Supplementary material
Session 1

Prisoner Dilemma (or X-Y game)

The prisoner dilemma is an exercise that will show the participants that cooperation is a choice.

You have a sheet with instructions and a scoring system that is handed out to all participants,

In addition you will draw a table on the flipchart.

Both are provided in the material.

The instructions for the participants are purposely vague!!!

They will not understand the things written there immediately.

Do not explain anything to them!!! Tell them that the only rule that is not written is that they can not ask questions.

The procedure is as follows:

- Make small notes saying ‘A’, ‘B’, ‘C’ and ‘D’, to a total that equals the number of participants.
- Give these notes AT RANDOM to the participants. (You should not have more than 8 or 9 persons in each group, although there is no formal reason why not more. The problem is that a large group tends to split up in an active group and a not so active group.)
- Ask all As Bs Cs and Ds to sit together in 4 corners of the room where you are working.
- Put the flipchart with the table in such a way that all could see it
- Read out the instructions that are written. NOTHING MORE!!!
- Tell them that you will read the instructions once, and tell them also that this is an exercise, and part of the exercise is that you will not answer any questions.
- Tell them to start working, and that the first decision has to be taken in 3 minutes
- They should only decide on the first round now
- After 3 minutes you collect the decision. Mark a big ‘A’, ‘B’, ‘C’ or ‘D’ on the paper that you collect. This will be the form that you will collect each time
- You read the results loudly, and write them on the flipchart.
- You also indicate the resulting points and you casually mention the total of points so far (the most right column)
- Quickly hand back the forms, and tell them to make a next decision. Make sure there is no discussion between the four groups.
- After 2 or 3 minutes you collect the papers. If they are not yet finished, you pressurise them to choose
• Again read out the results. Count the points, and total them immediately with the points of the first round. Give the total of all points in the right column, with a little more accent here. Make it a bit of a show.
• By now the group starts to understand the counting mechanism, and they tend to become a little bit more noisy. Some start to laugh and look as if they are cooking up something. They are.
• Keep up the pace, and announce just before the 5th round that this time all points will be multiplied by 3.
• Collect scoring sheets, total them, and announce that each group has to select 1 representative who will start talking to each other about the way forward. Give them a few minutes to talk (not more than 3 or 4). This is the first time the groups are allowed to talk to each other!! In the negotiations some will try to get everybody choosing Y (this is the most profitable strategy for the whole group, but it will only work if all chose it), some will suggest to take turns in choosing X, to compensate for the differences that have been created in the first 5 rounds (so far only 28 of the 100 points that could be earned have been passed. If they would cooperate playing Y from here, they could still earn 72 points collectively. This has never happened.
• The negotiators return to their groups, and the groups are expected to come with a choice within 2 or 3 minutes (keep up the pace)
• Play a bit with the way you announce the choices, and stress more and more the last column, without becoming too obvious.
• Before round 8 you announce that the points in this round are 5-fold.
• After round 8 there is again an obligatory talk between the 4 groups. You may have problems getting 1 or 2 groups to the table, because there has been some cheating. Be firm and tell them that the talk is obligatory.
• Let them talk for 3-4 minutes
• Have round 9
• Announce that in round 10, all points will be multiplied by 10!!
• Another round of negotiations (they may need as much as 5 minutes. Give them that.)
• Last round............
During the last negotiations and round all kinds of things can happen. The negotiators can go as far as demanding that everybody brings his form to fill in their choice there.
You can let them, or you can force them to go back to their groups first.

By now the room is cooking.

You can start the evaluation by asking how everybody is feeling.

If they succeeded in selecting Y in all 4 groups, there is usually a quite victorious feeling with the whole group. If 1 or 2 of them cheated, these groups will probably have a mixed feeling. They had the points, but at the same time they lost the trust of the others, and won at their expense.

You will now understand why the groups should be random. If you have homogenous groups consisting only out of 'village A' or 'irrigation-department' their position during the rest of the workshop might become a bit problematic.

Just ask people for they observations, and ask them how it relates to the issues they are working with.
Also share the amazement that you can get so emotional about choosing between X and Y. If you want you can use the explaining text to give some more insights, and even give it as a handout.
Scoring form

Rules

10 rounds

- A round consists of choosing between X and Y by each of the four teams.
- The result of each round is a certain combination of Xes and Y’s. From the scoring form you can gather how many points you will win or loose each time.
- In the 5th, 8th and 10th negotiations are obligatory. Each team should delegate 1 negotiator for this.
- You can follow your score with the scoring form.
- Your result in round 5, 8 and 10 is multiplied with 3, 5 and 10 respectively.
- Outside the negotiations, no consultation between the groups is allowed.
- Each team should seek to reach internal agreement each round
- Make sure that the other 3 teams do not know your choice before the games master asks for it

GET AS MANY POINTS AS POSSIBLE

<table>
<thead>
<tr>
<th>round</th>
<th>Choice</th>
<th>Win</th>
<th>lose</th>
<th>score</th>
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<tbody>
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  Negotiation round

| 6     |        |     |      |       |
| 7     |        |     |      |       |
| 8     |        |     | x5   |       |

  Negotiation round

| 9     |        |     |      |       |

  Negotiation round

| 10    |        |     |      | x10   |

Scoring system

<table>
<thead>
<tr>
<th>4 Xes loose 1 point</th>
<th>1 Y loose 3 points</th>
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<tbody>
<tr>
<td>3 Xes win 1 point</td>
<td>2 Y’s loose 2 points</td>
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<td>2 Xes win 2 points</td>
<td>3 Y’s loose 1 point</td>
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<td>1 X win 3 points</td>
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Scoring-form on the flip-chart:

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<tr>
<th>round</th>
<th>A choice</th>
<th>points</th>
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Teachers note:

The X-Y game shows the possibility and the difficulty of cooperation.

Every one may try the Y strategy but if not supported by others the penalty is severe – in the beginning of the game you often see that teams try but then realize the near impossibility of cooperation on individual basis

Only after the negotiation rounds the possibility of a uniform Y strategy becomes realistic. At the same time cheating becomes a possibility too.

An important question to ask is: if the game is played repeatedly – will the possibility of cooperation increase? The answer is yes, as cheating becomes more painful.

There is a strong link with participatory planning, which is:
- the importance of interacting to come to joint strategies
- the feasibility of cooperation improves if the game is played several times.

On “THE PRISONERS DILEMMA”

According to the story, a prosecutor has insufficient evidence to bring two men, who are suspected of armed robbery, to court. He has both men brought to him, and tells them that they cannot be tried for the robbery, as long as they do not make a confession. If neither of them makes a confession, he says, he can only charge them with illegal possession of fire-arms – and that has a maximum penalty of six months in jail. But if they both confess, he will make sure that they are convicted to the minimum sentence for armed robbery, 2 years in prison. If however one of them confesses, and the other does not, he will call on the first as a witness and let him go free. The other will then be sentenced to the maximum penalty, 20 years in prison. He does not leave time for the men to talk, and has them put away in separate cells, preventing any communication..........

The PRISONERS DILEMMA is an exercise in cooperation and in dealing with mutual dependence.

The exercise makes clear, in an abstract form, what “cooperating out of principle” means – what are the gains, and what is the price you pay?

The Y-STRATEGY is a COOPERATION STRATEGY
- It results in the highest amount of points (ideally +100 for the total and +25 for each team) and it consolidates the relations between the parties.

But the Y-STRATEGY has some objections:
- it is a vulnerable strategy; as soon as one of the parties leaves the cooperation, it will immediately have high profits, and the others will lose. It draws heavily on trust, solidarity and agreements (with or without sanctions).
- It is slow; the profit you make is in balance with the profit others are making. Quick or remarkable successes can only be achieved at the expense of the successes of others.
It is boring; each urge for experimenting and competition has to be adjusted to the slow pace of the collective build up of scores

The X-STRATEGY is the EVERYONE FOR HIMSELF STRATEGY
- it can result in a lot of points for one group (ideally 75 points), but only if the three other groups are losing (-25 points) and it threatens the relations between the parties.

And the X-STRATEGY has some remarkable advantages:
- it is a defensive, relatively safe strategy: If you win, others lose. But if you lose, others are losing too. You can never be (the only one to be) last.
- It shows quick results: you can build up a quick, surprising head start on the others
- It has excitement, competition and tension; experimenting, cleverness and competition can be rewarding.

The Y_STRATEGY is essentially a “I win if you win” strategy
The X-STRATEGY is essentially a “I win if you loose” strategy

Cooperation out of principle, shown here as the Y-STRATEGY, is only possible, and effective, if the participants are thinking and acting from a basic attitude aimed at cooperation.

This basic attitude has been described by Robert Axelrod * in 4 principles:

1. don’t be too smart; if you try to out-maneuvre the others with smart ideas, with information and disinformation, you will, because of the lack of communication, ruin the fragile mutual trust.
2. don’t be jealous; do not begrudge the other parties differences in scores. Attempts to equalise are often not possible, they delay the cooperation, and they create new inequalities.
3. be forgiving; a strategy for cooperation does not look back. Certainly not in anger. Retaliation, making parties pay for using the X-STRATEGY in the past, postpones the cooperation, and will destroy solidarity at the smallest doubt
4. be reciprocal; sacrificing your own scores, by persisting in choosing Y when others choose X, proves to be very ineffective: it rewards the ‘X-behaviour’ of others and it leads to ever increasing barriers of equalising and retaliation. Only ‘reciprocal choices’ (X for X and Y for Y) are able to turn the ‘every man for himself’ strategy into a loosing strategy. Moral pressure that is proud and non-communicating, will fail.

* Robert Axelrod: The Evolution of Cooperation