Development Wheel (DEW)

A SHORT AND PRACTICAL INTRODUCTION TO USING ACTOR ORIENTED TOOLS¹.

The tools are useful for:
- **Analysis** of a given institution (e.g. organisation or enterprise sector) in terms of strong and weak linkages between its ‘actors’.
- **planning**: visual presentation of critical links which should be supported or developed.
- **monitoring and evaluation**: visualising how interventions (or time) have impacted on linkages.

1. **Actor Time Line** (see fig 1)
This is a good starting point and can help you identify who the key actors are, what their role is and has been. The line also provides a feeling for the dynamics of an institution and where it is heading.

**Actor Linkage Map** (see figure 2)
These maps show the links between a group of actors. Simple maps can be drawn on a piece of paper or flip chart while holding discussions with key actors about how they interact with others. As with all these exercises this can be done with a group or with individuals. You might use the map to summarise and analyse findings after interviewing a number of actors.

**Actor Linkage Matrix** (see figure 3)
The matrix complements the map. It basically plots the same information but has the advantage of:
- allowing analysis of more complex systems with more actors (maps get too messy)
- ensuring all possible links are considered
- allowing links to be given a value

The matrices and maps help to visualise existing strengths and opportunities in terms of strong relationships, flows of information and collaboration which are being used, or which have potential to enhance the system being looked at.

¹ For a detailed discussion on the theoretical background and examples of application of these tools please see:-
Biggs and Matsaert 1999 *An Actor Oriented approach for Strengthening research and development capabilities in natural resource systems*. (Public Administration and Development 19 pp 231 – 262)
And
Biggs and Matsaert (forthcoming) *Strengthening Poverty Reduction Programmes Using An Actor Oriented Approach: Examples from Natural Resources Innovation Systems*
They encourage the users to identify effective, and often innovative interventions. For example the matrix in figure 3 suggests a number of different approaches that might be taken to strengthen chardwellers access to information e.g building on strong existing relations between dealers and chardwellers to provide embedded services, linking chardwellers to ‘researcher farmers’, improving the relevance of media output etc. One or other of these approaches may be more feasible at a particular time or given particular resources.

**Figure 1: Actor Time Line. Chilli production in the chars.** (key actors in bold)
Figure 2: Actor Linkage Map: Information Flows in Char based Chilli Production (Simplified example.)

Thickness of arrow can be used to indicate the strength of the flow of information between actors.

Figure three shows the same information in matrix form.

Figure 3. Actor Linkage Matrix Information Flows in Char based Chilli Production (Simplified example.)

<table>
<thead>
<tr>
<th>Actors</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Char dwellers</td>
<td>Farmers doing OFTs</td>
<td>Researchers</td>
<td>Extension staff</td>
<td>Media</td>
<td>Input suppliers</td>
</tr>
<tr>
<td>1 Chardwellers</td>
<td></td>
<td></td>
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<td>2 Farmers doing OFTs</td>
<td></td>
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<tr>
<td>3 Researchers</td>
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<td>4 Extension staff</td>
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<td>5 Media</td>
<td></td>
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<td>6 Input suppliers</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7 Dealers</td>
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</tbody>
</table>
How to create a linkage matrix

The actor linkage matrix lists key actors (same as for map) along the vertical and horizontal axis. It is easily set up in a spreadsheet programme like Excel. Each cell in the matrix represents the flow of information from the actor on the vertical axis to the actor on the horizontal. For example, cell 1D. represents the flow of information from chardwellers to extension staff (in the map this is shown as an arrow). Row 1 represents all the information flowing from chardwellers to others. Column A shows all the information coming from other actors to chardwellers.

In the map, thickness of arrows can indicate the strength of a linkage. In the matrix you can indicate this through using symbols e.g. ticks in this example, or shading. Each cell in the matrix can be linked to a piece of text describing the linkage and explaining the ranking given.

As for the map, the matrix can be developed through individual interviews or group discussions with actors.

Determinants Diagram (see figure 3)

This tool is similar to the Participatory Rural Appraisal (PRA) problem tree. It is intended as a group discussion (or individual thinking) tool to analyse the nature of a particular linkage.

The starting point is a cell of the actor linkage matrix or a linkage on the map. Normally this would be one that is particularly significant (and might need to be strengthened, weakened or learnt from). The diagram maps weakening and strengthening forces on the linkage and helps a group to identify possible areas of intervention.

This tool can be used in a brainstorming exercise. Obviously some ‘areas for intervention’ (what to do) will be more possible to implement than others. The exercise helps open up a discussion about the feasibility of different actions within the current social and political context. It's a useful tool for building an action plan from the analysis of a particular situation. For this reason it is most usefully carried out with the key actors who would be involved in any future “implementation” of suggested actions.

Please Contact us:-
We hope you find this introduction useful. If you have any feedback please contact us c/o

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Or Development Wheel at dewhc@bdonline.com
For more information on the use of actor oriented tools in our work, please visit our website www.developmentwheel.org

Figure 4. Determinants Diagram (simplified)
Exploring the link between extension and chardwellers (currently weak).

**What to do?**

**Strengthening factors**

- BS to work with the many existing groups on the chars e.g NGO groups, youth groups, savings
- New extension plan to form farmer groups to extend outreach
- New Upazila level extension coordination committee includes dealers.

**Weakening factors**

- BS doesn’t go to chars
- Chars are remote and it takes too long to get there

**What to do?**

- BS can often be found in the dealers’ shop
- DAE to use dealers to disseminate new technologies, and as source of feedback.
- DAE should employ a special BS to cover chars only
- Chardwellers and BS should arrange a regular venue to meet on the mainland e.g. in dealer’s shop
- DAE should train a chardweller to be a ‘para’ extension worker (maybe man and woman)
- Employ female extension worker.

**Chardweller/Extension Block supervisor (BS) Linkage**