BURNETT WATER USERS FOCUS GROUP WORKSHOP 4

17TH MAY 2012

AS PART OF PROJECT ENTITLED

DELIVERY OF FOCUS GROUPS AND INTERVIEWS FOR THE NATIONAL WATER COMPLIANCE FRAMEWORK

FINAL REPORT

Romy Greiner[1] and Leanne Fernandes[2]

[1] River Consulting Pty Ltd, Townsville and
[2] Earth to Ocean Consulting, Townsville

TABLE OF CONTENTS

SUMMARY

This document reports the outcomes of the final 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 17th May 2012 at the Bundaberg Brother's Sports Club. Four water users attended the workshop.

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

The workshop participants believed that local farmers, whilst having a good grasp of the water sharing rules, gained their knowledge of water management rules and regulations through personal experience.

They thought that the rules regarding water management and consumption were relatively fair, and in general, impartially implemented.

Whilst the cost of complying wasn't seen as great, the community's negative attitudes towards water theft were considered unlikely to either deter illegal water use or lead to reporting of it.

Local departmental and Sunwater officers were respected as they'd been around a while and therefore had gained knowledge in that time. However, the inspection ability of departmental staff, to detect non-compliance, was seen as restricted to reading meters. This was seen as a major limitation the department's ability to gather evidence for prosecution.

Once prosecuted, except in the case of small farmers, the penalties were seen as inadequate to deter future illegal water use.

The presence of a local office was appreciated, although the development of personal relationships between departmental staff and local water users, caused some participants to believe that it could make it difficult for those officers to impartially pursue illegal water activities.

In terms of communication preferences, letters were seen as useful for imparting general information, whilst phone calls and SMSs were seen as useful communication tools under most other circumstances. The internet was seen as being less useful for communicating information.

INTRODUCTION

This is a report of the final 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 (Bowen GMA or BGMA), 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 was 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

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: 17 May 2012

Time: 09:30—11:30

Location: Brother's Sports Club, Bundaberg

Participants: 4 water users
Property areas ranging from 10 to 1250 acres some of which is leased; not all used (e.g. some too wet); some properties farmed by other family members
Enterprises including sugar cane, small crops, avocados, gardening/potting
Water licences of 2ML (domestic) to 340ML – not necessarily correlated with land size; some include surface water entitlements as well
Length of ownership: 30 years to intergenerational

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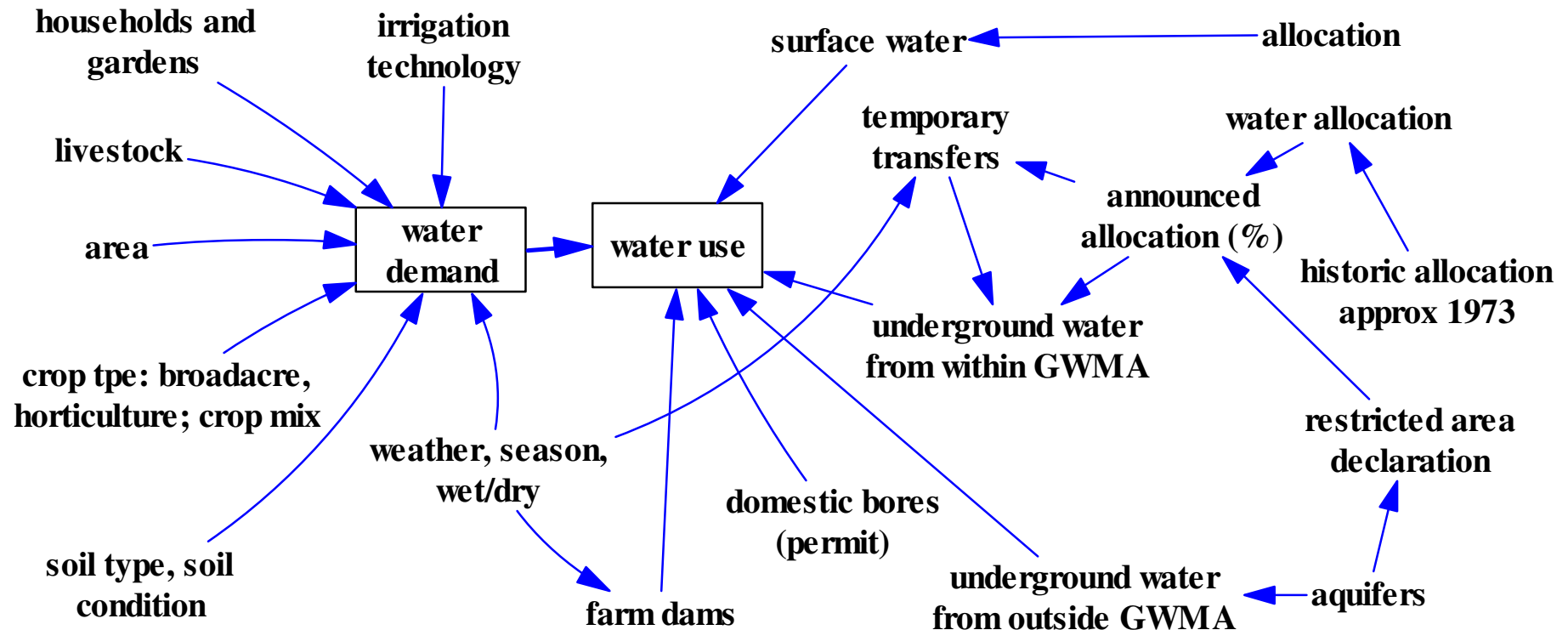Leanne Fernandes (co-facilitator)

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.

Figure 1: Systems diagram of factors determining water demand and water use

households and gardens

irrigation technology

surface water

allocation

livestock

temporary transfers

water allocation

area

water demand

water use

announced allocation (%)

historic allocation approx 1973

crop tpe: broadacre, horticulture; crop mix

underground water from within GWMA

weather, season, wet/dry

restricted area declaration

domestic bores (permit)

soil type, soil condition

farm dams

underground water from outside GWMA

aquifers

In the systems diagram, above, a couple of items require clarification. Technically, there are water licences or water entitlements in the Coastal Burnett 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.

The "restricted area declaration" refer to the boundary of the Coastal Burnett Groundwater Management Area, within which there are restrictions upon the take of groundwater.

The "underground water from outside the GWMA" in the systems diagram refers to the fact that there are farmers outside the "restricted area declaration" which the focus group considered to use water which was actually sourced from the same aquifers that water licence holders within the Coastal Burnett Groundwater Management Area also source.

COMPLIANCE DIMENSIONS

Here we explore the findings of the focus group 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.

The participants considered that farmers knew about the water sharing rules but learnt about the regulations through personal experience and relationships, and the fact that if you've done something wrong you'll be told about it.

> "You know the rules and regs through experience, I suppose. Historical knowledge – if you've done something wrong you're told about it."

> "An officer from NRM or Sunwater tells you."

Prosecutions were noted to be in the newspaper which helps people understand the rules.

The website was deemed difficult to use.

> "I think sometimes you need to speak Swahili to understand some of these websites."

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.

Participants reported that there used to be costs (calculated per ML) for groundwater use, but now it's merely an across the board cost for meter purchase, maintenance and servicing (e.g. meter reading). There are also costs involved in putting in the new infrastructure (e.g. pipe work) required for the new meters. However this was not considered an onerous expense by this group.

> "…it's not a big cost really."

The biggest cost mentioned was the electricity for pumping.

A (social) cost of non-compliance was seen to be people's attitude towards those not complying, however, this attitude was not necessarily a deterrent.

> "From my knowledge, from the way the neighbours talked about the people stealing water, they were pretty disgusted and they were wary."

> "And people who would do such a lowly act would be such hard nuts that they wouldn't care … [they'd say] 'Stuff you Jack, I'm alright'."

Degree of acceptance

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

The argument for sustainable water management seemed to be generally accepted, with some participants indicating that water users have a shared responsibility in this management.

> "I think most farmers recognise that the aquifers are a finite resource and they're acting in their own self-interest because if it's over-exploited they're the ones who are going to suffer in the long run."

The way in which the *Coastal Burnett groundwater management area water sharing rules and seasonal water assignment rules* policy is implemented was considered as relatively fair.

> "I've overused the allocation [entitlement] in one of the restricted years… and it was my blue and I notified them but they did take that allocation [entitlement] off the next year's allocation [entitlement]. But they were fair."

> "I haven't heard of anyone challenging the rules."

There was a distinction between going over one's entitlement through the meter, which was seen as honest overuse, versus deliberately by-passing the meter, which was seen as stealing.

> "It should be seen as two different concepts: by-passing your meter should be called stealing and the other one should be called unlawful usage."

Correspondingly, the penalties applied to each were not seen as fair. They are seen as penalising the small farmer over the large farmer.

> "If I go over my allocation by 10ML, then I've gone over it by 500%. It's based on percentage. If Charles goes over by 10ML then it's only 18%. I'm the bigger criminal because I've gone 500% over!"

It was also acknowledged that some farmers were intentionally non-compliant with the rules.

> "I don't care how much you make them aware, they're still going to do it. They know the rules."

Target group's respect for authority

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

Amongst the participants, respect for the local Sunwater and DERM officers was reasonably high.

> "Most of the fellas in Sunwater, they've been in the game a long time, they know what they're doing. They're pretty fair, they're pretty good, in my experience."

However the group was less impressed with the perceived "centralisation" of water use decision-making (e.g. with decisions about water licences) within the department.

> "It always used to be done locally and it's changed – for what reason, I don't know. Another centralisation process. Because you've got the officers on-the-ground here who've got the local knowledge and they make the recommendation anyhow..."

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

Whilst the focus group acknowledged that there is a general awareness in the community that water use violations do occur , usually no action is taken.

> "People knew of illegal water use but didn't confront their neighbours. They would talk to others about it though."

> "No-one did anything about it, not that I know of. Some of them might have dropped a note or a hint to the Department. They didn't say if they did."

These violations were estimated to be more prevalent during times of drought.

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.

The participants conceded that there was a reluctance to take action against perceived offences which leads to a low level of reporting.

> "People don't report because they don't want to get on the wrong side of their neighbours."

> "It's the great Australian tradition of not being a rat, a dobber."

Probability of inspection

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

It was widely thought that anyone with a water licence has their meters inspected.

> "Everyone with an allocation [entitlement] gets inspected [gets meters read]."

However it was also believed that nothing else gets investigated when these inspections occur.

> "All they do is read the meter, that's all the inspection they do."

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.

The limited scope of the inspection led the focus group participants to regard the chance of being detected for taking water illegally (except through the meter), as very low.

> "With more comprehensive inspections you run into the good old Privacy legislation. If you're going to do illegal activity, you're not

going to do it in front of everybody so that means you do it at night-time and if your meter's not working, how are you going to pick that up? If you're dropping a pump into the channel at night-time..."

"As one officer said to me, 'We're not authorised to come onto a farm except in our usual business.   If our usual business is to come and read your meter, it's not our business to poke about at eight o'clock at night and look at things....'"

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.

There was no indication, from the group, that they perceived that previous offenders were likely to be inspected more frequently.

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

The participants suggested that the majority of water users in the community were aware of, and took note of, Water Act 2000 prosecutions that were publicised in the local newspaper. However they noted that the likelihood of a penalty subsequent to detection was not guaranteed. This was, in part, due to the restrictions placed upon the inspector in their detection efforts (see above) and the onus of proof required to prosecute.

"A successful prosecution on the illegal take of water will be reported in the paper as stealing."

"And there was a fair bit of illegal water use going on in those drought years on the surface water. They were by-passing the meters.   It's nearly impossible to do it on underground.   To my mind and knowledge there was two prosecutions in the Bundaberg area but there was a lot more than that going on."

"....the terms of gathering admissible evidence are so restrictive...."

"I questioned one of the water officers, a good friend of mine, and he said 'Look, the proof that we have to provide is onerous. It's nearly impossible to provide enough to do it. You need to take photographs and catch them in the act.'"

Severity of penalty

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

Penalties amounts were believed to be based, amongst other things, on the percentage of over use, relative to the actual water entitlement amount. This was seen as unfair to smaller operators. Furthermore, whilst it was acknowledged that the *Water Act 2000* made provisions for larger fines, these were not seen to be applied appropriately.

> "There's heavy fines." "But no-one ever get it."

> "They're smacked with a wet lettuce. In one case I know of, sticking a bit of wire in a meter to stop it turning over is fairly against the rules."

> " And the ones that were prosecuted, there are heavy fines, but they were charged the estimated amount of water that they used (big deal!) and the penalty was very minimal. It was just a joke."

> "It was worth their while to do it, in other words. Sure it was. They'd do it again."

There was a general feeling amongst the participants that, for serious breaches, the penalties should be higher.

> "A water license is just that whether it's good for 3 years, 5 years or 10 years, depending on how much you pay up front, and serious breaches, the license should be restricted or withdrawn like your car licence."

The level of service and the longevity of tenure, of departmental staff in the local office in Bundaberg was acknowledged and appreciated.

> "The local office is convenient.   Most of those guys have been in the job for a long time. They're not moving through here."

> " when I ring up, I know the person I'm dealing with. I like to build relationships."

However, a concern was raised that those relationships could potentially impede prosecution efforts.

> "Relationships that can be built between officers and farmers can impede prosecution.   Especially if you go out of your way to build that relationship to avoid prosecution. So I can see the use of an independent unit of prosecutors."

Using letters to share general information was seen as useful.

> "I think just general sorts of information is good just in a letter."

The use of phone or SMS for more urgent communications was seen as a good option.

> "But if there's something more urgent, well, probably a phone call would be better..."

> "SMS is good. They do that now."

The internet didn't rate well as a useful communication tool.

> "Internet, they're not into that stuff."

> "This information's on the website. They used to put it in the paper, but if you can navigate the website, which I haven't done yet."

CONCLUSIONS

The systems diagram created by focus group members illustrated the complexity of factors that determine both water supply and demand. This included factors such as crop types, weather, technology, water sources, specific water licence requirements and historical decisions about the volume of water to attribute to licences.

Focus group participants considered that the voluntary compliance dimensions were relatively well supported. For example, they believed that: water users know the water sharing rules which are seen as fair, the costs of compliance are low, and departmental officers are respected. However, local attitudes and behaviours towards water theft/thieves were considered unlikely to deter illegal water use.

In terms of the enforcement dimensions of the use of water, locals were considered unlikely to report illegal water use and inspections, whilst reliably conducted, were considered unlikely to detect non-compliance because they were seen as restricted to reading meters. There was also concern expressed that the development of personal relationships between departmental staff and local water users could make it difficult for those officers to impartially pursue illegal water activities. If prosecuted, except in the case of small farmers, the penalties were seen, by the focus group, as inadequate to deter future illegal water use.

For communication purposes, the presence of a local office was appreciated. Letters were seen as useful for imparting general information, whilst phone calls and SMSs were seen as useful communication tools under most other circumstances. The internet was seen as being less useful for communicating information.

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*.

REFERENCES

Bosch, O. J. H., C. A. King, J. L. Herbohn, I. W. Russell, and C. S. Smith. 2007. Getting the big picture in natural resource management—systems thinking as 'method' for scientists, policy makers and other stakeholders. Systems Research and Behavioral Science **24**:217-232.

Herzfeld, T. & Jongeneel, R. 2012. Why do farmers behave as they do? Understanding compliance with rural, agricultural and food attribute standards. *Land Use Policy, 29***,** 250-260.

LEEC 2004. The 'Table of Eleven': A versatile tool. The Hague: Ministry of Justice, Law Enforcement Expertise Centre.

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