

# Problem solving for sustainable development

## **Resource sheet 6 (for students)**

### **Creative problem-solving models**

#### **Step 1 - Fact finding**

List the facts that are known about the situation.

List the information that needs to be known in order to develop a solution.

Discuss possible sources for the unknown information.

#### **Step 2 - Problem finding**

Identify the underlying problem in the situation.

Analyse the information and identify a problem which, if solved, would provide a solution to the major issues.

#### **Step 3 - Idea finding**

List as many ideas as you can for solving the problem.

Use the rules of brainstorming and defer judgment or evaluation.

Focus on quantity rather than quality of ideas.

#### **Step 4 - Solution finding**

Choose criteria for evaluating the ideas.

Apply these criteria to the ideas to see which ones could be combined or modified to make them more useful.

#### **Step 5 - Acceptance finding**

Develop a plan for implementing the chosen solution.

Consider all audiences who must accept the solution, plan for answering their questions and decide how to convince them that the solution is appropriate.

(This problem solving model is from the handbook of the video *Living in a catchment*, Smart & Martin 1994).

Planning to take action in your area may seem like a huge task. However, breaking down your action into stages will enable you to think about all the processes you will need to complete. Under the headings that follow, write down how, at this stage, you may complete each section of the action process. You may only have a few ideas right now and be able to fill out more down the track.

1. Identify the problem
2. How to investigate the problem
3. How to evaluate the facts/data
4. What actions could we take?
5. Predict outcomes - if we do that, what then?
6. Select best action(s)
7. Implement action(s)
8. Evaluate actions - how did it go?