



The South African National Water Act makes provision for the equitable sharing of resources between water users in a catchment, from farmers, to industry to communities.

The National Water Act (NWA), Act 36 of 1998, has been widely hailed as one of the most progressive water resource acts in the world. It recognises that the environment should be allowed its rightful share, it placed into law South Africa's obligations to countries it shares its rivers with and it did away with the concept of 'riparian water law',

revious water legislation did not take into regard hydrological realities which nowadays are better understood, e.g. the connections between groundwater and surface water. Riparian rights were replaced by water licences to be allocated by a responsible authority, such as the Department of Water Affairs & Forestry (DWAF) or a catchment management agency. As a transitional measure the concept of 'existing lawful use entitlement' was introduced, with the aim of replacing all these entitlements with licences in due course.

Taking into regard South Africa's particular history, the NWA made

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provision for rebalancing equity in the allocation of water where there were unfair allocations in the past. or where waters of catchments were overallocated, i.e. where demands exceeded supplies and the water resource was under stress. A procedure called 'compulsory licensing' was introduced in section 43 of the NWA to deal with particular issue.

COMPLEX PROCESS

The compulsory licensing process is not an easy one. It requires a series of administrative steps, notices, advertisements, and publication of documentation such as allocation

schedules. It is fraught with difficult and complex administrative decision-making that is guite likely to be challenged, even in court. Even a constitutional challenge regarding the compulsory licencing provisions in the NWA cannot be ruled out. Small wonder then that, in the ten years since the publication of the NWA, only the relatively minor area of the Jan Dissels River has successfully gone through the process.

Compulsory licensing can only be done once. While this gives certainty to all users of water in that area. it does mean that there is only one bite of the proverbial cherry - it has

to be correct and, therefore, has to be done with great care. That means, in all likelihood, that a comprehensive reserve determination has to be undertaken to ascertain the ecological water needs for the area in question. Such an exercise can easily take two years to complete.

The once-off nature of the existing compulsory licensing process is particularly problematic: the scientific basis on which the decisions have to be made is far from perfect. The meteorological and hydrological records on which the calculations are based to determine the available water are often flawed (sometimes even non-existent) and have to be corrected or approximated using sophisticated techniques. Past experience has demonstrated that more often than not with additional data or improved techniques, the calculations of the quantities of available water would differ significantly.

The processes to determine ecological water requirements are equally fraught with difficulty, as are the judgement calls that of necessity have to be made as to the likely economic and social impacts that will follow reduced allocations in a particular geographic area. These estimations will form the basis of decisions as to what would be reasonable to reallocate to the environment and to water users, from the power generation sector to the small farmer and all the water users in between. When one adds to this the uncertainty of the effects of global climate change on the future availability of our water resources one has to conclude than an incremental process, allowing for corrections and adjustments, would be much more desirable than the once-off process of compulsory licensing.

MARKET MECHANISMS AND WATER LICENSING

The mechanism of trade and the market can be used to cut out much of the administrative burden of compulsory licensing, provided certain conditions are right and certain elements are in place. These conditions and elements are:

- The water authorisations, including the lawful water use entitlements, must be tradable within a prescribed area, such as a specific catchment considered for compulsory licensing.
- A mechanism to allow trade must be established. This could be a market that may be subject to certain set rules set by the responsible authority and/or series of tenders and auctions of the tradable water authorisations in the area under consideration.
- A fund must be established under the auspices of the responsible authority to enter into the market and obtain water authorisations for reallocation. The fund must be specific to the area in question.
- The responsible authority must be enabled to charge a levy on all water use in the area considered for compulsory licensing and to keep the monies thus accumulated in the fund mentioned above.

With these elements in place the responsible authority charged with the task of reallocating water according to the same principles as those for compulsory licensing has the ability to obtain stocks of water authorisations within the geographic area in question. This it can do in a progressive manner at a rate that will suit its ability to reallocate the water. It will be able to do this with circumspection so as not to abruptly shock the social and economic fabric of the area, and will enable it to monitor the results and make adjustments as may be needed.

The process of reallocating the water thus obtained would be the same process as envisaged with the compulsory licensing mechanism, except that it would be done in gradual fashion, over a longer period. Considerable work has been done on the issue of water trading, in South Africa as well as a number of other countries. Generally it is proposed that such a market has to be a managed one: it has to limit negative social consequences and take into regard the physical properties of the water system. The issue for South Africa is not IF a water market should be introduced, but WHAT exactly it should look like. Trading is in fact already taking place, and there is a need for a proper regulatory environment the sooner the better.

From an economic perspective the use of a market mechanism has the benefit of reducing administrative costs and, more importantly, result in more efficient allocation of scarce resources (in this case, water). This can be understood by considering that the more inefficient users of water would be first inclined to sell their authorisations in the market.

No State funds will be needed to effect the reallocation procedure discussed here. The funding would be sourced from within the geographic area targeted for compulsory licensing – instead of forfeiting water; the users contribute their monies to the fund to buy the water.

CONCLUSION

Using a market mechanism to effect the equitable allocation of water holds great advantages over a purely administrative system. Lengthy (and expensive) preparatory work can be cut short, the most inefficient water use will be targeted automatically, and it can be implemented in a progressive manner. There is also room afterwards to monitor, evaluate and to adjust, which is not the case with the present once-off approach. Most importantly, lengthy court challenges can be limited, if not completely avoided, by adopting this process.