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## **WERE WE WISER BACK THEN?**

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(geriatric)

### **Introduction**

I would much rather be talking about the future than the past because I believe our profession is now on the way up, following a period in the doldrums. New professionals are being employed and the importance of the land is now being recognised once again. But that was not the topic I was given. When I first looked at the title in the draft programme I read it as “We were wiser back then” but when I looked again I saw the “Were” at the beginning and this converted it to a question. Or was it a challenge to me?

So why did I take up Simon’s challenge? I believe that the new generation of professionals should be aware of the previous national structure, the policies and how these were implemented, so you can compare them against those used today, so that in more effective systems can be developed.

I also believe it is important for you to know the extent to which the government restructuring in 1988 effected water and soil conservation, as not many people do. I believe the following information is very important. It was obtained in discussions with Dex Knowles, who has been in the center of the profession for more than 50 years and was a member of the Ministry of Works and Development’s Residual Unit, whose job it was to close the place down.

- In the water and soil movement in the 1980s there was about an even number of professionals in central government and Catchment Authorities. There was significant central government direction, policy formation, science backup, technical planning, expertise and training.
- In 1988, with the closing down of MWD and National Water and Soil Conservation Authority (NWASCA), Government changed all this. It removed about 1,000 professional and technical staff from the central government water and soil conservation movement. At the new Regional Councils, during their first 5 years, about 50% of their operational, technical and professionals were lost.

- \$30m per annum was dropped from central government grants for of soil conservation and river and flood control works.
- The central co-ordination of planning, policy, works and research was removed.
- Within the central government re organisation, no one over the age of 50 was transferred to the new organisations and so substantial institutional experience was lost.

In this brave new post-1988 world 13 new empires, the Regional Councils and one Unitary Council, were initially established to deal with their own “unique” problems – with no effective central government support, or back up, and no dedicated research arm.

SO were we wiser back then? Back then we had had 40 years experience, developing from base zero when the Act was passed in 1941. The system had evolved to one which seemed to work well. It wasn't perfect but it worked.

Looking back I see some areas where we WERE wiser then and so I intend to take up the challenge and, using five examples, show the benefits of national co-ordination and policy implementation with adequate national funding, staff training and career paths.

## **1 Research**

Effective applied research (especially operationally orientated) has been a cornerstone of the development of soil and water conservation.

Pre 1970, soil and water conservation relied on DSIR to provide much of its necessary research. This situation proved ineffective as DSIR always had other and greater priorities within the limited science budget. So during the early 1960s, Government was persuaded to bring Dr Williams (Chief, US Soil Conservation Service US Dept. Agriculture) to NZ to review and recommend on our SC& RC activities. One recommendation was the creation of an applied research arm dedicated to the needs of NWASCA and the Catchment Authorities. Three centres, soil conservation, water quality and hydrology were established and they spent a very, very productive 15 years providing the knowledge needed by the Catchment Authorities and by NWASCA. (e.g. this was when the NZLRI was undertaken, remote sensing introduced etc.)

With the revolution in 1988, when the competitive model for research was introduced and the CRIs were created, the science centres were closed and we returned to the dark ages of pre 1970 – there were always higher priorities for blue sky research set by committees in Wellington who had no idea of what was really needed “out there”. Consequently, today, most of the applied scientists have gone.

Regional Councils have endeavoured to create a unified front to lobby for research. The first effort was about 1995 when a committee of representatives from RCs co-ordinated a wish list for FORST and presented this to various CRIs. The committee did not last past the initial presentations. I believe internal politics was to blame - something to do with the committee not reporting to the Resource Managers Group.

Recently a similar group was formed (under the Resource Managers Group) and a research strategy is being prepared to present to FORST. There are assurances it will be listened to!

I will give one example of the impacts of the current policy:

**Plant Materials** - willow and poplar material is essential for erosion control on pastured Tertiary hill country. NWASCA funded a \$2m p.a. plant materials programme to ensure adequate material was available to Catchment Authorities, and that new material was being developed to guard against new invasive diseases. The introduction of CRIs saw the funding for this activity reduced and then cease. For the last decade every government organisation approached for funding has agreed the work was needed but it was not their responsibility to fund. Ten years later we are still struggling to get long term funding. Because of this, Regional Councils suffered badly when sawfly burst through a poor biosecurity surveillance at Auckland airport and devastated river berm willows in the summer dry environments throughout the North Island. In Hawke's Bay, alone, this has cost ratepayers in excess of \$8 m as hard rock protection, instead of willows, is now needed in susceptible berm areas on the Heretaunga Plains. Quite simply this cost was a result of there being no sawfly resistant materials available.

I believe it is iniquitous that the Regional Councils do not have control of the research monies available for water and soil conservation based research. Until they do the system simply will not work. We are just tinkering with a failed model.

*What is needed is a restructuring of research. The government needs to fund a research organisation specific to the needs of water and soil and sustainable land use. This needs to have long term funding with projects controlled by an appointed board (comprising regional councils, central govt and industry). Outputs would be solutions to the applied and practical needs of Councils. Scientists would be able to concentrate on their research instead of their survival.*

*The CRIs should be made commercial research companies and told to look after themselves.*

*You say this is just not possible— Yes? Just remember the major changes made in 1988 – there is no reason why this process could not be repeated.*

## **2 National Co-ordination**

The concept of each regional council being able to set its own priorities and to apply the RMA according to its own “unique” needs has great potential BUT there are such huge variations in population, physical risk and potential, wealth and capability as well as over-riding national priorities that I believe strong, central, co-ordination is a must. Remember we are half the size of NSW and have a lower population than Sydney.

Previously there was a system of central co-ordination through NWASCA and its councils. Central Government grants allowed national priorities to be implemented and

national standards to be maintained. Currently there is no such system, making the implementation of Central Government priorities difficult.

*Your challenge is to find a way to have national co-ordination without destroying the ability of regional councils to deal with issues in ways that best suit their regions.*

### **3 Maintaining Specialised Expertise**

NWASCA provided a core of nationally available specialised expertise. An example is river control design engineers. MWD had a group of river control design engineers who were available and could assist any catchment authority. This was because there was generally not enough work in any one catchment authority for a long term, full time position, nor was there a career path. This is still the case today.

*Your challenge is to create groups of specialists, sufficiently large to have a career path, who can provide assistance to Councils, obviating the need for each Council to have its own part time or short term specialist.*

*It is possible that Australasian groups could be created for particular activities as the Australian state organisations have been undergoing downsizing and restructuring akin to ours. These groups would also be available for international contracts, as this would further hone their skills. We must find ways of sharing expertise if we are to minimise costs and develop experts with NZ experience.*

### **4 Career Structures**

The development of career paths for professional groups is a subject I hold dear as, without it, our ability to pass on our experience to our successors is lost. Our expertise is generally not gained from the text books, rather it is gained in the field and so cannot be bought in when needed.

In the previous system there was promotion within our profession to a second tier level (Chief Soil Conservator – Chief Engineer) and above this there were central government co-ordination roles in Water and Soil Division, MWD.

In the current structure, there is generally a poor career path for land management advisors (and other technical people). There is no consistency of positions and responsibilities across councils. Each council has a different structure and different responsibilities for land management officers and different levels of promotion. Promotion often requires moving into a different area of work and usually into administration.

With the current university funding system being based on “bums on seats”, getting a new academically trained graduate land management officer is a thing of the past. On the job training is essential to fill in the gaps.

Previously one of NWASCA’s functions was the national co-ordination of training. Training programmes ensured new graduates were introduced to different environments

throughout the country as well as training them for specific core tasks. Qualified (certificated) staff could work anywhere in the country.

Today there is no national co-ordination. Training depends on either our professional associations or on the regional council technical groups. In land management, training has generally depended on individual councils organising courses and inviting other councils to send staff - a very ad hoc approach.

*Your challenge is to co-ordinate activities within regional councils such that:*

- *staff can be promoted within their defined professional occupation without having to shift into other occupations*
- *national training is established which ensures graduates with a range of qualifications gain quality “on the job” training to fill in the gaps*
- *inter-regional experience for staff is available*
- *groups of specialised staff, above critical mass, are formed to deal with inter-regional specialist situations*

## **5 Integrating land and Water Management**

This was an area where national co-ordination had been established and processes put in place for catchment authorities to undertake integrated land and water management planning.

The process began in the 1970s with the development of WASRMPS or Water and Soil Resource Management Plans. These plans were designed to provide the scientific backing and technical information for the allocation of water use within catchments. They became operational in 1979. Sixteen million dollars p.a. of government grant was made available, rising to \$25m by the mid 1980s for the resource investigations and surveys leading to their preparation. This was a bold new move to integrate land and water use.

The loss of central government funding and co-ordination in 1988 means different regions now address the integration of land and water use in different ways. We are only now edging back towards integrated catchment planning

Today, applied research is ad hoc and there is no co-ordinated approach, FORST and MORST do not have the capability to ensure integrated programmes are developed and so we are left with MAF trying to fill the void with its various SFF schemes.

*What is needed is an understanding of all the issues associated with integrating water and land use and a structure set in place to provide this knowledge base and the range of techniques which can be used nationally to achieve integrated use. This would include a mix of pure and applied research, development of efficient management techniques and policies. I believe the country is too small and the issues are too important to be decided on a local or region by region basis alone. National direction is needed.*

## **Implementation**

My view is that to achieve what is needed there needs to be some form of national organisation, with legislative and financial underpinning, which is responsible for a nationally consistent system of integrated and sustainable land and water management. It must be:

- responsible to central government
- responsible for regional councils
- staffed by senior people with field experience
- in control of setting the research programme and its funding
- responsible for technical training
- responsible for core groups of expertise in specific fields e.g. river flood design, economics and integrated planning.

The organisation would be run by a board appointed by Government from relevant departments, industry (including the agri industry), and regional government.

## **Summary**

In each of the five areas I have discussed you will have seen my assessment of what is needed to improve the current system. So were we wiser back then? In most areas I believe we were.

Each year intensified land management systems increase the pressures on the physical capabilities of the soil, and test their physical and chemical limits. New agricultural systems are imposed with little regard to the soils' capability to sustain them. Yet nowhere do we see any co-ordinated programmes to understand what the physical limits of these soils are!

To improve the current system, so we **can** be wiser than we were back then, we need nationally focussed research programmes. This is fundamental to the survival of our soils and the success of our society, and is fundamental to growing our wisdom.

*Your challenge is to develop a national system that allows our soil and water resources to be used within their physical limits, otherwise our society will not be sustainable..*

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