AN INSIGHT ON LEGAL ASPECT OF GROUND WATER USE BY INDUSTRIES AND WATER TAX / RATE / FEE

1. Meaning of Ground Water

- Water located beneath the ground surface.

  Groundwater is water that is found underground in the cracks and spaces in soil, sand and rock. Groundwater is stored in and moves slowly through layers of soil, sand and rocks called aquifers. Aquifers typically consist of gravel, sand, sandstone, or fractured rock, like limestone. These materials are permeable because they have large connected spaces that allow water to flow through. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected.

  The area where water fills the aquifer is called the saturated zone (or saturation zone). The top of this zone is called the water table. The water table may be located only a foot below the ground's surface or it can sit hundreds of feet down.

2. Meaning of Sub-soil Water

Layer (stratum) of earth immediately below the surface soil, consisting predominantly of minerals and leached materials such as iron and aluminum compounds. Humus remains and clay accumulate in subsoil, but the teeming macroscopic and microscopic organisms that make the topsoil rich with organic matter spend little time in the subsoil layer. Below the subsoil is a layer of partially disintegrated rock, and underlying bedrock. Stripping topsoil while clearing land for crop growth or commercial development exposes the subsoil and increases the rate of erosion of soil minerals.

That part of the soil below the layer normally used in cultivation to the depth to which most plant roots grow. The term is rarely used in soil science, where it would be termed a C horizon.

The bed or stratum of earth which lies immediately below the surface soil.

Material at the base of the soil profile, usually slightly discoloured parent bedrock.

The mineral soil of decomposed rocks, without any humus, that lies beneath the topsoil.

Subsoil (also call substrata) is the layer of soil under the topsoil on the surface of the ground. The subsoil may include substances such as clay and/or sand that has only been partially broken down by air, sunlight, water, wind etc., to produce true soil. Below the subsoil is the substratum, which can be residual tobol, sediments, or Aeolian deposits, largely unaffected by soil-forming factors active in the subsoil. It contains partially weathered particles. It is usually a lighter shade of tobol. It contains the deeper roots of large plants, like trees, but otherwise not much lives here.

From the above it is clear that subsoil water is different from Ground Water. Government of Orissa water source department bring subsoil water in taxing categories. As ground water is not come in the preview of subsoil water, the demand raised by water source department, Govt. of Orissa is illegal.

3. Ownership Right on Ground Water

- Source Based Rule

  - Power of the State – Individuals have controls over groundwater.

  - Individual's rights – Groundwater is part and parcel of the land and there is no separate title of ownership over groundwater. So, the landowner has the right to collect and dispose of all the water under his land.

- **Water Rights determined by Land Right**

  Water rights are closely linked to land rights. Traditionally, water rights were determined by land rights. For instance, the development of principles such as riparian doctrine which gives water rights to those who has land sharing borders with a river or streams is a good example to demonstrate this feature. Even now, this is an important feature of water law. This is evident in the case of groundwater where rights of landless people are almost out of question. Similar feature can be seen in new irrigation laws where only land owners can become a member of user associations.

- **Water ownership**

  India does not have any specific law defining ownership and rights over water sources. The rights are derived from several legislations and customary beliefs.

  However, the legal position on whether groundwater is a resource meant for public use is fuzzy, and India has no law that explicitly defines groundwater ownership (Orissa did amend its irrigation Act to assert State right over groundwater, but this has been challenged in court).

  Some grounds for determining groundwater rights are provided by the Indian Easement Act of 1882.

  An 'easement' is a right that the owner or occupier of certain land possesses, for beneficial enjoyment of that land. Examples of easements are right of way, right to light and air, and right to standing or flowing water not on one's land.

  Section 7(g) of the Indian Easement Act states that every landowner has the right to "collect and dispose" of all water under the land within his own limits, and all water on its surface that does not pass in a defined channel. Hence, by this Act, the owner of a piece of land does not, strictly speaking, "own" the groundwater under the land or surface water on the land; he only has the right to collect and use the water.

  However, it is customarily accepted across India that a well on a piece of land belongs to the owner of that land, and others have no right to extract water from the well or restrict the landowner's rights to use the water.

  This belief and practice is indirectly supported by various laws such as land Acts and irrigation Acts that list all things on which the government has a right. These Acts do not mention groundwater.

  Interpretations of the Transfer of Property Act of 1882 and the Land Acquisition Act of 1894 also support the position that a landowner has proprietary rights to groundwater; it is connected to the 'dominant heritage' (land) and cannot be transferred apart from the land.

4. Regulating authorities which regulate water used by industries.

- **Ministry of Water Resource (MoWR)** – It is the principle agency responsible for water in India but water pollution does not fall under its purview, nor does the industrial use of water.

- **Ministry of Industry (MoI)** – It is concerned with the planning and development of water resources for industrial use. It has no mandate to control or regulate the water use by industries.

- **Central Ground Water Board / Authority (CGWB / A)** – Meant to regulate the groundwater quality and quantity in the country. Though they have mandate to do what they can with groundwater, they have so far only mapped the groundwater status. They have no mandate to charge industrial groundwater use.

- **Ministry of Power (MoP)** – Entrusted with development of hydroelectricity, but has no mandate to look after either water consumption or water pollution by the thermal power plants. And this despite the fact that they consume as much as three-fourths of the total industrial water in the country.

- **Water Quality Assessment Authority (WQAA)** – Frustrated with the multiplicity of agencies MoEF & MoWR decided to set up this apex body to compile information on water quality and monitor the function of the agencies. But since its constitution, WQAA has only met twice and no progress has been made on its agenda.

- **Ministry of Environment & Forests (MoEF)** – It is concerned with the quality of surface and ground water. But it has no mandate to control use of water as raw material. But it has no mandate to handle water scarcity, nor any power to resolve water conflicts.

- **Central and State Pollution Control Board (CPCB) & (SPCB)** – These regulate industrial water pollution and charge water cess based on the amount of wastewater discharged by the companies. But they have no mandate to control sourcing of water from various sources.

- **Ministry of Rural Development (MoRD)** – Its responsibilities are: watershed development, the Million Wells Scheme, the Rajiv Gandhi National Drinking Water Mission and developing the source of drinking water in rural areas. but ensuring availability of water and testing for water contamination is no its responsibility.

- **Ministry of Urban Development (MoUD)** – It is responsible for drinking water in urban areas but does not have the mandate to monitor, regulate or charge water used by industries in urban areas.

5. Method of Ground Water pricing for industries

As said above, the CGWB has circulated the pricing policy but the basis for arriving at values is not clear. In this section the pricing factors mentioned above will be discussed in the context of pricing for industry. A number of Central and State agencies are involved in the regulatory monitoring and management functions and all their costs need to be incorporated in the pricing. But there needs to be a clarity on various cost components and the respective components should go the concerned agencies so that they are able to discharge their functions efficiently.

Royalty – As per the assessment of case law and constitutional and legislative provisions by the Expert Group on Groundwater Management and Ownership (Planning Commission, 2007), Government has regulatory power so that one user's pattern of use should not affect the rights of other users with respect to quality and quantity. However, the basic right to access groundwater

is as per the Indian Easements Act, 1882 and tied to land ownership. Therefore charging of royalty could be legally contentious.

Administrative costs – This may cover costs of regulatory functions, monitoring, etc. A number of Central and State Governments agencies may be involved, e.g. CGWB / CGWA, Central and State Pollution Control Boards, State Water Resources Departments, District Administration, Municipalities, etc. A realistic assessment of costs being incurred by all concerned agencies be made and the respective components should go to the concerned agencies so that they are able to discharge their duties efficiently. This framework also enables a "single window" approach and therefore reduces transaction time and costs. Presently, the CPCB is charging cess on water permits. But it is not clear whether it is towards administrative costs or for providing wastewater management facilities (such as treatment and conveyance). But pricing components towards such services should be assessed separately and charged accordingly.

Infrastructure for Groundwater Augmentation and Recharge – This component may be charged if the Central or State Governments are actually developing infrastructure for groundwater augmentation and recharge, similar to the head works and conveyance systems for surface water management. The National Water Policy 2002 recommends (in the context of financial and physical sustainability) that "There is, therefore, a need to ensure that the water charges for various uses should be fixed in such a way that they cover at least the operation and maintenance charges of providing the service initially and a part of the capital costs subsequently". This recommendation can become a basis for fixing the rates for this component of pricing. Again, this component should go to the agency that is actually executing these activities, i.e. the State water resources departments.

Since Orissa government not providing any infrastructure for drawing and utilization of Ground Water, so this will not became the basis of ground water tax.

O&M Cost of Water Abstraction and Distribution Service – This issue is hypothetical presently since the Central and State water resources departments are not offering this service in rural areas to industries. But if this service were to be provided then O&M costs and some part of capital costs may become the basis for fixing rates for this component. Again, this component should go to the agency that would be actually executing these activities, i.e. the State water resources departments.

Wastewater Treatment Service – This issue is relevant to mainly small and medium industries. The larger industries using substantial amounts of water are normally mandated to undertake wastewater treatment and therefore discharge only treated wastewater (i.e. if permitted to discharge, since many companies have been mandated "zero" discharge). But the pricing of this service requires careful attention. Treated wastewater can be used in agriculture as also as utilities in industries and residential areas, which could be a revenue generating service to end users. Therefore it is possible that part of the revenue for this service can come from the users of treated wastewater. Therefore industries that want to avail of the wastewater treatment service may be charged in the framework making up for the gap between revenue from treated wastewater users and the actual cost of treatment and redistribution. The service providers for this service may be mainly private agencies. However, usually such projects would be facilitated by State / Central Government agencies, e.g. the industries development corporations. Therefore the revenue movement issue needs to be sorted out, whether the state governments collect the revenue, the central agencies, or the subscribing industries pay directly to the service provider. The National Water Policy 2002 framework for pricing quoted above will be useful for fixing the rates for this service as well.

Wastewater Conveyance Service – This issue comes up when the State Government (through local municipalities) need to provide for the drainage system for conveyance of treated wastewater to the designated river flow or discharge points in the seas. Presently at least the larger water user industries based in rural areas are being mandated to discharge their water at approved points. Therefore this issue also becomes more relevant to small and medium industries.

Non of the above service provided by government to ground water user.

6. Regulation of Ground Water use

At present CGWA is following Environment Protection Rules, 1986 to carry out its activities.

The Central Government in the Ministry of Water Resources has circulated Model Bill to all the state governments for enactment. So far the states of Andhra Pradesh, Goa, Kerala, Tamil Nadu, West Bengal, Bihar, Himachal Pradesh and Union Territories of Lakshadweep, Chandigarh and Pondicherry have promulgated the state legislations. Other States are in the process of formulation/promulgation.

In response to an emerging crisis that threatens the life and livelihoods of millions, the Centre, in 1970, framed a Model Groundwater (Control and Regulation) Bill for adoption by the states.

Revised in 1972, 1996 and 2005, the Bill provides the framework to regulate use of groundwater in India. Some states like Karnataka, Maharashtra and Tamil Nadu have passed legislation based on this model Bill.

The revised version of the central Bill proposes:

- Compulsory registration of bore well-owners.
- Compulsory permission for sinking a new borewell.
- Creation of a groundwater regulatory body.
- Restrictions on the depth of borewells.
- Establishment of protection zones around sources of drinking water.

The Bill mandates:

- Periodical reassessments of groundwater potential on a scientific basis, considering quality of water available and economic viability.
- Regulation of exploitation of groundwater sources so that extraction does not exceed recharge.
- Development of groundwater projects to augment supplies.
- Integrated and coordinated development of surface water and groundwater so that they are used conjunctively.
- Prevention of over-exploitation of groundwater near the coast to stop the ingress of seawater.

These mandates, which have yet to become law in most parts of the country, sound good on paper. But there is one basic flow: implementation is entirely in the hands of government authorities; the people who use groundwater have no role in decision-making or implementation. This runs contrary to customary belief regarding ownership of groundwater (discussed above) and the experience of groundwater regulation anywhere in India and the rest of the workd.

7. Was there any low on Ground Water in India

The answer to the above mentioned questions takes us to the fact that independent India has followed the British tradition. That means, the legal principle evolved by the British Courts, which is known as common law principle, was followed in India. Beyond that, there was no law in India exclusively to regulate or control groundwater use.

Common law considered groundwater as part and parcel of the land. The legal consequence of the common law rule is that the owner of the land could dig well(s) in his land and extract as much groundwater he can or wants. The land owner was not legally liable for any damage caused to water resources of his neighbor as a result of his over extraction. It was not a matter even if he has over-exploited groundwater with an intention to cause injury to neighbours' wells. This legal principle could be seen in some laws dealing with land rights, for instance, the Indian

Easements Act, 1886. This principle was also endorsed by courts during pre-independence period.

Common law principle is still a part of groundwater law in India. It will remain as a part of groundwater law until and unless state governments make separate groundwater laws. The applicability of common law principle on groundwater is being discussed even now. A best example is the plachimada Coca-Cola case decided by the Kerala High Court. The issue is not yet resolved the appeal against the Kerala High Court decision is pending before the Supreme Court [BOX K].

- Indian Easements Act, 1886 – 7(g) The right of every owner of land to collect and dispose within his own limits of all water under the land which does not pass in a defined channel and all water on its surface which does not pass in a defined channel.

- Common Law Principle on Groundwater – Kesava Bhatta v. Krishna Bhatta : Chandra Shekhara Aiyar j, held that: "the general rule is that the owner of a land has got a natural right to all the water that percolates or flows in undefined channels within his land and that even if his object in digging a well or a pond be to cause damage to his neighbour by abstracting water from his field or land it does not in the least matter because it is the act and not the motive which must be regarded. No action lies for the obstruction or diversion of percolating water even of the result of such abstraction is to diminish or take away the water from a neighbouring well in an adjoining land.

- Plachimada Coca-Cola Case – The Plachimada panchayat, which had granted an exploitation license to the Coca Cola Company, decided not to renew it because of the lowering of the water table and decreasing water quality. The Panchayat also ordered the closure of the plant on the ground that over-exploitation of water by the Company had resulted in acute shortage of drinking water. The company challenged the authority of the Panchayat before the High Court of Kerala. The major legal issue was the right of a landowner to extract groundwater from his land and the power of the Panchayat (or local bodies in general) to regulate the use of groundwater by private individuals.

  The Single Judge observed that even without groundwater regulation, the existing legal position was that groundwater is a public trust and the state has a duty to protect it against excessive exploitation. The judge also made a link between the public trust and the right to life and thus recognized that a system which leaves groundwater exploitation to the discretion of landowners can result in negative environmental consequences. However, on appeal, the Division Bench asserted the primacy of landowners' control over groundwater in the absence of a specific law prohibiting extraction. The issue is now pending in the Supreme Court.

- Perhaps due to the continuous push from the central government, some state governments have come forward to make separate groundwater law. The states of Andhra Pradesh, Goa, Himachal Pradesh, Karnataka, Kerala, Tamil Nadu, Uttar Pradesh and West Bengal, and the Union Territories of Lakshadweep and Pondicherry, have introduced laws to regulate and conserve groundwater resources.

8. List of Person / Companies whom CGWB given permission for construction of Bore-well in Orissa.

Though Orissa government came with a notification w.e.f. 01/10/2010, the Permission for ground water withdrawal (NOC) is issued by CGWB.

9. Legal regime concerning Ground Water

A model bill for groundwater regulation was first proposed by the union government for adoption by the states in 1970. It has been revised several times but the basic framework of the latest 2005 version retains the basic framework of the original bill. Recent legislative activity by states indicates that they are generally ready to follow the framework provided by the model bill. This is

the case of states adopting a general groundwater legislation like Kerala, or states focusing on its drinking water aspects like Karnataka, Madhya Pradesh and Maharashtra.

The basic scheme of the model bill is to provide for the establishment of a grounder water authority under the direct control of the government. The authority is given the right to notify areas where it is deemed necessary to regulate the use of groundwater. The final decision is taken by the respective state government. There is no specific provision for public participation in the scheme. In any notified area, every user of groundwater must apply for a permit from the authority unless the user only proposes to use a hand-pump or a well from which water is drawn manually. Wells need to be registered even in non-notified areas. Decisions of the authority in granting or denying permits are based on a number of factors which include technical factors such as the availability of groundwater, the quantity and quality of water to be drawn and the spacing between groundwater structures. The authority is also mandated to take into account the purpose for which groundwater is to be drawn but the model bill does not prioritize domestic use of water over other uses. Basic drinking water needs are indirectly considered since, even in notified areas, hand-operated devices do not require the obtention of a permit.

The model bill provides for the grandfathering of existing use by only requiring the registration of such uses. This implies that in situations where there is already existing water scarcity, an act modeled after these provisions.

Overall, the model bill extends the control that the state has over the use of groundwater by imposing the registration of groundwater infrastructure and providing a basis for introducing permits for groundwater ex

10. Exemption of Industries from obtaining NOC from CGWA

(i) Industries requiring ground water upto 25 m^3/day located in over exploited area; upto 50 m^3/day for critical areas; and upto 100 m^3/day in semi-critical areas are exempted from obtaining NOC for ground water abstraction from CGWA.

- The responsibility of verifying the actual requirement and withdrawal is vested with the State Pollution Control Boards.

- It should also be mandatory for such industries to undertake Rain Water Harvesting to the extent possible and enforcement of the same is vested with the State Pollution Control Boards.

(ii) Industries located in Safe category areas, are required to obtain NOC from CGWA if ground water abstraction by the industry exceeds 1000 m^3/day for hard rock areas and 2000 m3/day for alluvial areas. such cases will be examined as in 'B'.

(The above will not include industries which are using water as a raw material like packaged drinking water industries, distilleries and breweries)

Other Procedures:

a. NOC to be issued only once and renewal system is stopped. There would be random site inspection of selected industries by CGWA, and in case the industry/project is found to be a defaulter in adhering to the laid down terms and conditions, the NOC to be cancelled.

b. The present practice of issuing a No Objection to all industries / projects falling in safe category areas to be continued with an advice on recharge, recycle and reuse of water till the revised/new guidelines are implemented.

Note: Guidelines are subject to modification from time to time.

11. Procedure to be followed for evaluation of industry / infrastructure project proposals seeking ground water clearance:

A committee with the following composition to be constituted at district level for receiving and evaluating the project proposals, for ground water clearances:

i)	District Collector	Chairman
ii)	Hydrogeologist CGWB of concerned district	Member
iii)	Representative from Industry	Member
iv)	Representative from Pollution Control Boards	Member
v)	Additional member to be adopted if required.	

The committee shall meet at least once in a month depending on the number of proposals received for examination and forward the same to CGWA through Regional Director after reviewing. Regional Director will forward after reviewing with clear recommendations to CGWA, N. Delhi within two weeks and CGWA will clear these cases within two weeks of receipt.

In case of states where the state authority is functional under the EPA Act 1986 or appropriate state rules and regulations with operative system of ground water regulation, the prevailing authority can suitably adopt these guidelines with necessary modifications as per local policy and issue NOC with a copy to the Central Ground Water Authority / Regional Director, CGWB for avoiding duplication and or overlap. The existing state authority may nominate Regional Director, CGWB as member of the state level authority and nodal officers of CGWB at district level.