# CRITICAL ISSUES, KNOWLEDGE GAPS AND HOW DO WE GET MORE INVESTORS IN?

# Round Table Discussions

## I. FOCUS QUESTIONS

1. What are the critical issues?
2. Where are the knowledge gaps?
3. How do we get more landholders and investors involved?

Workshop participants were organized onto thirteen tables and asked to discuss and respond to the above three focus questions. A good mix of professions and organizations were represented at each table.

Each table spent about an hour discussing the three questions and transcribing points onto butchers paper. After one hour, each table reported back to the workshop. The main points from each table were summarized for the benefit of the larger group.

## II. CONTENT ANALYSIS

Following the workshop, notes from each table were transcribed into separate word documents and grouped under the three questions. About 40 pages of points were generated. On analysis of the points, eight subject categories and several sub-categories within each category were identified. Each point was then assigned to a category. The identified categories are:

***Definition of NSF***
What exactly is NSF and where does it fit with current knowledge and practice?

***Current capacity***
There is high public demand for NSF but very little capacity to implement the approach. Currently NSF = Peter Andrews.

***Policy and legislation***
What is the relationship between NSF and Local, Regional, State and Federal Government agencies, policy and legislation? Does current policy enable NSF or does it impede it?

***Biophysical issues***
What biophysical issues does NSF affect that we need to know more about?

***Social issues***
Apart from the relationship between NSF and Government, what other social issues should be considered?

***Economic issues***
How should NSF be funded? What are the economics of NSF? How can ecological services be accounted for economically?

***System/holistic issues***
NSF is a holistic approach to land management. It's an approach that claims to embrace the biophysical interrelationships that sustain and enhance landscape fertility. How then is this understanding integrated into the existing cultural framework of catchment and landscape management?

***Education, training and knowledge***
The key to broader understanding and adoption of NSF is through appropriately developed and targeted education and training programs as well as a commitment to sharing and debating the knowledge that is related to NSF as widely as possible. How is this best done?

A full transcription of the workshop notes is presented below. An **executive summary** was also produced and an **NSF Action Plan** based on the key points of the workshop providing the basis of a way forward for NSF.

## 1. DEFINITION

The participants at eleven of the thirteen tables felt that definitions surrounding NSF needed to be improved, including better linking the concept with other more established ideas. Key points included:

- Defining the big picture, the vision for NSF.
- More clearly defining who is driving NSF, and what is the concept and the practice of NSF - at different scales, for the benefit of farmers, planners, and advisors.
- How is success defined? How is this monitored and evaluated?
- Defining the language – sustainability, interpretation of landscapes, irrigation vs rehydration.

### *1.1 Picture/vision*

- "picture" of result/end result. Bigger (broad/national picture) (9)
- Strong leadership and vision (10)
- Big picture vision (10)
- Describe benefits. Able to prove it works. National, physical, sust etc. local/catchment, personal/social (3)

### *1.2 Definition of NSF*

- Who should be driving? (12)
- What is NSF entity and role? (6)
- No core definition of NSF, its principle techniques and its role. Define better what NSF is about, its components and what it is trying to achieve. Include how it works during a high rainfall cycle (1)(6)

- What are desired outcomes? (4)
- Limits to achievement – social, not just environmental/financial .i.e. process diversity. (3)
- Show where NSF fits in (with other landscape/farm planning and management progams e.g. Prograze, Landscan, Rivers Styles, property management planning etc.). (3)
- Farming (biodiversity, water and carbon). Define and make important. (3)
- What NSF options are available? (3)
- Need to define the hierarchy of doing NSF. (3)
- Not just instream structures but entire farm/landscape management (e.g. energy, heat, water etc.). (4) (12)
- Linkages between the concept and the detail. (10)
- Consolidate the NSF message with Tongway and others to promulgate a single message that draws together a holistic approach and best practice model. (10)
- Farm practices that are encompassed by NSF. (10)

  What activities constitute NSF? (5)
    - Stock exclusion (from riparian zones and wetlands)?
    - Water table management?
    - Is it a set of general principles?
    - How does it fit regulation/legislation?
    - Property specific mix of activities?
    - What happens post restoration? What duty of care does the landholder have? (5)
- Clearer simpler presentation of NSF for farmer's benefit with clear delivery mechanisms. (10)
- Develop a model to take NSF forward (3)

***1.3 Defining success***

- Need to show NSF is superior to other models/ideas and get the common definite success points. Define standards. (3)(7)
- How do we define and monitor success? (6)
    - Set goals; productivity changes etc.
- What are the best indicators of success or otherwise? (6)
- How do we evaluate NSF operators when these people are also "top operators" anyway? (5)
- How do we translate NSF methodology to a funding stream for research and onground activity? (6)
- What are desired outcomes? Production, clean water, biodiversity etc. + how you get it (e.g. weeds). (12)

***1.4Landscape definitions***

- Define what is sustainability? (so we have a vision of this) (3)
- Better definitions on how to interpret landscapes. Accredited techniques (e.g. River Styles) (1).
- Rehydration v irrigation (11)

## 2. CAPACITY

Participants at eight of the thirteen tables expressed concern that there was currently very little capacity within the system to deal with the rapidly growing public demand for NSF information or to support implementation of the approach.

### *2.1 NSF capacity*

- Currently NSF = Peter Andrews; no advisory or NGO support. (5)
- Lack of skilled trainers to assist with implementation. (2)
- Problem of training facilitators to "lead" practice and implementation. (5)
- How do we train sufficient people in Peter's NSF skills? (2)
- Listing priorities, limited resources (financial, human, time) (2)
- Expecting who to do? Who to lead? Who is responsible? (3)
- Next problem is achievement (3)

### *2.2 Land manager capacity*

- Limited knowledge of where it can be applied. (2)
- Problems of implementation. What? How? When? (5)
- Why NSF (which seems simple) is so difficult to implement (and may create a disaster). (3)
- Isolation of landholders. Work, work, work. Need time to plan and learn. (9)
- Land manager capacity (training, accreditation). (1)
- Identify and support local champions. (2)

### *2.3 Government capacity*

- Capacity of govt to meet NSF demand. (1)
- Government capacity to support NSF implementation. Investment, legislation, products, staff capacity, incentives. (1)
- Problems of "conventional wisdom" in current advisory services. (5)
- What do we do in short term without making matters worse whilst research is being done? Natural Resources Commission (NRC) approach? (standard) (6)

### *2.4 System Capacity*

- Impacts of and dealing with lots of interest in implementation at same time (esp now). (4)
- Impacts of massive uptake/implementation. (12)

## 3. POLICY AND LEGISLATION

Participants at ten of the thirteen tables saw current government policy and legislative constraints as critical impediments to the broader adoption of NSF. Some tables saw these issues as a much bigger impediment to adoption than the lack of scientific research.

***Issues:***

- Policy and regulatory impediments and their review to enable NSF implementation.
- Licencing of NSF, property and water rights even mortgage law as it relates to agricultural land.
- Greater coordination, integration and institutional support for NSF.

### *3.1 Legislation and regulation*

- Gain government support (analogy with fencing riparian zones) (5)
- What are the policy, regulatory and legal constraints? (10)
- Review legislation to facilitate implementation. (1)(4)(12)
- How do current regulations in each state and territory deal with the water element of NSF? (2)
- (direct conflict) mismatch between current legislative controls and some practices under NSF. (7)
- Resolve uncertainty re: regulation/legislation (includes definition, sites, issues, ethics, treatment of PA, policy). (5)
- What were the original reasons for legislative controls? Can they be modified to remove the conflict? (7)
- Review of all relevant legislation to allow NSF. Why? Climate change – threats to water availability. (7)
- Get regulation/legislation in order so that farmers become "competent" (i.e. not looking for loopholes) (5) (8)

### *3.2 Licencing and property rights*

- Should a licence apply? (6)
- Legal rights and legal equity for all landholders in catchment. (6)
- downstream water rights/licences (11)
- What impact on property rights? (1)
- Mortgage law Re: rural sector (11)

### *3.3 Coordination, integration and institutional support*

- What are roles and expectations of governments, especially CMAs? (4, 11)
- Greater coordination between existing agencies. (10)
- NSF to be integrated into regional delivery model. (6) (9)
- Better integration and alignment of govt: (11)
    - Advice (11)
    - Services (11)
    - regulation (11)
    - one stop shop (11)

- Simplify application process. (5) (8)
- Allow more flexibility for innovative solutions. (7)
- Legal/institutional change (support!) for NSF (13)
- Landholders and government – public good, ownership (13)
- Identifying how NSF integrates with legislation and issues it raises. (1)
- Incorporate NRC standard into NSF. (6)
- Government needs to show leadership in bringing people together - create networks locally. (11)

## 4.BIOPHYSICAL

A broad range of biophysical issues and questions were raised across all the tables. The most popular issues for discussion were those relating to hydrology and water quality. Interestingly the issue talked about the least was weeds. Biophysical issues discussed included:

- Hydrology and water quality
- Soil health
- Animals
- Plants (inc.weeds)
- Engineering
- Biodiversity
- Reading the landscape and landscape function
- Extreme events
- Nutrient cycling
- Climate

### *4.1 Hydrology and water quality*

Hydrology issues received the most attention with downstream impacts seen as the most important.

- Impact of NSF on catchment hydrology. (1)
- Issue of water availability downstream. Less or more? (3)
- Understanding the water cycle (+ its dysfunction) (3)
- Yield from catchments post NSF? (5)
- How does NSF sit with salinity levels in surface and sub-surface water systems? (5).
- Where does the water come from? (6)
- *Hydrology* (7)
    - Understanding of all hydrological settings (high variability in Australia)
    - How applicable is NSF in all settings?
- *Water budgets*
    - NSF impacts on streamflows – quantity, quality, timing.
    - How much water is stored in these rehydrated soils? (7)
- Integration – surface water/groundwater connectivity – implications for downstream users – (studies). (13)

- What are the downstream effects on water quantity and salinity? (2)
- Critical lack of knowledge of water cycle and its interaction with vegetation. (3)
- Quantitative study is required to determine how much water is used by NSF. (6)

### *4.2 Soil Health*

Only three tables discussed soil issues per se. Each table was most concerned about the biological health of the soil and how NSF might impact on the biological health.

- Impacts of NSF on the biological health of the soil. (Carbon, biological activity, microbiology. (1) (4) (12).
- Does NSF improve organic matter levels? How do we quantify this? (7)

### *4.3 Animals*

The major animal question was; how did NSF affect fish habitat, passage and populations? (1) (6) (8) (11)

One table discussed the role of animals in grazing management under NSF. How would you fence and use the riparian area? (1)

### *4.4 Plants (inc. weeds)*

Surprisingly few notes given that Peter Andrews believes plants control the whole system. Even the contentious weeds issue received surprisingly few questions and comments. Only three tables discussed them;

- What are the effects on the distribution of "weeds" in the process of NSF? (5)
- Balance between weed removal v revegetation e.g. willows, blackberries (6)
- Weed removal research (6)
- Re-instatement – importance of groundcover (13)
- Use vegetation to design sustainable future. Even 'weeds' or exotic veg. (3)

### *4.5 Engineering*

During the workshop sessions, NSF was generally referred to positively in terms of how the designs of various structures, such as 'leaky weirs', could be standardized and how these designs could influence engineering design;

- NSF influencing engineering design. Engineering solutions integrated into NSF. (1).
- How leaky should a leaky weir be? (6)
- Consistent and repeatable design and use of structures. (6)

On the second day of the workshop the engineering standards and the hydraulics of the NSF structures at Mulloon Creek became a point of major contention. When manipulating the bed of the creek, major risk factors come into play. If a structure in a creek is under engineered it could wash away possibly causing downstream damage and certainly resulting in greater expense. Design standards generally calculate that the structure should be able to withstand a 1 in 50 year flow event.

Peter Andrews believes that structures can be under engineered if they are designed to de-energise the flow and if they are colonized very quickly by armouring vegetation.

The risk of the structure being damaged or washed away in the short term is greater but, *provided the structures are properly maintained*, in the long-term should be more sustainable.

***4.6 Biodiversity***

These were only a few notes relating to biodiversity.

- Improving/enhancing biodiversity (2)
- Baramul started with high biodiversity and only partially cleared landscape. Would NSF be as successful in a highly cleared area of low biodiversity? What starting point e.g. Biodiversity x area = resilience? (4)
- How does NSF impact on biodiversity? (7)
- Role of biodiversity – (native or total?) – plant & animal! Etc (8)

***4.7 Reading the Landscape and landscape function***

- What landforms does NSF apply to? (4)
- Position in catchment (5)
- What landforms and what part of catchment? E.g. small floodplain (Baramul) v large floodplain (West Wylong) (12)
- How do you map, model and diagnose the 'disfunction' of a floodplain/landscape?(8)
- How do you read the landscape and turn into onground action? (6)
- Linking present scientific knowledge with landscape functions as they now exist – linking theory to practice. (2)

***4.8 Extreme events***

- Understanding extreme events. E.g. drought v large floods. (4) (12)
- What effect would 'large flood have on all the good work? (4)
- Impacts of structures in riparian zones and sediment deposition (4)

***4.9 Nutrient cycling***

- Lower slopes to upper slopes
- Which vegetation is best for nutrient cycling? Weeds? (colonisers)
- Role for genetic engineering? To create more palatable weeds

***4.10 Climate***

- Climate variability – is NSF functional in a range of climates? (10)

There are potentially endless biophysical issues and questions. One philosophical question was; how much science/proof do we need? (presumably before we just get on with it.) (3)

## 5. SOCIAL

Social issues are about human relationships. For NSF those relationships are person-to-person, with communities and business, through to the cross-institutional and inter-government level. Two key points were:

- Trust and respect between ALL stakeholders (13)
- Critical issue: how to broaden the debate, make the issue and approach participatory – e.g. indigenous, local knowledge along side science. (8)

Nine of the thirteen tables had a concern for the social issues that currently surround NSF and would be critical for consideration when implementing the approach more broadly.

### *5.1 Community*

- Who should be driving change? Community? (4)
- Consider the neighbours (3) (5)
- Promote ownership of NSF in the community (5)
- Community feelings, community ownership, communication of principles and processes to alleviate conflict and vested interests. (5)
- (demonstrations) Must include community/social impacts/participation. (5)
- Landcare – FARMER > FARMER - human nature. (8)
- Relationship between scientists and the community. (9)
- Incorporate local knowledge/circumstances for landuse management – one size will not fit all. (11)
- Mulga wireless – local forums (9)

### *5.2 Public*

- Roller coaster ride. The latest new thing. (other relevant programs etc.) (3)
- Social acceptability (2)
- Whose water are we going to use? (6)
- Urban/rural divide (11)
- Utilise city resource → ownership of problem → solutions? (8)
- Bottom up, deliberative, cross-cultural public engagement. (8)
- Praise and supporting those individuals and communities who are doing sustainable farming and land management – cultural change needed. (11)
- Recognition by society of services by land owners/managers (13)
- Landscapes valued (13)
- Landholders viewed as 'caretakers' (13)

### *5.3 Institutional*

- Institutional skepticism (2)
- Scientific opposition (resistance) to processes within NSF systems. I.e. hydraulics, engineering structures. (9)
- ("the unhelping hand of science"). (3)

- Partnerships – CMA, Landcare, corporate (9)

## 6. ECONOMIC

The economics of NSF was hotly discussed. 11 of the 13 tables discussed economic issues and knowledge gaps. Topics included:

- ***Investment frameworks*** – How should NSF be funded? What should be the balance between public and private investment? Should NSF be funded by grants, loans or both? Should funding be tied to on-farm performance measures?
- ***On-farm productivity and costs*** – What is the balance between productivity gains and the cost of implementing and managing NSF?
- ***Recompense to Peter Andrews*** – What is fair compensation for the time, resources and sacrifices Peter Andrews has put in to bring these issues to the public's attention?
- ***Taxation-*** how can the taxation system provide extra incentives to implement NSF?
- ***Ecosystem services*** – Economic incentives for clear public benefit environmental management; e.g. water quality improvement, biodiversity enhancement, carbon capture.
- ***Landuse*** – What range of land uses and enterprises is NSF applicable to?

### *6.1 Investment frameworks*

- Funding and implementation need long timeframes. (2)
- Investment framework. Public/Private. How can it happen? (1, 3, 13)
- Find method to finance. (Including government 'good $') Major benefit to the future. (3) (9)
- Financial incentives/compensation $ (11) (13)
- Loan schemes? (to demonstrate commitment). (5)
- Interest subsidies (13)
- What support can CMAs provide? (5)
- Align the economic interests of farmers with interests of banks and other financiers and build a long-term framework for funding sustainable landuse. This should be led by CMAs (10)(11)
- Economics of NSF + sustainability + who pays for cost of implementing NSF? (11)
- Measure sustainability of properties with simple tests/monitoring then good practices rewarded. (11)
- Farmers set up their own bank? (11)
- Review or set up environmental services/stewardship payments. (1) (13). Should be well funded. (13)
- Carbon sequestration stewardship incentives (8)
- Philanthropic investment (9)

### *6.2 On-farm productivity and costs*

- System drivers are productivity based. (3)
- What is the profitability of NSF? (2)
- Demonstrate economic benefit (10)

- Demonstrate return on investment (12)
- Highlight (agronomic + economic) benefits of NSF. (7)(10)(6)
- Economics – gross margins. $$ required. $$ benefit. (9)
- Production measurements (9)
- Productivity aspects (grazing, cropping, financial returns, other agricultural practices) (2)
- What are the economics of restoration of 50km of incised channels? (5)
- Farm level – can agricultural productivity match $ inputs to do NSF? (7)
- Farm productivity and profitability (10)
- Costs to farmers in production loss (initial at least) in implementing NSF? (11)
- Loss of production due to bogging in swampy meadows and ponds (11)

### *6.3 Recompense to Peter Andrews*

- How will Peter Andrews be compensated for his IP/public good/R&D? (5)

### *6.4 Taxation*

- Do these activities (NSF) qualify for Landcare tax deductions? (6)
- Provide info on tax breaks for investors in NSF (6) (13)
- Incentives for sustainable landuse practices (e.g. NSF) through tax breaks, or govt payments for providing environmental services (e.g. environmental levy?) (11)

### *6.5 Ecosystem Services*

- Ecological Markets? (7)
    - Credit for public good?
    - Indicators for environmental benefits?
    - Stewardship payments
    - Other investors other than government
    - Carbon trading? (7)
- Value of environment and biodiversity need inclusion in economics. (11)
- Interim support $ ecosystem services. (13)

### *6.6 Landuse*

- How to apply NSF to mechanised farming? (9)
- How to apply NSF to large scale farming/ag production. (9)
- Concrete and profitable landuse alternatives (11)
- Impacts on different farming enterprises (12)
- Which farm enterprises is NSF applicable to? (2)
- What are the farm management systems required for success? (2)

## 7. SYSTEMS/HOLISTIC

The previous sections pulled NSF apart. But NSF argues its is systems level approach to landscape planning and management. Overwhelmingly, discussion focused on systems issues. Every table made some comment about the systems nature of NSF or raised system level concerns;- such as downstream effects. 10 of the tables specifically referred

to the need to consider environmental, social and economic issues when doing monitoring and evaluation of NSF.

While the term NSF implies farming, the approach focuses more so on the functioning of the landscape or the watershed, than on farming per se. It is argued that the principles of NSF can be applied to any land use or combinations of land uses within a watershed.

By the same token, holistic thinking considers environmental, social and economic issues as inseparable. Does NSF stack up on these three counts?

The systems level issues raised at each table can be broken into seven subcategories as follows:

- ***Watersheds*** – What are the broader catchment effects of NSF? What is the role of water in the functioning of the landscape?
- ***Monitoring and evaluation*** – should consider environmental, economic and social issues.
- ***Whole farm/landscape planning,*** NSF should integrate with.
- ***Transferability*** – How applicable is NSF to landscapes beyond Tarwyn Park?
- ***Risks*** – need to clearly identify risks.
- ***Sustainability***
- ***Public v private costs and benefits***

One point stands alone:

- Don't get too complex (3)

### *7.1 Watersheds*

- Whole catchment > do it all (9)
- Manage for multiple outcomes. Not just water quality. (1)
- Managing downstream effects (social, environmental) Demonstrate benefits downstream. (1, 4, 12)
- Better understanding and knowledge of impacts at local and catchment scale. (1)
- Using vegetation to manage water and using our water to manage our veg + using wildlife, stock etc. (3)
- What are the most effective uses of water in a catchment? (5)
- What is the function of water in landscape? (3)
- "Valley systems" (5)

### *7.2 Monitoring and Evaluation*

- Don't restrict research/information/demonstration to just riparian zones. (7)
- Do we have a baseline for monitoring and evaluation? (8, 9)
- What ACTUAL info /data is needed – establish important indicators. (3, 4, 12)
- Adaptive management principles utilised in regional trials (13)
- Economics and ecology need to be more integrated and interconnected. Collaborative studies (11)
- Historical and anecdotal evidence gathering and consolidation. (8)

- Measurement and evaluation of agricultural systems in relation to productivity issues. (2)
- More education on grain qualities, yield, lower inputs, increased biodiversity >quantify. (4)
- Properly controlled, paired scientific studies in many catchments to cover varied environments where NSF considered on:
    - Nutrient cycling
    - OM accumulation
    - Water budgets
    - Economics public v private
    - stewardship
    - sustainability – closing systems. Include wider public, not just farmers.
    - Biodiversity/ecology (7)
- Before, during and after data, long-term studies.
    - Biophysical, social, and economic – integrated. (8)
- Verify results scientifically (10)
- Peer review group (info to CMAs, info to financial institutions) (2, 10)
- Maintain a central database. (2)
- Disseminate analysed data regularly. (2)

***7.3 Whole Farm/Landscape Planning***

- Incorporation of NSF into "whole farm planning" particularly farm economics, and integrated into catchment plan. (3)(5)(13)(6)
- How does NSF fit in with catchment planning? (6)
- When is a precautionary approach appropriate? Timing of intervention. (8)

***7.4 Transferability***

- "just because it works in one area doesn't mean it is a transferable process." (9)
- Transferability to different landscapes and whole catchments. Successes, demos. Science needed to support this.(2, 3)

***7.5 Risks***

- Acknowledge timeframes/scales for recovery short and long. (4)
- Need to look at a risk strategy for implementation of NSF. Who would do this? (6)
- Socio – ag linkages – at what cost? What profit? – marrying science and production. (4, 12)
- Socio economic impacts of increased flooding on floodplains. (4, 12)
- Especially downstream impacts of large flood events. (12)
- Good intentions with unintended environmental consequences (9)

***7.6 Sustainability***

- Focus on sustainability not productivity. (3)
- how nature works and how we can use this to improve productivity or sustainability? (3)

- Difference between aiming for "pre-Euro" and "sustainability" (8)
- More adaptive landuse (11)
- Increased biodiversity = healthy animals, farms and community (4)
- Level of export is adding to problem of sustainability. (3)

### *7.7 Public v private costs and benefits*

- Research on original model to assess/determine natural resources efficiency i.e. costs and benefits. (6)
- How do you value the public "good", the "private good" and then who pays? (4, 5, 12)
- Focus/reinforce the public-good advantages to landowners. (13)

## 8.EDUCATION, TRAINING AND KNOWLEDGE

Twelve of the thirteen tables discussed issues specifically relating education, training and knowledge sharing. There was strong agreement that NSF needed to be better packaged and targeted. The need for a multi-pronged accredited training package resonated. One table felt it was important to influence and educate politicians. Nine tables discussed the potential for the set up of well-monitored, locally relevant and multi-property demonstration sites across a wide variety of landscapes.

### *8.1 Packaging the approach and targeting the message*

- Landholder info and motivations to participate in NSF. This will inform program design. (1)
- "methods and means" (13)
- manual/forums/workshops/websites/field days at demonstration sites (9, 13)
- Don't rely on one way (3)
- Vegetation cools landscapes and attracts water. We are empowered with this knowledge. We can influence and manage. Takes away the fear. (3)
- Learn we can get more water by growing more vegetation. (3)
- Integrate NSF into River Styles approach. (6)
- Education to change public opinion on how land use is done in Australia and how it should be done better. (11)
- TV program on NSF (not just Peter Andrews) (4) (12)
- Publish this workshop for information and education (5)
- Learn from previous failures of government sponsored holistic farm management. (7)
- "Living books" – borrow someone – recognised expert. (8)
- Persuasion, recognition for best management practice (8)
- Local champions. How do we promote champions? We 'support' them. (9)
- Identify "likeminded" landholders. (9)
- Change people's mindset for long term thinking e.g. recovery short and long. (12)

### *8.2 Training and accreditation*

- Education and training programs in reading the landscape and appropriate intervention. Train trainers and stakeholders, share knowledge and train the public to read the landscape. (1)(2)(3)(7)(9)(11)(13)
- Should be different levels of accreditation. (7)
- NSF > unis, general community, training + general ? (4)
- Education program, with correct info, integrated for landowners, govt., land management, land investors. (6) (3) (8)(12)
- Education of land managers in NSF techniques. Skilling up. (1)
- CMA staff need training to implement solutions. Accredited staff. (1)
- Specific delivery to successfully implement in other areas (Extension Accreditation of trainers) (2).
- Locally relevant and delivered extension and training. (2)
- (Education and knowledge) simplistic approach – step by step (9)
- Educate communities (12)
- Practical "hands on" learning. Teach the younger generation (9)

### *8.3 Influencing the politicians*

- Persuade politicians of the importance of restoring the landscape using NSF principles. (2)
- Politicians have to attend and participate in workshops to get whole picture. (4)

### *8.4 Demonstration sites*

- Demonstration sites supported by evidence (proof in pudding). (1)(2)(3)(9)
- More farm scale demonstrations (10)
- Demonstration areas – distribute results – how adapted in other landscapes and enterprises. (2)(4)
- Establish more "farm trials" that are monitored and periodically re-analysed "scientifically measured". (5)(10)
- Relevant, worked, monitored and evaluated local examples. (8)
- Demonstration sites in different parts of the landscape (12)
- Successful trials > neighbours copy >changed management. (9)

### *8.5 Best practice*

- All depts e.g. CMA DNR produce BMP/guidelines. (4)(12)
- How do we integrate NSF into current best practice e.g. river styles, land advice. (6).
- Use industry leaders (e.g. Bega Cheese) to lever better farm management. (7)
- Add NSF to the tool box. E.g. Tim Low's 'Design the Future'. (3)
- Continuous discussion, information flow, re-assessment and dissemination of 'new knowledge. (8)
- No. 1 tool (3)

### *8.6 Institutional arrangements*

- CRC for NSF. (6)
- NSF Foundation? (9)
- Better ‘use’ of institutionalised organizations (13)