Behind the scenes
1: Initial network structure

e-Bulletin #8

In this issue I provide an update of what is going on behind the scenes throughout August, make sense of the networks that were created during the second modelling workshop, and outline what will happen at our third workshop in September.

In this bulletin:
- Constructing the initial network structure
- *Third modelling workshop:* Tuesday 17th September

Third modelling workshop

The third modelling workshop in Hebden Bridge will take place next Tuesday 17th September at Hebden Bridge Town Hall. In this workshop we will:
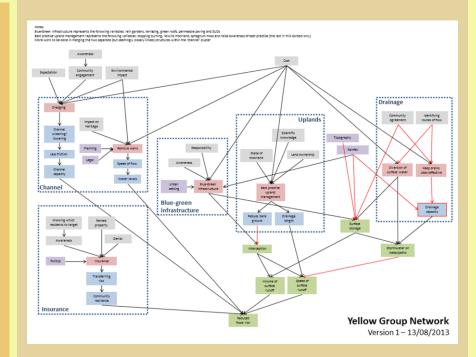
- **Define states for each variable:**
  For the network to work as a Bayesian network, each variable must have a set of discrete (distinct) states that describe its status at a given time.

- **Identify sources of data for stakeholders to collate:**
  By looking at the links in our network we can start to compile a list of the data that would be desirable to collate in order to quantify those cause and effect relationships.

I look forward to seeing many of you there. Please RSVP if you have not yet done so.

During August I have been compiling the initial network structure to represent each group's efforts at the second modelling workshop. These will act as the skeletons which we will develop further in later workshops, by adding states for each of the variables, by quantifying the links between them (using data, expert opinion, local knowledge, etc…) and through the testing of different interventions. One such network is shown below:

Yellow Group Network
Version 1 – 13/08/2013

I have tried to capture the network exactly as each group designed it in the workshop, but we will spend a fair amount of time in the third workshop making sure we are all happy with the relationships that we have set up, and adding any we missed the first time around. The next step is to add states to each variable. These are discrete states that the variable can be in. For example the variable [grazing] may have states of high, medium, low, or more simply overgrazed or not overgrazed. We can quantify these states as well – for example 'high' might mean 'over 100 sheep per hectare'. Through careful design of these states we can see which of our interventions could be best at moving them out of their current state into one which we deem to be more desirable.

I welcome any comments on either of the networks via e-mail before the third workshop. Have a good look through and see if you think anything has been missed out or misrepresented, and let me know.

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