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ISSUES AND OPTIONS

by

Jessica Vapnek
FAO Development Law Service

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ESTABLISHING A WATER ABSTRACTION SCHEME: ISSUES AND OPTIONS

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FAO Development Law Service

As the world's population continues its upward trend, many countries have begun to witness increased competition for water. This competition may be due to elevated levels of water pollution or other environmental stresses, to periodic scarcity, or to the appearance of certain high-volume uses, such as larger-scale tourism, industry, or agriculture. For example, government plans for irrigation development may raise concerns about the availability of water and, concomitantly, the ability of investors to acquire and rely on secure title to water. Even in those countries or states that have been fortunate up till now in having abundant freshwater resources, many governments¹ have begun consideration of their policy options to address competing water uses and escalating demands on water resources.

Foremost among these policy options is the establishment of a water abstraction licensing scheme, a system by which a government allocates water rights among competing users. The present document, which poses a series of 50 questions that ought to be considered in the decision-making process, is intended to provide guidance to governments considering whether to adopt a water abstraction licensing scheme. In answering the questions, policy makers will become familiar with options for the details of the operation of such a scheme, and will be able to identify open questions that will have to be resolved before any such scheme can be implemented.

Question 1: Introduction – what are the basic outlines and purposes of a water abstraction licensing scheme?

A workable water abstraction licensing scheme is one in which users are able to comply with its provisions and the water authority is able to administer and enforce it efficiently and effectively. Such a scheme aims to formalize users' water rights in an environment where there are concerns about scarcity, pollution, or competing uses, or where other doubts have arisen because water abstraction is unregulated. In such a system, water can be allocated among diverse users and diverse water use sectors in accordance with the government's priorities and plans.

Licensing of water abstraction is intended to assure the availability of a sufficient quantity of water of a satisfactory quality for the maximum number of diverse users, and at the same time to protect the environment and provide for future needs. Once the scheme is implemented, the users have a degree of certainty – subject only to river flow – that they will have access to water for their needs, which maximizes the potential benefit of water in a particular region or country.

¹ Although this article generally refers to the implementation of a water abstraction licensing scheme at the country level, it is of course possible for a licensing scheme to be implemented in political subdivisions such as states within a federal system.

Under a water abstraction licensing scheme, each actor has his/her/its particular role. The users apply for licences, use water, discharge waste water (where applicable), and pay fees. The water authority evaluates applications, issues or denies licences, keeps records (including a register of licences), monitors the operation of the scheme, finds, investigates, and punishes miscreants, and resolves appeals (although in some cases, another organ – such as a specially constituted appeal board – is assigned this last task).

The details of the operation of these facets of the scheme are usually dictated by a country's water legislation. If a basic Water Act does not exist, it will have to be enacted; alternatively, if there is a Water Act that authorizes the Minister to regulate water rights but that provides no details, regulations will have to be prepared in order to put the scheme into place. (Generally, it is the Parliamentary Act that contains the basic provisions which are not expected to change and which should also be protected from the political vicissitudes of successive governments, whereas it is the subsidiary regulations that contain all the details, since regulations may more easily be changed in response to scientific or other advancements.) The kinds of issues that will need to be addressed in legislation – whether laws or regulations – governing a water abstraction licensing scheme will be flagged in the discussion that follows.

Question 2. Is there the necessary political support to implement a water abstraction scheme?

The process of preparation for and implementation of a water abstraction licensing scheme provides a unique opportunity for collaboration among various actors and governmental departments and agencies. Some of the many implicated stakeholders in a particular country might be (whatever their particular names): Ministry of Agriculture (including the crops, fisheries, forestry, and veterinary departments), Ministry of Communications, Ministry of Community Development, Ministry of Environment, Ministry of Finance, Ministry of Health, Ministry of Industry, Ministry of Local Government, Ministry of Tourism, Ministry of Transport, the electricity corporation, the water and sewerage authority, farmers and agricultural producers, the tourism industry, and others. However, it is precisely because a water licensing scheme affects a wide variety of actors and because it may represent a significant departure from the status quo that there is a potential for conflict, and therefore the necessary broad base of political support should be cultivated early on in the process.

Inter-sectoral meetings that draw together the many affected actors are an excellent first step which should be followed closely by further inter-agency meetings as well as informal contacts. These will enable the government to discern common viewpoints on whether and how the water abstraction licensing scheme should be implemented. Experience has demonstrated the value of the sense of ownership of the water abstraction licensing scheme created by involving all implicated agencies, departments, and persons from the outset.

Question 3. What resources are available for implementation of the scheme?

Before a water abstraction licensing scheme may be implemented, a resource inventory (of personnel, equipment, and documentation) should be carried out. Important elements will be the technical know-how and administrative capacities of the unit and persons to be charged with running the water abstraction licensing scheme, and an assessment of the availability of logistical support, such as vehicles for enforcement sorties, computers (and database expertise, if necessary), offices, secretarial assistance, telephones to run the licensing office, and the like. The gaps should be identified and strategies developed for meeting any deficiencies – through training, funding, sharing of personnel, or other means.

Question 4. Is there the necessary budgetary support to implement the scheme?

Based on the resource inventory, it will be necessary to determine what expenses can be expected to arise in connection with the establishment and running of the water abstraction licensing scheme. For example, is there an existing unit to administer the scheme or will one have to be created; are present staff equipped to run and monitor the scheme or will other personnel have to be engaged; does some branch of the government already have access to the necessary monitoring equipment or will it have to be purchased? Once these and other questions have been answered, the sum can be estimated and the relevant support garnered.

Question 5. Who will administer the scheme?

Prior to the establishment of a water rights abstraction scheme, it must be decided who will administer it. In some countries, the task is entrusted to an already existing government department; in others, a new governmental or semi-governmental authority is specifically created with the mandate of running the abstraction programme. The resource assessment will prove useful in making that determination. *See Question 3.* The decision to create a new unit or instead to designate an existing one to run the scheme will have a number of implications in terms of its effectiveness (because of capabilities and resources), its vulnerability (such as to existing weaknesses or constraints within a particular ministry), and also the political support it will enjoy.

In some countries, legislation is very specific, providing that a unit *not* within the Ministry of Agriculture is to be in charge of the water abstraction licensing scheme. This can be a wise strategy to avoid potential conflicts of interest by distancing the control of allocation decisions from any particular water user agency or department. (Imagine a situation where the authority responsible for administering the licensing scheme is the Ministry of Agriculture, but where the Department of Irrigation within that Ministry is one of the largest competing users.)

It is also possible that a country will decide to decentralize the entire scheme and have its smaller political subdivisions carry out the licensing activities, including receiving and acting upon applications. The size of the country, the efficiency of the modes of

communication, and the rectitude of those responsible for issuing licences will all enter into the decision whether to centralize or decentralize licensing.

Question 6. What is the scope of the scheme?

It is essential to know where and how far the water abstraction licensing scheme will apply. It can apply to an entire country, to certain regions, to certain uses, or to certain kinds of uses grouped together. This determination should be based on the present situation in the country (kinds of uses, numbers of uses, location of uses) as well as on projected needs and expected future changes. Where the scheme is implemented through regulations, the scheme could be tried in specific regions and then expanded to cover the entire country. Alternatively, it could be tried for specific uses and then enlarged to encompass others. See Questions 48 and 49.

Question 7. Who will be eligible for grant of a water right?

A water abstraction licensing scheme must define who is eligible to apply for a licence. Details can be specified in the legislation, or the Minister could simply be granted broad power to decide who is eligible. Some of the typical provisions relating to eligibility make clear that both “persons” (i.e., human beings, corporations) and “public authorities” (i.e., governmental departments, quasi-governmental agencies) can apply for licences; other provisions specify that it is only those persons with access to ground or surface water (as land owners or occupiers) who are eligible for licences. If the country has any other legislation governing the activities of companies, partnerships, and the like, this too should be assessed to determine whether it might affect conditions for eligibility for a licence under the abstraction scheme.

Question 8. Are there any exemptions?

Often, domestic use is excluded from the water abstraction licensing scheme, so that any occupier of land and his/her family and employees can abstract as much water as is necessary for the domestic necessities of the household, including the watering of livestock and the irrigation of a subsistence garden. Although this exemption seems justifiable in a country with a large subsistence economy, it ought to be borne in mind that in some cases it may unfairly benefit wealthy users with large landholdings and livestock herds.

Question 9. How will existing uses be treated?

In order to avoid unreasonable government intervention with existing expectations and rights, any new water abstraction licensing system should take into account the constellation of water uses and users existing before the abstraction scheme comes into effect.² Generally, existing users are granted rights under a new scheme. For example, any users who can demonstrate that they abstracted and used water in a controlled

² This baseline data will permit useful ongoing comparisons with monitoring data that is collected once the scheme is in operation.

area, or for a controlled use or class of uses for a specific time period preceding the inauguration of the scheme, would be entitled to a “licence of right”.

It will have to be decided whether the unit administering the scheme *must* grant a licence upon the applicant’s showing that he/she used the water for the requisite time period, or whether the unit has the power to deviate from what exactly the applicant is seeking. In the latter case, it is worth asking whether any such deviation would give rise to any claim for compensation (as a government taking) under the country’s Constitution, Water Act, or other legislation.

Question 10. How does one apply for a licence under the scheme?

The system should define how one can apply for a licence under the scheme (to whom? by regular mail, registered mail, or fax?). The details will depend on the size and population of the country and how reliable the communications system is.

Question 11. What does the application form consist of?

It must be decided whether there will be one application form or specific application forms tailored for each kind of use. The choice will depend on the volume of applications expected and the desire of the water authority to keep distinct records regarding different uses. The application should include information about the applicant (name, address); the land (location, directions to reach it, size, type of holding); the water (type of water body, point of intake, point of return for any waste water discharges, *see Question 12*); the use (type, amount of water to be abstracted); and anything else deemed necessary by the unit administering the scheme. Regular licences and licences of right may or may not differ in form.

Question 12. May the applicant also apply for waste water discharge?

Certain applicants for a licence to abstract water will also wish to apply for permission to dispose of waste water. Some water abstraction licensing schemes provide that such approval must be sought in connection with the application for the original abstraction licence (for example by including a section to that effect on the application form); others require that a separate application for waste water disposal be filed. There are no particularly strong arguments one way or the other, although efficiency might militate toward linking the two in one application process.

Question 13. How are the waste water effluent quality standards set?

The waste water effluent quality standards should be set at a level appropriate to the country’s conditions, and they should be established ahead of time by a working group consisting of technical experts as well as representatives of the unit that will make the decisions on approval. Conceivably, there could also be a role in the working group for those expecting to submit applications for approval of waste water disposal, as industry members are clearly in a position to know what kinds of waste water are at issue and

their capabilities for controlling them. As mentioned in *Question 2*, this kind of broad participation fosters a sense of ownership, which in turn facilitates compliance and effective implementation of the scheme.

Question 14. What else is an applicant required to submit?

If any other specific documentation or evidence is required in connection with the application for a water abstraction licence, that should be stated on the application form. For example, it may be necessary to obtain planning permission for certain activities, in which case evidence to that effect should accompany the application. Similarly, if a country requires an Environmental Impact Assessment to be carried out in connection with certain proposed uses or locations, the application form should indicate that such additional material must be provided.

Question 15. Does one pay a fee?

A small fee to defray the administrative costs of dealing with the application is probably indicated, and for efficiency reasons it should be non-refundable. Out of fairness, no one should be exempt.

Question 16. What is the fee and how is it determined?

Generally it will be the Minister who determines the relevant processing fees, although this duty could also be consigned to the head of the unit administering the scheme.

Question 17. What happens after the unit receives the applications?

For transparency of the process and good public relations, if there is expected to be any delay in issuing licences, the unit administering the licensing scheme should send a postcard to each applicant indicating that the application has been received and a response will be provided within the stated time period. In small countries, the administrative burden of this should not be too great, although larger countries may have to settle on other arrangements. To facilitate public comment (*see Question 20*), the application should be publicized in some fashion (official gazette, newspaper, poster) immediately after receipt.

Question 18. Who evaluates the applications?

It is not necessarily the case that the same unit that receives the applications will also evaluate them. And even where one person (e.g., Minister, head of the administering unit) is statutorily charged with the responsibility of evaluating applications, this may not always mean that he/she makes those determinations alone. For example, there may be a water board or water council that advises the Minister on water matters, and depending on its mandate, it could exercise decision-making authority (either its own or delegated) in connection with water allocation decisions. One advantage accruing from using the water board/water council in this way is the breadth of its members'

experience that can be relied upon.

Question 19. What are the criteria for evaluation?

The unit charged with the task of evaluating applications ought to develop a written list of criteria for the grant of a licence so that the evaluation process can be externally assessed.³ Some of the pertinent considerations that may come into play are hydrology and hydrogeology; the established and projected demand for and availability of water; and the likely impact on water resources. Other criteria will naturally include an assessment of the applicant and of the relevant parcel of land. Any objections (see *Question 20*) and rebuttal should also be taken into account, as should any request for disposal of waste water (see *Question 12*), or issues such as Environmental Impact Assessments (see *Question 14*).

Question 20. Is there a process for submission of objections?

To ensure that existing and potential interests are taken into account in the evaluation and grant of licences under the new system, it is essential that an opportunity be provided for public comment and objection. In this regard, there should be some definition of who has “standing” – i.e., whose objections any appeal body must take into account, and whose it may ignore (because the objector does not have standing).

Question 21. What happens to those objections?

The details of how objections will be received and publicized will have to be decided upon. A reasonable procedure would be something like the following: upon receiving the applications (see *Question 17*), the unit evaluating them should announce that comments (in a specific format, e.g., in writing with supporting material of whatever kind) will be welcomed until a specific date, after which nothing further will be accepted. The applicant would then be provided with a copy of any objections received and be granted a period of time in which to submit a rebuttal.

Question 22. What is the timing of the licence application process?

A reasonable time period should be decided upon (one month, two months) from receipt of the application until notification of the decision on grant or denial. This should of course be extended for other specified time periods during which objections and any rebuttals can be received. The duration of these additional time periods should be selected based on an assessment of the administrative capability of the responsible unit and of simple matters like postal service, publication speed, and the like.

³ This list of criteria can assist in the preparation of the written reasons for the denial of an application for a licence, if that is statutorily required to be provided (see *Question 23*) to every applicant.

Question 23. How is the applicant notified of the grant or denial of a licence?

Normally, an applicant should be notified of the grant or denial of an application for a licence by mail. The country's legislation may require that the notification include the reasons for the (negative) decision.

Question 24. Is anyone else notified (such as via publication)?

For reasons of openness and a wide distribution of information to facilitate public participation, there is a strong argument for publishing all grants (and denials) of licences, particularly where there have been objections and rebuttals.

Question 25. Is there an appeal process?

Inevitably, where an applicant has been denied something – whether under a water abstraction licensing scheme or any other programme – he or she will disagree with the decision and may wish to have some avenue for an appeal. The arguments for providing such an appeal system are that it provides due process as well as a system of checks and balances, to ensure that decisions have been made using the proper criteria.

Question 26. How does it work?

In a system where the water allocation decisions are made by one person (such as a Minister or head of the administering unit), an appeal could be had to an inter-sectoral committee or board. For example, recourse could be had to the water board or water council, or to one of its standing committees.

Where instead the decision is made by a board, council, or committee, there are two possibilities for an appeal process: either a request could be made directly to the council or committee (essentially asking for a re-hearing), or a formal appeal could be submitted to another body, such as an appeal board specifically established to hear appeals on water abstraction licensing decisions. Whichever is the case, the details of the appeal process need to be decided upon: what format does the appellant need to use (any written letter is sufficient/a specific form must be filled; what evidence is required to be provided and in what form/no evidence is necessary; an appellant can/cannot/must be represented by legal counsel; the decision will be made on the basis of the written documentation alone/an oral hearing is required; the appellant may/may not call witnesses at the hearing, etc.). Time limits should be specified as should the fact that decisions on appeals are final.

Question 27. What charges are attached to the licence and how does one pay?

The levels of water charges will have to be decided upon. Among the details that must be resolved are whether there will be differential charges for different uses (e.g., whether an irrigator should have to pay regular domestic or commercial rates); and

whether a licensee should have to pay 100% or some fraction of any unused water under the licence. This latter would help ensure that licence amounts are realistic and that there are not large amounts of water blocked off and unused where someone else might have made beneficial use of it. It should be decided how the charges will be collected.

Question 28. How are those charges determined/changed?

Logically, it should be either the unit responsible for administering the water abstraction licensing scheme, the relevant Minister, or the water board/water council that determines the applicable charges and reviews them periodically to ensure that they are set at the proper levels.

Question 29. Are there any uses or users exempted from water charges?

As stated above under *Question 15* in reference to the application fee, fairness dictates that no one – and in this case, neither any person nor any use or group of uses – should be exempt from water charges.

Question 30. May a licence have any conditions attached to it and if so, which ones?

Although generally licences ought be standardized for purposes of fairness and uniformity, it should also be possible for the administering unit to impose conditions on the licences to allow for maximum flexibility in the administration of the scheme. Such conditions might concern the duration of the licence period, the use to which the licence applies, or some other issue. Generally, it will be the Minister who determines the terms and conditions of licences, although the water board/water council may provide useful advice in this connection.

Question 31. May conditions be altered and if so, which ones?

The scheme should provide that the unit responsible for administering the water abstraction licensing scheme may make changes to licences where circumstances have also changed. For example, a user may not be using the water in accordance with the terms and conditions of the licence, or not using it at all (whereas another user might be able to make use of it).

Question 32. What does the licence consist of (i.e., numbered system)?

The details of the licence itself should be decided upon (what will it look like, what kind of numbering system will be used). Generally, the legislation will provide that it is the Minister or the water board/water council that determines the form and content of licences.

Question 33. How is a licence issued?

In most cases, the licence will be sent or delivered to the applicant, although it would also be possible to notify the applicant that the licence has been issued and require him/her to go to administering unit to pick up the licence and sign any necessary forms. In small countries or political subdivisions, this might be useful to enable the administering unit to meet each of the licensees and establish a good rapport.

Question 34. What is the procedure for registering licences?

An effective water abstraction licensing system will require that all water rights be systematically registered. As noted in *Question 5*, in some countries the issuance of licences may be decentralized, in which case there may be more than one register. The country's size and population will determine whether decentralization – and concomitant multiple registers – is a realistic option.

Question 35. Who maintains the register of licences?

It would make sense for the unit responsible for issuing the water abstraction licences to maintain the register(s), although in some cases staffing considerations may dictate otherwise.

Question 36. What access is permitted to the register?

The scheme could permit only those in possession of a valid licence, or could authorize the public at large, to have access to the register of water abstraction licences. Some of the kinds of non-licensees who might wish to consult the register would be persons wishing to know whether, how many, and what kind of licences are attached to a particular water source; objectors wishing to bolster their arguments against the grant of particular licences; environmental groups; and others. For purposes of transparency, the fullest access is recommended, although to take account of concerns about confidentiality, provision could be made for blacking out sensitive portions of applications or other documentation.

Question 37. Does a licence have a term of validity, and if so, how long is it?

Virtually all licences of whatever sort have a term of duration. The term ought to be long enough that the licence will provide certainty to the users (and thus foster economic development and the most beneficial use of the water), although short enough that in the start-up phase of the water abstraction licensing scheme, mistakes do not have to be lived with for decades. On the other hand, since some applicants will have had to make significant investments (such as for hydroelectric installations) before applying for the licence, the licence term must be long enough that the investors can expect to amortize their costs over time and also (hopefully) begin turning a profit.

One way to take account of these considerations is to vary the licence duration

depending on the kind of use. For example, where the water is to be used for hydroelectric power, it can be assumed that there have been significant investments and the licence term could be as long as 75 years. Tourism licences, which probably require less in the way of capital investment but more in the way of government oversight, could be for 10 or 25 years. It bears noting, however, that allowing for too much flexibility in the determination of the licence term may also allow for the possibility of abuse on the part of the decision-maker, and this should be avoided.

Question 38. Is a licence renewable, and if so, how?

There is no particular reason not to allow users to renew their licences, although some re-evaluation of each licence in connection with that renewal is probably advisable. This enables the administering unit to make certain inquiries, such as into whether the licence conditions were complied with and whether the water was put to beneficial use. It also allows the licence fee to be increased.

Question 39. May a licence be transferred to another user?

It should be decided whether the licence may be transferred to another user during its term of duration. The advantage of transferability is that it permits the possibility of trading in water rights, which some countries have adopted in the belief that it fosters the most beneficial use of water. The counter-argument is that in a system of water trading, wealthier users will have greater advantages and this may lead to an unfair distribution of water rights.

In addition to determining whether the licence should be transferable, there should be provisions for succession where the licensee dies or ceases to be the owner or occupier of all or part of the relevant land.

Question 40. May a licence be suspended or cancelled, and for what reasons?

For ease and efficacy of administration, the unit responsible for administering the water abstraction licensing scheme must have control over the licensees and their activities, which should include the ability to suspend or revoke a licence for specific reasons. (The licensee should have been notified of these specific reasons when he/she was issued the licence.) The country's legislation might provide that licences may be suspended or cancelled in circumstances such as the following (and there may be others): (1) at the request of the licensee; (2) for a breach of the Water Act or its regulations; (3) if there has been waste or misuse of the water; (4) for non-use of water under the licence; (5) to accommodate a new use of the water to which the licence relates. Where the licence is to be suspended temporarily, the time of the suspension period should be specified, as well as the means by which the licensee can have the licence reinstated.

Note that the licensee him-/her-/itself should also be able to surrender the licence, as the situation warrants.

Question 41. Does a licensee have any remedy where his/her licence is suspended or revoked?

To assure licensees that their rights cannot be revoked capriciously and without justification, the scheme should provide for some kind of recourse where a licence is suspended or revoked. For example, the licensee could be given an opportunity to exonerate himself, or to remedy the default. Other details will have to be decided. For example, will there be an appeal process? See Questions 25 and 26. How exactly can an applicant defend himself (written evidence, at a hearing, or both)?

Where a licence is revoked to accommodate a new use of the water to which the licence relates, legislation may provide that the existing licensee is entitled to compensation from the new licensee. This could either be in the form of agreed deliveries of water, or some other form agreed by the parties (or by the Minister where such agreement is not possible).

Question 42. Is there a system for adjudicating water rights where disputes arise?

In the operation of the water abstraction licensing scheme, disputes may arise, for example among neighbouring licence holders with water rights from the same water source. Accordingly, it would be prudent to provide for some dispute resolution procedure. The unit responsible for making decisions on the grant or denial of licences could also be charged with dispute resolution; alternatively, the water board/water council could have this in its mandate; or the dispute resolution procedure could be part of the regular appeals process, if any. See Question 26.

Question 43. Who will monitor the operation of the abstraction scheme?

Once the water abstraction licensing scheme is operating, one unit or agency should be made responsible for monitoring its operation. This task could be entrusted to the same unit that is responsible for running the licensing scheme, or it could be out-sourced to another department or agency. Considerations of resources, capabilities, efficiency, and independence will inform this choice.

Question 44. How will the monitoring be carried out?

To be most effective, monitoring should be carried out in a systematic way. The unit responsible for the monitoring activities will have to establish procedures, work manuals, forms, and perhaps data management systems in order to administer the monitoring system effectively. The monitoring should be directed at ensuring that licences are being complied with, that the amount of water being abstracted is not negatively affecting instream uses, and that the water sources are not being unduly harmed by any waste water discharges. Even technical matters like pump capacity could be assessed.

Question 45. Will certain monitoring tasks have to be delegated to other actors?

Where the resource inventory described in *Question 3* revealed particular weaknesses, it may be necessary to reach out beyond the staff and capabilities of the unit(s) mandated to monitor the scheme and delegate some of the monitoring tasks to other actors that have significant water expertise. For example, some tasks and field inspections could be consigned to the water and sewerage company, although care should be taken not to delegate too much to such a company, because it is often one of the largest users and conflicts of interest could arise. Another task that could be delegated (to the forces of public order, for example) would be that of pursuing defaulters on water charges.

Question 46. What precursors will be necessary for this monitoring to take place?

In order to be able to compare circumstances when the scheme is in operation with circumstances as they were before implementation, before the scheme is inaugurated it will be necessary to gather information on water users, water uses, and waste water discharges throughout the country, to be used as a baseline. It should be decided by whom and how this information will be gathered: by the authorities (i.e., a top-down and control-oriented approach), or by the users themselves. Although the former may guarantee more certainty, the latter may foster a more participatory approach and eventually a more sustainable system.

Question 47. What forms will be necessary to implement the licensing scheme?

The necessary forms to implement the scheme will have to be prepared. These could include:

- Application for Licence
- Licence
- Application Form for Variance of Licence
- Application Form by Licensee to Surrender Licence⁴
- Application for Transfer of Licence
- Application for Licence of Right
- Licence of Right⁵

Question 48. Will the scheme come into place on one particular date, or gradually?

The water abstraction licensing scheme can be adopted all at once, or it can be put into place in stages. The advantage of the former is that once it is functioning, then the operation of the scheme (in all of its complexity) can be fully evaluated after a specific time period. By contrast, the advantages of implementing the scheme incrementally are that it can be tested perhaps in one part of the country or only for certain uses, and

⁴ Although a simple written letter could be all that is required.

⁵ But this may be the same as the regular licence. See *Question 11*.

therefore users can take time to get accustomed to the system. In addition, the later stages of the scheme's implementation can be modified to take account of how the first stages proceeded. The decision will depend on the country's policy priorities; or gradual implementation may be the only realistic option, for example where there are budgetary constraints prohibiting full allocation for the complete scheme.

Question 49. If an incremental strategy is adopted, which aspects of the scheme should be put into place first?

If it is decided not to adopt the water abstraction licensing scheme all at once, the Minister or water board/water council will have to determine which aspects of the scheme should be implemented in what order. Logic suggests that the first focus should be on gathering information and registering users; this could be followed by the issuance of licences to certain categories of users or uses, or to users in certain regions. All fees could be waived for the first year of operation so that users will feel they are voluntarily participating in a scheme to which they can contribute ideas and suggestions for its improvement, before its final implementation.

Question 50. What else needs to happen before implementation of a water abstraction scheme?

Once the policy decisions raised in the preceding 49 questions (and that have arisen and will arise during discussions on whether to adopt the scheme) have been resolved, draft regulations implementing the scheme – including forms and schedules of fees – should be prepared by the legal draftspersons in the Ministry of Justice, in close collaboration with the water board/water council and with the unit that will administer the scheme. Upon their completion, these regulations should be circulated among the affected government departments and used as a basis for further policy discussions. *See Question 2.* When they are further refined and finalized, the regulations should be circulated for public comment and discussion.

Public hearings, the media, and other information sources (pamphlets, users' manuals, posters, and the like) can be employed to educate the public about the nature of the country's legislative framework governing the water sector, the scope and extent of users' rights and duties under the scheme, and the ways in which the scheme will operate in all its detail. Early involvement and sensitization should foster greater user participation and a sense of ownership, as well as greater efficacy of the scheme.