

**BOWEN WATER USERS
FOCUS GROUP WORKSHOP 2
15TH MAY 2012**

**AS PART OF PROJECT ENTITLED
DELIVERY OF FOCUS GROUPS AND
INTERVIEWS FOR THE NATIONAL
WATER COMPLIANCE FRAMEWORK**

FINAL R E P O R T

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SUMMARY

This document reports the outcomes of the second of four focus group workshops conducted as part of the project entitled “Delivery of focus groups and interviews for the National Water Compliance Framework”. The workshops were part of a project commissioned in April 2012 by the (then) Department of Environment and Resource Management in fulfilment of Queensland’s obligations under the National Water Compliance Framework.

The workshop was conducted on 15th May 2012 at the Bowen TAFE. Four water users attended the workshop.

A systems diagram was created by the focus group to illustrate the complexity of factors that determine both water supply and demand. This included factors such as crop types, weather, water sources and specific water licence requirements.

The participants believed that commercial growers would ensure they have good knowledge of the rules surrounding water use and thought that the smaller and hobby growers might have less knowledge. The costs of compliance were not seen as onerous, only annoying in that the value for money could not be seen.

They accepted that there was a need to manage the aquifer and that the current arrangements for doing so (that is, the *Bowen Water Management Policy 2007* and the *Bowen groundwater management area water sharing and seasonal water assignment rules 2011*), though a compromise, was a reasonable way forward. There was some disgruntlement, however, about some specific rules, for example, to do with an inability to over-allocate in wet years.

In working with the government, there was respect for the officers that the group dealt with, in the main. However, there was generally much less regard for the department as a whole, with some participants suggesting that the department did not support their officers enough.

These water users indicated that they do notice when there is illegal water use and are unhappy about it, but won’t confront the perpetrator. They also considered that they’d only report the infringement if it impacted upon them.

Whilst they thought the chance of inspection was very high (100%), the chance of actual detection through these inspections was less certain. They thought this discrepancy was due to inspectors having inadequate knowledge (e.g. of what level of water is required per crop) and/or not walking around the properties. In addition, the penalties applied were seen, by the focus group, to deter small farmers only.

Communication suggestions included:

- More face-to-face meetings either in groups or by staff visiting Bowen
- Receipts for phone advice (and better record keeping of that advice)
- Use of existing newspapers/newsletters to share information

Whilst the website was acknowledged as being a useful resource by one participant, he conceded that he “wasn’t a computer user” and thus would be unlikely to access the website himself. Email communications were not mentioned.

INTRODUCTION

This is a report of the second of four workshops conducted as part of the project entitled “Delivery of focus groups and interviews for the National Water Compliance Framework”.

The workshops were part of a project commissioned in April 2012 by the (then) Department of Environment and Resource Management. It is now being managed by the Department of Science, Information Technology, Innovation and the Arts (DoSITIA) on behalf of the Department of Natural Resources and Mines (DNRM).

The workshop series included four regional workshops, of which two were conducted in Bowen on 14 and 15 May 2012 with water users in the Bowen Groundwater Management Area, and two were conducted in Bundaberg on 16 and 17 May 2012 with water users from the Coastal Burnett Groundwater Management Area.

BACKGROUND INFORMATION

INVITATIONS

The Department provided the consultants with water licence holder databases for the Bowen and Coastal Burnett Groundwater Management Areas. From those databases, approximately 60 names were randomly selected for both areas. Letters of invitation were sent to these water licence holders two weeks prior to the workshops. Follow-up telephone calls were then made. In addition, to secure sufficient participation at the focus groups, more water licence holders were randomly selected from the database and contacted by telephone and/or email.

FOCUS GROUP DISCUSSION

The format used for the meetings was focus group discussion. This format is often applied to assist with program development or evaluation as it engenders debate and consensus building.

DRAFT AGENDA

Approximately two hours were allocated for each focus group discussion. The agenda is shown in Table 1.

Table 1: Generic draft agenda

Agenda item and details	Time
1. Welcome & introductions * Introduction by consultants * The Project: Outline, purpose, objectives * Formalities; Plain-English Project Summary; Informed Consent Form; Payment at close of meeting * Participants' introduction * Meeting logistics	0:00—0:15
2. Water use on farms: water demand vs water supply	0:15—0:45
3. Compliance: Using the T11 approach	0:45—1:45
4. Water user preferences * communications from DERM * information relating to water resource planning, water user responsibilities and compliance	1:45—1:55
5. Meeting close * Thank participants * Input into draft report * Forthcoming survey of water users * Evaluation * Participant payment	1:55—2:00

Refreshments were available throughout each workshop.

Where possible, focus group discussions were recorded on butcher paper and whiteboard, as this provided a visual representation of the verbal exchange and fostered a shared understanding of the topics discussed, including points of consensus and disagreement. One member of the research team also took notes during the meeting. Furthermore, the discussions were audio recorded to ensure that all the participants' comments were captured and added to the workshop data for analysis and report writing.

A report was provided to participants no later than five working days after the workshop, for review and feedback.

SYSTEMS APPROACH TO WATER USE

Taking a systems approach to land management involves exploring the complexity of interactions within and between the 'hard' system (the biophysical components) and the 'soft' system (the farm family and community, innovative technologies). It also acknowledges that these systems are embedded in larger systems that provide context and meaning for decisions made at the farm level (e.g. broader economic, cultural and social systems). A systems approach has been shown to be useful because it takes on a holistic view of the world and allows for interactions to be uncovered. (Bosch et al 2007)

A systems approach was used to frame focus group discussions about how water users make decisions about water consumption. Of course, the term "systems approach" was not used during the focus group but the approach meant that the discussions identified the various factors and relationships which influence water use decision-making. These factors comprised internal and external factors (see first part of Results section, below). Internal factors could have included personal motivations, risk preferences, and farm economics, while external factors relate to markets, the environment and government regulation.

A systems approach is highly applicable for use in a focus group or workshop situation as it: (1) brings an analytical approach to the subject matter; and (2) lends itself to visually engaged facilitation (the factors mentioned by focus group participants were "mapped" out and linked to each other on a whiteboard or on butcher paper). Visually engaged facilitation is often employed in a 'learning' environment. In contrast to a linear treatment of the subject matter, a visual systems approach enables the exploration of the direct and indirect consequences of variables, ensures that a vast realm of complexity is dealt with, and allows the explanation of perverse outcomes. A systems diagram maps and links the captured information from a focus group. It is an effective and efficient way of visually representing participant input and the final product, a shared mental model, reflects both the collective and disparate views of the discussion topic as held by the participants.

A FRAMEWORK TO EXPLORE COMPLIANCE WITH WATER REGULATION

The 'Table of Eleven' (T11) methodology was developed for the specific purpose of exploring compliance issues (LEEC 2004, Herzfeld & Jongeneel 2012). It

therefore lends itself as a tool to structure and support the exploration of compliance decision making by water users regulated under the *Water Act 2000*. The T11 methodology consists of eleven dimensions or factors that are important to compliance. Together, these dimensions can be used to gain a better understanding of the level, and likelihood, of compliance with any piece of legislation.

The eleven dimensions were formulated to be as practical as possible in the fields of policy-making and law enforcement. They relate to spontaneous (voluntary) compliance (1-6) and enforcement (7-11) dimensions.

We adopted the T11 approach but tailored aspects of the terminology to be more meaningful to the local situation.

The tailored dimensions are:

1. Knowledge of rules—including familiarity with rules and clarity of rules
2. Cost/benefits of compliance and non-compliance—both financial/economic and intangible
3. Extent of acceptance of the policy/legislation—both acceptance of its objective and its effects
4. Respect for authority—in terms of official authority and competing authority
5. Social control and water user self-regulation
6. Likelihood of being reported by somebody other than the authorities
7. Likelihood of inspection (of records or installations) by the authorities—both actual and perceived
8. Perceived likelihood of detection on the basis of an inspection
9. Selectivity (or targeting), ie. the perceived increased likelihood of selective inspection following a violation
10. Perceived likelihood of a penalty (fine or other) being issued following detection)
11. Severity of the penalty—in terms of amount of financial damage or damage to reputation

The questions used to guide discussions are attached to this report.

WATER USER COMMUNICATION PREFERENCES

The third and final part of the workshop elicited water licence holders' preferences in relation to communicating with, and receiving communication from, the Department. During this section of the workshop the participants provided feedback relating to both the content of information required and the process or procedure by which such information could be communicated with them and the broader community.

WORKSHOP DETAILS

Date: 15 May 2012

Time: 9.30—11:30 am

Location: TAFE, Bowen

Participants: 4 water users

Area of property ranging from 20 to 5000 acres, some with more than one parcel of land; some parts with different parts of the family; some pieces not farmed, this, in some instances due to poor quality water and/or soil

Enterprises including mangoes, tomatoes, cattle and soon one is moving to sugar cane; one has nil at the moment due to water problems

Water licences of 2.7ML to 600ML – not directed correlated with property size; some groundwater licences were not usable due to poor water quality

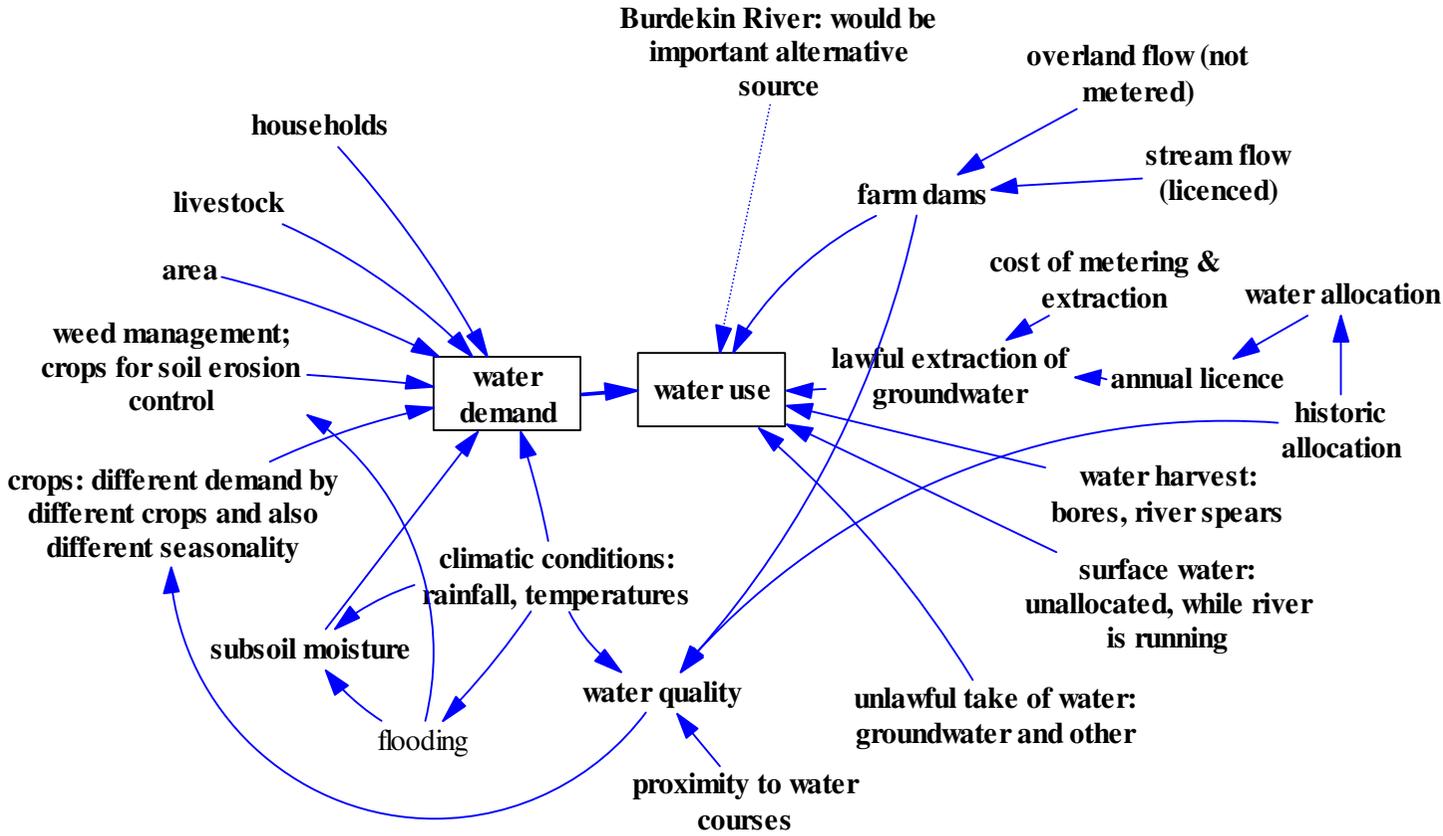
Length of ownership: from 30 years to intergenerational

Research Team: Romy Greiner (facilitator)
Leanne Fernandes (co-facilitator)

RESULTS

SYSTEMS DIAGRAM

Workshop participants were asked to identify factors that they considered pertained to both water demand and water use. This information led to the construction of the following systems diagram (Figure 1). The arrows indicate the direction of influence of one factor upon another.



In the systems diagram, above, one item require clarification. Technically, there are water licences or water entitlements in the Bowen Groundwater Management Area; there are no water “allocations”. However, focus group participants referred to water “allocations” and the participants terminology is reflected in the diagram.

In producing the systems diagram, participants explained that historic over-allocation of some aquifers led to salt water intrusion and decline of water quality in those aquifers. They also described how farm water storage can replenish underground aquifers and improve water quality. The focus group described how increased proximity to water courses is correlated with improved water quality.

COMPLIANCE DIMENSIONS

Here we explore the findings of the workshop as they pertain to each dimension of compliance. In most instances, responses were provided to questions used as prompts (see Attachment), however, discussions sometimes covered the topics to be addressed before the questions were asked. The overarching view (or views) of the group is presented and an example of the types of comments made which substantiate this view is provided within each compliance topic discussed. These latter are direct quotes from the focus group discussions.

Knowledge of the rules

Definition: the familiarity with and clarity of legislation among the target group.

From discussions it was clear that, on average, the group had a **high level of knowledge** about the water sharing rules regarding, for example, water entitlements, meter usage, dams, amalgamation of bore licences, Bowen’s Water Management Policy, and zoning. They considered this level of knowledge to be common amongst commercial growers.

“The majority of the commercial growers would have a fairly good knowledge of the [water sharing] rules.”

Knowledge of the water sharing rules seemed to be gained through **grower’s own experiences** and efforts, which included meetings with the Bowen District Grower’s Association, meetings with the Department or phoning the Department directly.

“You have to inform yourself if you are going to run a commercial operation.”

“It’s probably more the hobby farmer, the smaller operator who are getting themselves into trouble more...”

Costs/benefits

Definition: the tangible/intangible advantages and disadvantages arising from compliance or non-compliance with the rule(s), expressed in time, money and effort.

Costs (e.g. for meters, licence renewals) were seen as more of a nuisance as, relative to income, it isn't a great outlay. However, the value for money in paying these costs was questioned.

“Relative to income, it's not too expensive to comply but it's just annoying to pay when there's no real benefit.”

“They just handed out the meters and said they're compulsory, you must install them...so they forced you to bear the cost. We're not paying for water, we're paying for the cost of compliance.”

Planning for the planting year is one of the intangible costs of compliance.

“...you sit down at the start of the season and do the crop planning because you know how much your allocation [entitlement] is, you know how much rain you've had, how much water is in your dams... you do this so you don't get prosecuted....”

Degree of acceptance

Definition: the degree or extent to which the policy and legislation is considered acceptable by the target group.

There was an **acceptance** among the group that management of the aquifer is required and of benefit to everyone.

“We don't want the aquifer to get too low at the coast so that there's saltwater intrusion.”

“Now there's a Bowen Water Management Policy with 14 zones. A figure is available per zone and it's related to the quantity and quality of water.”

“We understand that we need to look after the aquifer together via a process of developing a Management Plan – it was a compromise but it was reasonable.”

However, there was some **disgruntlement regarding some specific rules**.

“There is a disparity of allocations which has historical roots.”

“Regulators are not reviewing allocations because it's too hard.”

“Rules are decided in terms of water quality protection in lower delta areas; they don't apply further up the catchment.”

“A gap is that it [the Bowen Water Management Policy 2007] removed the ability to apply for over-allocation e.g. in a wet year.”

Target group's respect for authority

Definition: the extent to which the target group respects the government's authority.

There is respect, in general, for the people in the region trying to do their job at the Department.

“Yeah, in general.”

“The people are trying to do the job, I've a lot of respect for [them], because it's a very difficult job, I think.”

However, the **respect for the Department in general is low.**

“...the level of support that the Department offers for them [the regional water officers] to do their job is atrocious. There's not enough personnel...”

The move of the regional office to **Mackay was seen as positive** by this group.

“...we have a bit more ability to work with them in the new arrangements with them working out of Mackay. It seems to be better.”

Non-government control

Definition: the probability, as estimated by the target group, of positive or negative sanctions on their behaviour other than by the authorities

Amongst the focus group participants, there was the opinion that, in general, farmers do notice and discuss irrigators who are not complying with s808 of the *Water Act 2000* (i.e. stealing water). However, whilst they are not necessarily happy about it, they weren't likely confront the non-compliant irrigators.

“People do notice if irrigators are doing the wrong thing because it's your neighbour or someone who's a neighbour to someone else. People talk between themselves.”

“I wouldn't confront anybody, personally.”

“Those who disregard the rules are operating outside the network of farmers and they can be major farmers.”

“We're not going to be happy if someone else rorts the system...”

Probability of reporting non-compliance

Definition: the probability, as estimated by the target group, of a violation detected by anyone other than the authorities, being reported to a government body.

Focus group participants thought that if people are being impacted directly, then they are more likely to report illegal water use to the Department.

“I’d only report it if they were directly impacting on my business.”

“At the public meetings I’ve been to, people don’t shy away from telling the Department to do something about it. Other people have said it. If it’s blatant overuse through not doing your sums then the rules are there, use them.”

However, beyond that, these water users consider that it is the Department’s job to identify a problem.

“...it’s not up to us to do the Department’s work, really.”

Probability of inspection

Definition: the probability, as estimated by the target group, of an inspection by the authorities as to whether rules are broken.

Participants mentioned that there are twice-yearly inspections and notice is given 7-14 days ahead of when the inspectors will be there.

“There’s not the chance of inspection; it happens, twice yearly now.”

Probability of detection

Definition: the probability, as estimated by the target group, of a violation being detected in an inspection carried out by the authorities.

There was scepticism regarding the ability of the inspections to detect illegal water use unless it’s registered through the meter.

“There are holes in the detection.”

“These guys (the meter readers), they drive in, they know where our meters are, drive to those meters, they take their test bore and then drive out.”

“They’re not doing surveillance as such.”

“There are means of by-passing the meters.”

“..there are a few bores without meters on them.”

Targeting

Definition: The perceived (increased) risk of inspection and detection of a violation resulting from the targeting of businesses, persons, actions or areas to be inspected.

Bowen wasn't considered to be targeted although there was a feeling that it's more managed – with regard to water – than other regions and that this is unfair.

“Bowen's not treated the same as all the other regions up and down the coast. The government ran out of money to set up Water Management Policies in other areas to the north of us (not sure about south).”

Offenders in the region didn't appear to be selected for extra attention.

“People who have been prosecuted are not especially targeted.”

Probability of penalty

Definition: the probability, as estimated by the target group, of a penalty being imposed if an inspection reveals that a rule has been broken

There is seen to be a high chance of a penalty if illegal activities are successfully detected.

“The chance of a penalty is high if you do get caught.”

“If you can't show cause, then you will be prosecuted.”

“It appears to be better now that it's run out of Mackay.”

Severity of penalty

Definition: the severity and nature of the penalty associated with the violation and additional disadvantages of being penalised.

Penalties were seen to be severe enough to deter small farmers but not big growers. Workshop participant considered that this was, at least partly, due to the alignment of penalties with percentage overuse so that the same amount of overuse for a farmer with a small allocation leads to a far greater fine than that same amount of overuse by a farmer with a large allocation.

“The penalties are adequate to deter small growers but not large growers.”

The lack of priority placed upon those who blatantly over-use their allocation (versus users who are 1-2% over) was identified as an issue which seems to be being rectified since the move of the office to Mackay.

“They should focus on the blatant overuse by the large commercial farmer whose not going to be hurt in the hip pocket with a \$20 000 fine.”

“..with the big users, they can overuse on that bore twice, and that one, and that one, ... They just forfeit that licence.....that’s what I believe.”

WATER USER COMMUNICATION PREFERENCES

There wasn't seen to be a lot of communication with the Department. Mainly bills and notifications of when the meter readers were coming. However, there wasn't a need seen for a great deal more communication.

“I don't think we need more communication.”

Any additional communication that was suggested was face-to-face. For example, it was suggested that it would be good to have Departmental personnel visit Bowen occasionally.

“It might be beneficial if they considered coming to Bowen a couple of times a year so that industry could meet with them like MPs do or the Ombudsman.”

Another idea raised was that of general meetings to discuss relevant issues.

“Perhaps just some more general meetings where people who don't know – they can go along.”

It was noted that the Bowen District Growers Group, do have such meetings and can invite the Department, however attendance by growers is not always high.

It was suggested that the Department use existing communication forms (e.g. newspapers, Agricultural newsletters) to distribute information to water users.

It was suggested that advice given over the phone should be receipted to provide some assurance to farmers given that advice.

“They probably need to start giving receipt numbers for advice they give over the phone like the ATO do. Where you don't have someone saying “Yes you can do that” and then someone leaves and the next one says “I never said you could do that”. And, in our case now, we're facing a potential prosecution. They need better record keeping. “

The website was cited by one participant as being quite good in that it provided them with the information about who to ring.

“I'm not a computer user but what I've seen on the website is pretty good and it gives you the contacts of people you can ring...”

Computer literacy was still not guaranteed amongst all participants.

“If you're not a computer user, I'm not either. I'm computer illiterate.”

Outstanding issues that the group thought should be dealt with included:

- review of the water licences with specific attention to the inequity of land versus entitlement volume; and

- review of the zones, including some zone borders, in particular the fact that some heavily cropped areas outside of the zones are probably sourcing water from the aquifer within the zones but are unregulated.

However, it was believed that these reviews are unlikely to occur due to it being seen as infringing upon historically allocated “rights” over water.

CONCLUSIONS

The meeting participants created a systems diagram which demonstrated the complexity of factors that determine water demand, particularly crops, weather and the volume of water historically allocated to each water licence.

Of the voluntary dimensions of compliance explored by the focus group, most were seen as contributing positively to compliance (e.g. knowledge of the rules, the costs of compliance, acceptance of the rules, respect for the authority of Departmental officers – if not the Department more generally) with the exception of social controls which were not in evidence according to the focus group workshop results.

Of the enforcement dimensions of compliance, this focus group did not think they contributed strongly to compliance. That is, they thought there was a low probability that water users would report one another, low probability of detection from inspections (although the likelihood of inspections themselves was considered 100%), no targeting of offenders, low probability of prosecution and of adequate penalties being applied.

Communication suggestions included:

- More face-to-face meetings either in groups or by staff visiting Bowen
- Receipts for phone advice (and better record keeping of that advice)
- Use of existing newspapers/newsletters to share information

The website was acknowledged as being useful by only one participant who did not use computers. Email communications were not mentioned.

PROCESS FROM HERE

Focus group participants were asked to return comments on the draft report within a week of receipt of the draft report. This period has lapsed and no comments were provided.

The focus group workshop reports have been provided to the Department as they form part of the project deliverables.

The reports also provide an important foundation for water user interviews, which will be conducted in coming months. Again, water users in the Bowen and Coastal Burnett Groundwater Management Areas will be randomly selected from the water licence holder database and those selected will be requested to participate in the survey. The interviews will be likely conducted face-to-face at a locality preferred by the water user (on farm or in the nearest town).

In addition, these reports, combined with the results from the water user interviews will provide the foundations for a final report by the consultants to the Department about the topic of compliance by water users with S808 (that pertains to the illegal take of water) within the *Water Act 2000*.

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ATTACHMENT: FOCUS GROUP - GUIDING QUESTIONS AND PROMPTS

SPONTANEOUS COMPLIANCE DIMENSIONS

KNOWLEDGE OF THE RULES

Familiarity and clarity of legislation among water users

a. Familiarity

- Do water users know the water sharing rules?
- Do they only need to make limited efforts to find out about the water sharing rules?
- Is the legislation regarding water sharing not too elaborate?

b. Clarity

- Are the water sharing rules formulated in such a way that water users can understand them easily?
- Are water users actually capable of understanding the water sharing rules?
- Is it sufficiently clear to water users what the water sharing rules apply to?
- Is it clear to water users what water sharing rule applies?

Points of attention

- Use of extra educational materials
- Use of general media (radio, TV, newspapers)
- Giving advice through workshops, and trade organisations
- Setting up a Helpdesk for questions
- Providing information in other languages

COST/ BENEFITS

The tangible/intangible advantages and disadvantages of breaking or complying with the rule, expressed in time, money and effort

a. Financial/economic

- According to water users, does complying with the water sharing rules cost relatively little time, money or effort?
- Do they think that breaking the water sharing rules will yield little or no advantage in terms of time, money or effort?
- Do they think that breaking the water sharing rules could yield any disadvantages?

- Do they think that complying with the water sharing rules could yield any advantages?

b. Intangible

- Do water users believe that complying with the water sharing rules yield emotional or social advantages?
- Do water users believe that breaking the sharing rules yield emotional or social disadvantages?

Points of attention

- Inspection pressure from the government (burden) can be diminished if the rules are abided by.
- Financial rewards for compliance.
- Extra effort or costs for non-compliance.
- Emphasising good reputations or making them visible (quality marks)
- Publish bad reputations (black lists).

DEGREE OF ACCEPTANCE

The degree to which water users regards the policy and the rules as acceptable

a. Acceptance of policy objective

- Do water users regard the water sharing policy (and the principles it is based on) as reasonable?
- Do water users feel they share responsibility for putting this policy into practice?

b. Acceptance of effects of policy

- Do water users regard the way the policy objective is being put into practice as acceptable?
- Do they regard the resulting water sharing rules that follow from this policy as acceptable?

Points of attention

- Support among water users
- Take account of possible arguments put forward by water users: defending their own property, privacy, right to work and income, rights of the environment, judgement of seriousness of offence or damage caused, division of power and money in society, right of the weaker opposed to the stronger, political beliefs, religious conviction.
- Water users' participation/involvement (interactive) in the policy-making process.

TARGET GROUP'S RESPECT FOR AUTHORITY

- The extent to which water users are willing to respect governmental authority

a. Official authority

- Do water users generally abide by the rules?
- Do water users generally abide by the water sharing rules?
- Do water users generally have respect for the water regulating authority?
- Do water users respect the judgement of those responsible for enforcement of water sharing rules?

b. Competing authority

- Are water users' own values in line with legislation?

Points of attention

- Education
- Attention to standards and values
- Emphasize respect for individual officers versus the government department

NON-GOVERNMENTAL CONTROL (SOCIAL CONTROL)

The probability, as estimated by water users, of positive or negative sanctions on their behaviour other than by the authorities

a. Social control

- Do water users feel that any water sharing violation would soon be noticed by its community?
- Does the water user community generally disapprove of such violations?
- If so, does the community try to correct this behaviour in some way or other?
- And does this social sanction have an impact on water users?

b. Horizontal supervision

- Is there any horizontal supervision, e.g. financial auditing, disciplinary codes, auditing for certification?
- Does this horizontal supervision contribute to better compliance with water sharing rules?
- Do water users see this horizontal supervision as an additional form of control? And does this horizontal supervision have an impact on water users?

Points of attention

- Inspection possibilities by water users or professional group
- Visibility of violations for passers-by, stakeholders, trade associations
- Possibilities of informal sanctions: status, image, rejection from the group
- Loyalty of inspectors or inspecting bodies towards those inspected.
- Possibilities of (legal) pressure
- Possibility of social control in effect encouraging violations

ENFORCEMENT DIMENSIONS

LIKELIHOOD OF REPORTING

The probability, as estimated by the target group, of a water sharing violation being detected by anyone other than the authorities and being reported to a government body.

- According to water users, is its community generally inclined to report detected water sharing violations to the authorities?
- According to water users, are those exercising horizontal supervision generally inclined to report detected violations to the authorities?
- Do water users think that people generally know which government department to report detected water sharing violations to?

Points of attention

- The nature of the water sharing violations: not covering one's tracks, detection only possible by catching someone in *flagrante delicto*, can the violation be proved, c.f. also dimension 8.
- Interest of those detecting the water sharing violation in reporting it to the authorities.
- Fear of those reporting a water sharing violation of an (angry) reaction from the perpetrator.
- Encourage reporting by tip money or opening a tipline or complaints service

LIKELIHOOD OF INSPECTION

The probability, as estimated by water users, of being inspected by the authorities for possible water sharing violations

a. Records inspections

- Is there a major objective likelihood of records inspections?
- Do water users think that there is a major likelihood of records inspections?

b. Physical inspections

- Is there a major objective risk of a physical inspection?

- Do water users think that there is a major risk of a physical inspection?

Points of attention

- Actual objective risk of inspection (number of inspections per year or per person/business, number of inspections per violation or per water user)
- Subjective risk of inspection and difference with the objective risk (depends on visibility of inspections, knowledge of inspection policy, prior experience with inspecting bodies, experiences of others, ideas on government activities and the impact of inspections)
- The accuracy of the inspecting body, response time of inspectors, impact of inspections by using auditing powers, show of strength, such as visibility of inspections, use of uniforms
- “Reward response” from the authorities: compliance is rewarded with fewer inspections (and vice versa)
- Inspection burdens may invade one’s privacy, serious delays, costs to be borne by the person inspected.
- Are inspections are always unpredictable (or else people will behave accordingly) by differentiating supervision and inspections (in the fullness of time) in terms of (1) frequency, (2) time, (3) depth and (4) place?.
- Are there a number of random inspections to keep them unpredictable? Also ensures that everybody always runs the risk of being subjected to an inspection.

LIKELIHOOD OF DETECTION

The likelihood, as estimated by water users, of a violation being detected if the authorities inspect

a. In a records inspections

- Is all the data being checked in a records inspection?
- Is it easy for the inspectors to detect violations?
- Is it difficult to falsify records?
- Is there a major objective risk of detection in a records inspection?
- Do water users think that there is a major likelihood of detection in a records inspection?

b. Physical inspections

- Is everything being checked in a physical inspection?
- Is it easy for the inspectors to detect violations?
- Are violations restricted to a particular place and/or time?
- Is the inspection technology used sophisticated enough?
- Is there a major objective likelihood of detection in a physical inspection?
- Is the objective likelihood in a physical inspection large?

Points of attention

- The nature of violations (not covering one's tracks, detection only possible by catching someone in *flagrante delicto*)
- Camouflaging violations (by screening off, hiding, changing the composition of indications of a violation, by misleading the inspector)
- Possibilities of tracing whom the actual perpetrator/responsible person is (consider legal structures, making the actual perpetrator not the legal addressee, the causal link between the violation and perpetrator is missing).
- The capacity of the investigating body: special expertise of techniques, which they need, sufficient resources available at investigating body.

SELECTIVITY

The perceived increased likelihood of inspection and detection of a contravention resulting from selecting the businesses, persons, actions or areas to be inspected

- Do offenders have the impression that they are always inspected more frequently than those who comply with the water sharing rules?
- Do selective inspections find more offenders, relatively speaking, than non-selective inspections?
- Do water users believe that the enforcement agency is capable of 'separating the chaff from the wheat'?

Points of attention

- Targeting
- Violation ratio in random and selective inspections
- Cost of the discovery of a water sharing violation
- Possibilities of setting up databases
- Possibilities of linking files from various enforcement organizations

LIKELIHOOD OF SANCTION

The likelihood, as estimated by water users, of a penalty if a water sharing violation is detected in an inspection

- Is there a major objective likelihood of a penalty being imposed once a water sharing violation is detected?
- According to water users, is it easy to prove a water sharing violation?
- Do water users estimate the likelihood of a penalty as a result of a detected violation as being high?

Points of attention

- Lack of capacity
- Lack of evidence

- Social relevance of the offence (policy to dismiss charges under certain conditions e.g. minor violation)
- Legitimate non-enforcement policy of the enforcement body
- Errors in the implementing or enforcement bodies.

SEVERITY OF PENALTY

The severity and type of penalty associated with the violation and additional disadvantages of being penalised

a. Severity of penalty

- Do water users know what penalty they face in the event of a violation?
- Do they regard it as severe?
- Is the penalty imposed quickly?
- Does the enforcement of the penalty have any additional tangible or intangible disadvantages for the person concerned?

b. Damage to reputation as a result of penalty

- Do water users mind that it becomes known that have been penalised?

Points of attention

- Disadvantages of penalty for the person concerned
- Types of sanction: financial, damages, goods seized, deprivation of illegally obtained profits, imprisonment, restore to legal situation, alternative punishments, withdrawing rights and favours, bringing business operations to a halt, etc.
- Additional disadvantages of enforcement
- Social status, reaction of community, court fees, legal fees, costs of furnishing proof
- Financial capacity of perpetrator
- Psychological effects, such as the manner of presentation and public nature, speed with which a sanction is imposed, the “appearance” of the sanction system applied: criminal law, disciplinary rules, administrative law, private law.
- Possibilities of alternative penalties