# Causal Loop Diagram (CLD)

## Exercise 2

Full resource, see: <https://www.ncrm.ac.uk/resources/online/all/?id=20845>

**Steps to build your own CLD:**

1. Choose a topic that is of interest to you. Brainstorm and note down all the variables that you think are related to your topic of choice.
2. Decide what are the key themes in your topic if there are more than one. Organising framework can be used for this. For instance, if the topic is sustainability, then environmental, social, and economic aspects become key theme areas. Once you have the themes, group the variables under the suitable themes. Each theme can be represented by different colour for ease of understanding.
3. Think about your research question, or the problem of interest. This gives context to the story you are building through CLD. Based on your question/problem, set the boundary of the CLD. Remove the variables that are out of context (not relevant).
4. Relate your research questions with the themes and each variable. Research further to see if any information is lacking, and understand the notations used in a CLD.
5. Find the causal or associative relations between each of the variables, and watch the story unfold!   
   If the project is scientific research, it is a good practice to make a list of literature that supports these relations, helping to back up your narration. Sometimes a CLD can be used as a way of displaying a literature review with specific references to literature (e.g. [5, 16, 25]) being associated with a flow arrow.
6. Start drawing! Start small; first focus on the core of your CLD’s main variables and flows. Then build on it with other variables, their causal links, and relations. You can also cite the literature below/above the arrow. Keep the placement of signs or letters uniform throughout. Once the relations are established, find the feedback loops, and mark them.   
   Remember, it is an iterative process, which is supposed to be messy. With each iteration, the CLD gets better and so does your story!
7. It is often the case that you will want to stop and re-draw your CLD. This is normal as it evolves. The very process of drawing the CLD helps you to think about the system and will inevitably help you identify missing variables and flows between them.

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