concerns, directions, and principles, while leaving room for differences from State to State and from locality to locality, so as to bring about the prudent, wise, equitable, socially just, conflict-free, efficient, and sustainable use of water for a number of purposes;

Be it enacted by Parliament in the ......year of the Republic of India as follows:-

## 1. Short Title, Extent and Commencement

(1) This Act may be called the National Water Framework Act (2011?).
(2) It applies in the first instance to the whole of the States of.............. and the Union territories; and it shall apply to such other States as adopt this Act by resolution passed in that behalf under clause (1) of Article 252 of the Constitution.
(3) It shall come into force, at once in the States of......... and in the Union territories, and on the date of adoption in any other State which adopts this Act under clause (1) of Article 252 of the Constitution.

## 2. Definitions

In this Act, unless the context otherwise requires,
"aquifer" means a subsurface layer or layers of geological strata of sufficient porosity and permeability able to hold or transmit water;
"basin State" means a State the territory of which includes any portion of a river basin;
"catchment", in relation to a river or stream or water body, means the area, the water from which, in the natural course, flows into that river or stream or water body;
"common pool resource" means a natural resource which, by its nature, is such that it is available for use by all the members of a village or other group or community, without exclusions of any kind, and the use of which by any individual or group diminishes the availability for others;
"common property resource" means a resource owned in common by a village or group or community, as distinguished from private ownership or ownership by the state;
"consultative" means "in consultation with the people or the community";
"corporatisation" means the conversion of a government body or agency into a company or corporation;
"full cost recovery pricing" or "full economic pricing" means pricing a good or service so as to recover all the costs, direct and indirect, including both Operation and Maintenance costs and capital-related costs, involved in the production and/or supply of that good or service, without any concession or subsidisation or under-pricing of any kind;
"good water quality status" means water quality conforming to such standards as may be prescribed for the purpose;
'groundwater' means water which exists below the ground surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers;
"hydrological cycle" means the water cycle from precipitation, through surface runoff or the retention of water in the atmosphere or soil, or seepage or percolation underground, on to evaporation from land and sea or evapo-transpiration from plants, back to precipitation;
"hydrological unity" means the unity constituted by water in all its forms including rainfall, snowfall, snow on mountains, glaciers, atmospheric or soil moisture, groundwater, lakes, ponds and other surface water bodies, rivers and streams, and wetlands;
"livelihood" means an activity or occupation or employment including self-employment that provides sustenance to an individual or family;
"participatory" means "involving the active association and involvement of the people or the community in policy-formulation, project-planning or implementation, or activity, scheme, programme, project or institutional arrangements of any kind";
"precautionary principle" means the principle that advocates the adoption of a cautious approach, including anticipatory preventive or mitigatory action, towards an activity that holds the possibility of causing harm to human beings or the environment, even if that possibility is not fully established scientifically, with the onus of proving that there will be no such harm resting on the proposer of the activity;
"prescribed" means "prescribed by rules made under this Act, or, in the case of water quality standards, under the Water (Prevention and Control of Pollution) Act 1974";
"privatisation" means the transfer of a government body or institution or a public enterprise to private ownership, or the transfer of a governmental or public sector activity to a private body;
"public trust" means the doctrine that the state holds natural resources in trust for the community;
"river basin" means the total area within which whatever precipitation or runoff occurs will, except for evaporation, evapotranspiration and seepage into the ground, eventually find its way to the river or one of its tributaries;
"State" with a capital 'S' means a State in the Indian Union;
"state" with a lower case 's' means state in the abstract, e.g., state as distinguished from society;
"state at all levels" means the state at the three levels envisaged in the Constitution, namely, the Union, the States and the local level of panchayati raj institutions and nagarpalikas;
"sustainable use" or "sustainability" means the kind and level of use of water or other natural resource that ensures the continued availability of that resource for the present and future generations, without depletion or deterioration or dysfunctionality, and the continued healthy functioning of the related ecological system;
"water as commodity" means water considered as a substance or object that can be traded, bought or sold;
"water as economic good" means water considered as a good that is scarce in relation to wants and needs, can be put to alternative uses, and has an opportunity cost or exchange or marketable value in some uses;
"water as social good" means water used for certain common or social or general purposes and not for the benefit of particular individuals or groups, for instance water for use in public hospitals or public educational institutions or public parks and gardens, or for municipal purposes such as firefighting or street-washing;
"water footprint" means the total volume of water used direct or in the form of goods and services embodying water, by an individual or community or country as a whole, or by an industry or business in its production or other commercial activity;
"water for life" means the water required for human survival, including drinking, cooking, bathing, personal hygiene, sanitation, and related personal or domestic uses, with an addition for women's special needs; as also the water required for survival by livestock and other animals and birds, and by wildlife;
"water-harvesting" means capturing and conserving rainwater or retarding run-off locally through various small-scale structures either for
the direct use of the stored waters or for re-charging groundwater aquifers;
"watershed" means the ridge or line of high land separating two areas such that rainwater falling on one side of the line drains on that side and cannot pass to the other side; by extension, the area bounded by the ridge; generally used to denote a small local area bounded by low ridges, but sometimes also a large area bounded by high hills, including a riverbasin; and
"wildlife" means wildlife as defined in The Wildlife (Protection) Act 1972.

## 3. Water: Heritage, Ecology, Equity

(1) (a) Water is a common natural heritage of humanity and shall be used, protected and preserved as such.
(b) It shall be the duty of the state at all levels, the citizens, and all categories of water-users, to protect, preserve and conserve all water sources, and pass them on to the next generation.
(2) (a) Rivers, water bodies, aquifers and wetlands shall be recognised as ecological systems in themselves and as parts of larger ecological systems, and protected from over-use/depletion, abuse, pollution/ contamination, and degradation.
(b) There shall be minimum interference in existing natural river flows; in the natural state of water bodies and wetlands; and in flood-plains and river-beds which shall be recognised as integral parts of the rivers themselves.
(c) Rivers shall be protected from construction on their flood-plains and sand-mining on their beds.
(d) Where river-flows, water bodies, aquifers, wetlands, flood-plains or river-beds have already been interfered with, efforts shall be made to stop further interference, and reverse the adverse impact of interferences already made, to the utmost extent possible.
(e) The disposal of waste and discharge of pollutants and contaminants into rivers, water bodies and wetlands shall be minimised quickly, and stopped as early as possible.
(3) (a) As water is part of the ecological system and is dependent on its healthy functioning, the protection and preservation of the integrity of that system, its regenerative and assimilative potential, and its ability to provide water, shall have overriding primacy in all policy and action relating to water.
(b) The principle of sustainable use shall govern all categories of water use.
(4) Water shall be recognised as a bounty of nature to be shared by humanity with all other forms of life, with fellow humans of one's own and other groups, villages, States and countries, and with future generations.
(5) Ecological considerations, social justice and equity shall be the prime principles governing water policy, plans and management, having regard to the essentiality of water for life, its importance for livelihoods and economic activity, and its proneness to become the subject of conflict.

## 4. Water as Sustainer of Life

(1) Water in its primary aspect as a sustainer of life shall take precedence over water in any other aspect.
(2) Other uses of water, such as agricultural, industrial, commercial, and others, though important, shall not be such as to jeopardise or diminish the role of water as sustainer of life.

## 5. Water as Common Pool Resource

Notwithstanding anything contained in any other law, water, that is to say, water in its natural form, such as river, stream, spring, natural surface-water body, aquifer and wetland, is neither state property nor
private property but a common pool resource of the community to be managed by the community or by the state for the community.

## 6. Water as Public Trust

(1) The state shall hold water in public trust for the people. It shall exercise its legislative and executive powers in relation to water in the capacity of trustee for the people.
(2) The ultimate responsibility of the state as public trustee shall remain even if some of the functions of the state in relation to water are entrusted to any agency, public or private or joint.

## 7. Water as a Scarce Resource

(1) Having regard to the growing pressure on the finite availability of freshwater in nature, the prime principles governing water-use of all kinds shall be equity, economy, efficiency, minimisation of waste, resource-conservation, and ecological sustainability.
(2) The theft of water from public supply systems, the unauthorised power-driven lifting of water from rivers, lakes and other water bodies and from aquifers, and the pumping of water from river beds, shall be prevented through stringent measures, while ensuring that such measures do not have the effect of impinging on the right to water for life assured in Section 10 of this Act or the social justice provisions of Section 20 of this Act.
(3) It shall be the duty of the state at all levels, the citizens, and all categories of water-users, to endeavour to reduce their water footprint at every level, and thereby the water footprint of India.

## 8. Basin and Aquifer as Guiding Frameworks

(1) Every water-related activity in any part of a river-basin, or a subbasin of a large basin, whether it is a large project involving a dam, reservoir and canal system, or a diversion barrage, or a small-scale local water-harvesting structure, or the extraction of groundwater, shall be undertaken with due regard to:
(a) the hydrological and ecological characteristics and features of the basin or sub-basin as a whole;
(b) the land-use appropriate to the relevant area;
(c) the relationship between surface water and groundwater; and
(d) a holistic view of the relationships of all such activities with one another and with the basin or sub-basin as a whole.
(2) The optimal utilisation of waters within a river basin shall be ensured, with due regard to the reasonable present and future needs for life and livelihoods, appropriate economic activity, social justice and equity, and ecological sustainability.
(3) River-flows adequate to preserve and protect a river basin as a hydrological and ecological system shall be maintained.
(4) (a) It is only after ensuring full conformity to the principles stated in sub-sections (1) to (3) of this section, that any inter-basin transfer of waters shall be considered.
(b) Such a transfer, if found necessary, shall be made only with the consent of the parties concerned, and after due consideration of its environmental, ecological, cultural, social and human implications, as determined in an independent, objective and professional manner.
(5) The extraction of groundwater in any manner in any area shall be undertaken with due regard to the hydrogeological and ecological characteristics and features of the aquifer as a whole.
(6) In all water-related activities, due regard shall be had to the relationship between the river-basin or sub-basin and the aquifer.
(7) Appropriate institutional arrangements, as elaborated further in Section 14 below, shall be established to ensure coordination and harmonisation at the basin level, aquifer level and between basin and aquifer.

## 9. Water-use and Land-Use

(1) Water-use decisions shall have due regard to the land-use appropriate to the relevant area, and in turn, the proper land-use for an area shall be decided with due regard to the availability of water.
(2) In decisions on land-use for various purposes, due regard shall be had to the protection of water sources, catchments, and drainage paths.
(3) Where water sources, catchments or drainage paths have already been interfered with, efforts shall be made to stop further interference, and reverse the adverse impact of interferences already made, to the utmost extent possible.

## 10. Right to Water

(1) Every human being, and livestock or other domestic animal or bird, shall have the right to sufficient and safe water to meet the requirement of water for life.

Note: The quantity and quality of water that is considered sufficient and safe to qualify as water for life shall be as prescribed.
(2) The right to water for life shall take precedence over water rights, if any, for other uses including agricultural, industrial, commercial, municipal, and recreational uses.
(3) In the case of tribal and other communities dependent on traditional natural water sources including rivers, streams, lakes, springs, and others, the right to water for life shall include their right of access to those sources.
(4) The state at all levels shall ensure the realisation of the right to water for life, and monitor and review it periodically, through a participatory and transparent process.
(5) In the case of wildlife, their access to their natural water sources and the natural availability of water to them, shall not be adversely affected by human actions, plans or projects.

## 11. Priorities in Water Allocations

(1) In all allocations of water by governments at any level, or by any other duly authorised body or agency or institution, public or private, the first and over-riding priority shall be for water for life, followed by water required for all other uses, viz., water for livelihoods for vulnerable sections, water as a social good, and water for agricultural, industrial, commercial, recreational and other uses.
(2) The inter se priorities in allocations for different water-uses other than water for life shall be as determined by the appropriate authorities or agencies with reference to local circumstances such as local climate, land and soil characteristics, water availability, prevalent activities and livelihoods, and the land-uses indicated by those circumstances.

## 12. Water Conflicts: Inter-State River Water Disputes

(1) Appropriate institutional arrangements, as elaborated further in section 14 below, shall be established at all levels within the State and beyond up to an inter-State river-basin, to obviate and/or resolve emerging inter-State river-water disputes through negotiations, conciliation or mediation, or other such means, at the earliest stages before the disputes become acute, so as to avoid recourse to adjudication as far as possible.
(2) In such efforts, and in the event of adjudication under the Inter-State Water Disputes Act 1956 (as amended in 2002) if it becomes necessary, the following broad principles shall be kept in view.
(a) None of the States in a river-basin owns the river; all of them have use rights.
(b) All basin States in a river system are equal in rightsstatus, and there is no hierarchy of rights among them, and further, in this context, equality of rights means not equal but equitable shares in the river waters, as stated in subsection 2 (e) of this Section.
(c) The upper basin-State shall adopt a cautious and minimalist approach to major interventions in inter-State rivers; provide advance information to the lower basin-States about plans for intervention; consult them at all stages on possible impacts; and take care to avoid significant harm or injury to them.
(d) In an inter-State river system, all basin States shall cooperate in good faith in the equitable, prudent and holistic use of the river waters for the benefit of all.
(e) Where a State-wise allocation of the waters of an interState river becomes necessary, such allocation shall be governed by the principle of equitable sharing for beneficial uses.
(f) The principle of equitable sharing for beneficial uses implies that the upper basin-State shall respect the legitimate needs and claims of the lower basin-State, and that the latter shall recognise the legitimate needs of the former, and further that the former shall refrain from causing harm to the latter, and the latter shall not seek a veto on upstream uses.
(g) The relevant factors to be considered for equitable sharing in terms of sub-sections (e) and (f) of this section shall include but shall not be limited to:
(i) geographic, hydrographic, hydrological, hydrogeological, climatic, ecological, and other natural features;
(ii) the social and economic needs of the basin States concerned;
(iii) the population dependent on the waters of the inter -State river basin in each basin State;
(iv) the effects of the use or uses of the waters of the river basin in one basin State upon other basin States;
(v) existing and potential uses of the waters of the inter-State river basin;
(vi) the conservation, protection, and economical use of the waters of the inter-State river basin;
(vii) the availability of appropriate alternatives to the particular planned or existing use;
(viii) the sustainability of proposed or existing uses; and
(ix) the minimisation of environmental, social or human impacts of proposed uses.
(h) The weight of each factor mentioned in sub-section (g) above shall be determined in each case in accordance with the relevant circumstances of the case. In determining what is a reasonable and equitable use, all relevant factors are to be considered together and a conclusion reached on the basis of the whole.
(i) The sharing shall be only of water that is available for sharing after the ecological functions of the river are ensured.
(j) In any settlement by agreement or adjudication on an inter-State river waters dispute, the principles and modalities of sharing the waters in a difficult year of low flows shall be clearly laid down.
(k) Adjudication, wherever necessary, shall be pursued with goodwill and a willingness to find an acceptable answer to the dispute, including the possibility of an agreed settlement. (3) The resolution of inter-State river-water disputes, whether by agreement or by adjudication, is not a one-time settlement but shall be recognized as a continuous process of conformity to the spirit of the settlement, and ensuring this shall be among the responsibilities of the institutional arrangements referred to in sub-section (1) of this section.
(4) Data of all kinds needed for the purposes of sub-sections (1) to (3) of this section shall be freely shared by the States concerned and put in the public domain for the information of all without any restrictions on the grounds of confidentiality or secrecy.

## 13. Water Conflicts: Other Kinds

(1) All efforts shall be made through appropriate institutional arrangements at all levels to prevent a water-related dispute or conflict from arising between or among different water-uses, or different groups or classes of users, or different areas, and when a dispute or conflict does arise, to settle it through negotiations, conciliation or mediation, or other such means, before the dispute or conflict becomes acute, so as to avoid recourse to litigation as far as possible.
(2) All such efforts shall be guided by the principles and priorities laid down in Sections 4, 10 and 11 of this Act.
(3) Data of all kinds needed for the purposes of sub-sections (1) and (2) of this section shall be freely shared by the authorities concerned and put
in the public domain for the information of all without any restrictions on the grounds of confidentiality or secrecy.
(4) The institutional arrangements envisaged in sub-section (1) of this section shall be made at all levels and scales from micro-watersheds to sub-basins or basins or aquifers, on the lines outlined in Section 14 below.
(5) Existing water-related conflicts or disputes shall be reviewed and appropriate action taken in the light of the provisions of this Act.

## 14. Institutional Arrangements

(1) The institutional arrangements envisaged in earlier sections for
(a) basin-level, aquifer-level, and basin-aquifer coordination and harmonisation (section 8),
(b) ensuring the right to water for life (section 10),
(c) allocation and priority decisions (section 11),
(d) obviating and resolving inter-state river-water disputes (section 12), and
(e) obviating and resolving other kinds of water-related disputes and conflicts (section 13),
may be several parallel ones or one integrated structure as appropriate.
(2) (a) The institutional arrangements referred to in sub-section (1) of this section, whether several parallel ones or one integrated structure, shall be built from the village or micro-watershed level federating upwards in a nested series to the sub-basin or basin level, with arrangements for inter-State coordination in the case of basins spread over more than one State.
(b) In designing the institutional arrangements, due regard shall be had to harmonising administrative and hydrological divisions.
(3) At every level in the nested structures referred to in sub-section (2) of this section, the institutional arrangements shall be representative of all
those concerned including, as appropriate, all categories of water-users, government administrators and technical personnel, and academics and experts outside the Government, and shall be fully participatory.
(4) (a) The institutional arrangements that are adopted shall have equity, social justice, resource-conservation and ecological sustainability, as their overarching concerns, and shall be guided by basin hydrology and ecology in all their decisions.
(b) The principles of transparency and accountability shall be central to the design and implementation of institutional arrangements.
(5) Existing institutional arrangements such as water-users' associations, village watershed committees, pani panchayats, and others, including those which are being planned and those which have been set up under other laws but are not yet fully operational, shall all be reviewed to ensure conformity to the provisions of sub-sections (1) to (4) of this section and other relevant sections of this Act.
(6) In particular, the need for a State-level Water Resources Regulatory Authority and the nature of the regulation that is envisaged shall be carefully reviewed in the light of sub-sections (1) to (4) of this section, and if such an institution is found necessary, care shall be taken to ensure the following:
(a) that it is a truly autonomous, professional, interdisciplinary body, with managerial, professional, mediatory and adjudicatory capabilities built in;
(b) that it is truly consultative and participatory in its composition and functioning, and that representatives of civil society are associated with it at all levels and at every stage;
(c) that it is decentralised in its own functioning and is also consistent with the constitutional scheme of democratic decentralisation; and
(d) that its mandate and functioning are in harmony with the provisions of this Act.
(7) (a) The institutional arrangements shall conform to the principle of subsidiarity, i.e., the principle that decisions shall be taken at the lowest appropriate level.
(b) The appropriate level for decision-making shall be determined with reference to the nature of the decision, the knowledge and expertise needed, and the implications of the decision for other levels.
(8) In establishing institutional arrangements due regard shall be had to the Model Bill for a State-level Water Regulatory System circulated by the Central Government.

## 15. Major Water Projects

(1) All large projects involving dams or barrages or other structures on rivers to store or divert their waters for irrigation, hydroelectric power generation, flood control, or other purposes, including run-of-the-river projects, shall be guided by a cautious, minimalist approach, and by the precautionary principle as regards their environmental, ecological, social, human and other impacts and consequences.
(2) Strong and exceptional justification shall be needed to permit any proposed interference with the natural flows of rivers by dams, barrages or other structures on the river.
(3) A large project of the kind mentioned in sub-section (1) of this section shall be selected only if, after an assessment of all options available for achieving the objectives in view, such a project is found to be the unique solution or the best of all available options in the given case.
(4) Least environmental impact and no or minimum displacement of people shall be important selection criteria in the decision-making on such projects. The options assessment referred to in sub-section (3) of
this section shall include non-displacing or less-displacing alternatives to a proposed project.
(5) The decision on a project shall be based on the free, informed prior consent of the people likely to be affected by the project in any manner, and also on fully independent, professional, rigorous, comprehensive and objective Environmental Impact Assessment studies, including cumulative Environmental Impact Assessment studies if there are multiple projects on a river system.
(6) The people likely to be displaced or otherwise affected in any manner by a project shall have the first claim on the benefits expected from the project.
(7) The policies and measures of resettlement and/or rehabilitation of people likely to be displaced or otherwise affected in any manner by a project shall be such as to ensure the enhancement or at least the maintenance of their earlier living standards and quality of life.
(8) Construction activity on a project shall proceed pari passu with environmental remedial/compensatory/mitigatory actions and resettlement/rehabilitation measures, in the sense that progress on such actions and measures shall determine the pace of construction activity and that the latter shall not proceed ahead of the former.

## 16. Groundwater

(1) Notwithstanding anything contained in any other law, groundwater, like surface water, shall be regarded as a common pool resource held in public trust by the state.
(2) (a) Groundwater extraction shall be brought under regulation for ensuring equity, resource-conservation, and water quality.
(b) Such regulation may be through various means as appropriate, including control through the electricity tariff, the restriction of the availability of electricity for groundwater-pumping for agricultural use to
a certain number of hours, and the community management of groundwater as a common pool resource.
(3) For the purpose of the community management of groundwater, all aquifers shall be mapped and delineated through a participatory effort, drawing upon local, traditional knowledge, modern knowledge including hydrogeology, engineering and satellite imagery, and the social sciences.
(4) Aquifer-users' associations shall be formed for the sustainable management of the aquifers and the conservation of the resource.
(5) The objective of programmes for the artificial recharge of groundwater shall be to offset a part of the depletion that has occurred, and not to provide more water for wasteful use.
(6) In establishing institutional arrangements for groundwater management, due regard shall be had to the Model Bill for the Conservation, Protection, and Regulation of Groundwater circulated by the Central Government.

## 17. Local Water Augmentation and Management

(1) Decentralised local rainwater-harvesting and micro-watershed development shall be the preferred route for water augmentation and management, and shall be undertaken wherever technically and socially feasible.
(2) In undertaking the activities referred to in sub-section (1) of this section, due regard shall be had to the suitability of the location chosen for structures, possible downstream impacts, and harmony with basin hydrology and ecology.
(3) Such efforts shall be based on local community knowledge and traditional wisdom as well as modern science.
(4) Customary laws which form part of such traditional wisdom and practices shall be given due recognition by the state, provided they are non-discriminatory.
(5) Institutional arrangements shall be made and social sanctions used (a) to ensure the prudent, economical, equitable and resource-conserving use of the water harvested by diligent effort by the local community, (b) to avoid or minimise disputes and resolve them when they arise, and (c) to protect the harvested water from appropriation by some to the detriment of others.
(6) Such local efforts and initiatives shall be inclusive, equitable and nondiscriminatory.
(7) The state at all levels shall formally recognise and encourage local initiatives for rainwater-harvesting and micro-watershed development.
(8) Effective working relationships shall be established between the informal community institutions for water-related activities and the formal institutions of local governance, i.e., the Panchayati Raj Institutions.

## 18. Water Services: Corporatisation, Privatisation

(1) Water supply, being an essential service and a fundamental right, shall be the responsibility of the state.
(2) If for any reason the state wishes to entrust this responsibility to an autonomous or corporate body, public or private, this shall not affect people's fundamental or human rights in any manner.
(3) The state's responsibility for ensuring people's right to water shall remain despite corporatisation or privatisation of water services.
(4) The privatisation of the service, if considered necessary and appropriate, shall not lead to the privatisation of the resource.
(5) Considerations of profitability shall not override such social conditions and obligations as are imposed on the autonomous or corporate body as a part of the corporatisation or privatisation of water services.

## 19. Water Markets

(1) Water markets shall not be encouraged to flourish and proliferate in an uncontrolled manner, but may be allowed to function subject to careful regulation in the interests of equity, social justice, resourceconservation and the protection of the aquifer.
(2) In particular, the bottled water and soft drinks industries shall be reviewed to ensure (a) that the need for bottled water is reduced by the better provision of adequate, safe and reliable water supply through public systems; (b) that the industries' draft of raw water from water sources of any kind for processing is not such as to affect adversely the availability of water for life or livelihoods in the community dependent on the water source in question; and (c) that the disposal of process material and waste or reject water does not have an adverse impact on the water source or on the soil in the surrounding area.

## 20. Water Pricing

(1) The pricing of water shall be based on a differential pricing system in recognition of the multiple roles of water as fundamental right, social good, economic good, and part of history, culture and religion.
(2) (a) Water used for commercial agriculture and for industry or commerce is an economic good, and may be priced on the basis of 'full cost recovery' or full economic pricing, or higher if needed and appropriate in a given case.
(b) Water used for subsistence or vulnerable livelihoods may be priced at such rates as may be considered appropriate in the relevant socioeconomic circumstances.
(3) Water as a social good may be priced at such rates as may be considered appropriate.
(4) Water as a fundamental right and a part of the right to life, shall not be denied to anyone on the ground of inability to pay.
(5) For domestic water supply, a graded pricing system may be adopted, with 'full cost recovery' pricing for the middle-income and high-income groups, affordable pricing for those below that level, and a modicum of free supply to the very poor, or alternatively, a minimal quantum of water may be supplied free to all.
(6) There should be prohibitive penalties to discourage profligate use, and the service should be denied beyond a certain limit.
(7) The pollution of water sources and supplies should be severely discouraged through the 'polluter pays' principle, the payment by the polluter being equal to what is required to restore the pre-polluted condition, and it should at the same time be ensured that the principle is not distorted to mean that payment authorises pollution.
(7) Decisions by the State Governments, local bodies (PRIs and nagarpalikas) or other agencies on actual pricing systems and their operation shall be broadly guided by the principles set forth in subsections (1) to (6) of this section, with flexibility for variations in the light of the relevant circumstances.

## 21. Water and Women

(1) The state at all levels shall take all appropriate steps to protect the rights, interests, and special water and sanitation needs of women.
(2) The access of villages to nearby sources of water shall be improved, making it unnecessary for women to bring water from distant sources.
(3) Women shall be full participants in all water-related institutions at all levels, and their participation in such bodies shall be non-exclusionary, with no reference to title to property or other restrictive criteria.
(4) The state at all levels shall endeavour to enhance the effectiveness of the participation of women in all water -related institutions.

## 22. Water Quality and Pollution

(1) Subject to the provisions of the Environment (Protection) Act 1986 and Water (Control and Prevention of Pollution) Act 1974, the approach to the prevention and control of pollution and contamination of water sources shall include: (i) reducing water-use in all categories of use; (ii) minimising the generation of waste in all water uses; (iii) recovering, to the extent possible, water for some uses from waste; and (iv) ensuring that nothing that does not meet certain stringent quality standards, to be prescribed, is allowed to enter water sources.
(2) (a) In all water supply systems, rural or urban and public or private, good water quality status, that is to say, water quality conforming to such standards as may be prescribed, shall be achieved throughout the country by (2020).
(b) Water quality in all rivers, streams, surface water bodies, aquifers and other water sources throughout the country, shall be enhanced by (2020) to conform to such standards as may be prescribed.
(c) The health of those rivers, streams, surface water bodies, aquifers and other water sources throughout the country that are heavily polluted and/or contaminated shall be restored by (2020) through special programmes.

## 23. Drought

(1) The answer to the problems of water-short, arid or drought-prone areas shall be primarily local, and it is only after exploring all local possibilities, or determining that there are no such possibilities, that recourse to water from external sources may be considered.
(2) In drought-prone or arid areas, the pursuit of economic development shall be primarily through routes other than water-intensive industry or agriculture.

## 24. Floods

(1) In relation to periodical river floods, the emphasis shall shift from structural flood-control measures to the following approach:
(a) learn to live with periodical river floods and minimise loss and damage;
(b) ensure that land-use practices are such as to minimise and not aggravate the adverse impact of floods;
(c) install adequate and timely advance warning systems;
(d) be ready with disaster avoidance and management plans;
(e) learn relevant lessons from traditional coping practices;
(f) if dams are built for flood moderation among other purposes, ensure that a flood cushion is built in and actually maintained;
(g) as far as possible, refrain from confining a river within embankments; and
(h) make flood control and embankment projects, if any, subject to the requirement of Environmental Impact Assessment studies under the Environment Protection Act 1986 and the EIA Notifications thereunder.
(2) A vast, well-equipped, technologically advanced network of stations for observing and analysing precipitation and flows and drawing conclusions, and for the instant ('real time') communication of such information and predictions to downstream areas, shall be established by expanding existing facilities and enhancing their quality and technological status.
(3) Timely information is necessary but not enough; it shall be followed by prompt, adequate, equitable, efficient and humane response.
(4) The thrust of the relief programme shall be, not to reduce people to a state of dependence, but to enhance their ability to help themselves. (5) Potential or actual conflicts in the context of dealing with floods or administering flood-relief measures, arising between upstream and downstream areas within a State, or between upstream and downstream States, shall be obviated or minimised or resolved by consultations in advance, timely sharing of information, and cooperative or joint efforts and institutional arrangements.
(6) Interferences with natural channels and drainage paths that result in the blocking of storm water drainage and cause or aggravate urban floods shall be avoided.

## 25. Climate Change and Water

While further studies and research may be needed for obtaining detailed, precise and area-specific information on the impact of climate change on water resources, and on the vulnerabilities of certain areas and settlements such as coastal or low-lying areas, anticipatory action for mitigation and adaptation need not wait for those studies, but shall be taken in hand immediately.

## 26. National Water Information System

(1) To design and build an excellent, nation-wide, detailed, professional water information system, a National Water Information Agency (NWIA) shall be set up.
(2) The water information system shall have close linkages with the other related information systems, such as those relating to meteorology, land, forests, agriculture, tribal communities, industries, etc.
(3) All water-related information shall be open and accessible to all, and shall not be denied to anyone on the grounds of confidentiality or secrecy.

## 27. Existing Water-related Legislation and Reforms

(1) All existing water-related laws at the Central and State levels shall be reviewed and amended where necessary to ensure conformity to the provisions of this Act.
(2) All water-related reforms already initiated and those that are about to be undertaken shall be reviewed in the light of the provisions of this Act and the necessary changes made to ensure conformity to those provisions.

## 28. Compliance, Deviations and Remedies

(1) (a) Water-related legislation and/or executive orders or action by the state at all levels, as also water-use and actions relating to water by citizens, their associations and voluntary agencies, public and private institutions and bodies corporate of all kinds, shall conform to the provisions of this Act.
(b) The NWIA referred to in section 26 of this Act shall also monitor the state of compliance with the principles laid down in this Act and submit reports to the state at all levels.
(2) The state at all levels shall ensure the availability of effective administrative and legal remedies for those whose legal rights under this Act have been violated, and for those who suffer or are under a serious
threat of suffering damage arising from programs, plans, projects, or activities relating to water.
(3) Remedies under this Section shall, as appropriate, provide for preventive measures to obviate damage to persons, property, the environment or the ecological system arising from non-compliance with or deviations from the provisions of this Act; in the event of such noncompliance or deviation, penalties for the same, and/or compensation for the consequences; criminal prosecution of offenders; and any other appropriate remedy in accordance with the provisions of any other law for the time being in force.

