In the world of monitoring and evaluation (M&E) three approaches can be identified: result-oriented, constructivist and reflexive (see table p.32). Every approach includes principles, methods and tools that can be used for projects that have the ambition to contribute to (system) innovation. But they differ widely in their vision on reality, the on-going processes and their results and how to support, manage or adjust these processes. Deciding which method is the best depends heavily on the nature of the project, its context, and the monitoring and evaluation objectives. In practice, it may be desirable to use a selection of methods from the different approaches in order to combine their strong points.

**>> Result-oriented approach**

The emphasis on result-oriented monitoring and evaluation lies in “measuring”: to what degree have the original project objectives and subsequent interventions been achieved? In other words: what
are the results? (The “what” question; Zall Kusek and Rist, 2004). Result-oriented approaches are often used to provide an account-
ability trail for the investment in the project, whenever financiers and their backers have to or want to see what has been done with
their money. Planning methods which match this type of M&E are
LogFrames or Logic Charts or the more flexible Theory of Change (Davies, 2002).

These methods are based on assumptions and expectations of
causality and linearity: ‘If we do this in the project, then this will
happen and this or that change will take place; to put it another
way, the project can plan for change and then measure it.’ The
strength of result-oriented methods lies in strategy and planning.
They force project managers and participants to consider carefully
what they want their contribution to be and how they think they
should act to achieve this. In other words, they support the develop-
ment or explication of the intervention strategy. By developing
an intervention strategy the project managers and participants can
assess what works and what does not work at specific times.
If necessary, the strategy can be modified along the way. As well
as that, the result-oriented methods can be useful in monitoring
the progress of the projects, the so-called operational process.

Result-oriented methods are powerful instruments but they have
their limitations in (system) innovation processes. An example
of a well known intervention strategy in system innovation is the
stimulation of unforeseen contacts in order to trigger surprising
new insights and initiatives. During the implementation of a result-
oriented M&E, project managers and the participants will want
answers to a number of questions. In the short term, to what
degree they are successful in stimulating unforeseen contacts (out-
put). Further in the process, they will want to know to what degree
these contacts have lead to surprising new initiatives (outcome).
In the long term, they will want to gain an insight into the degree to
which the initiatives have contributed to, for example, a more sus-
tainable agricultural sector (impact). The strength of result-oriented
methods lies in asking these pointed questions, but they can often
only provide part of the answer. Collective learning and innovation
processes do not evolve in a linear way but are unpredictable. As
a consequence, cause and effect relations are not easily traceable.
Result-oriented methods do not address the value of collective
learning and the development of a shared understanding of the
project and/or its context.

>> Constructivist approach

The constructivist M&E approach assumes that people are the motor
behind the development of novelties and societal change processes.
They achieve this through interaction and negotiation (Guba and
Lincoln, 1989). Mutual understanding and exchange of experiences
support collective learning, improvement and change. Constructivist
methods focus heavily on monitoring and evaluation of the progress
of the collective learning process. They do not so much define (the
“what” question) but highlight more how successful collective learning
processes are initiated and prolonged (the “how” question).

A central activity is sharing experiences from different perspectives
by different people. An analysis of the most important issues is made
on the basis of individual stories and together with the story-tellers,
the group reflects on possible further steps. Related M&E methods
are Learning Histories (Kleiner and Roth, 1997), see Networks
Learning from Learning Histories, p.34, and Responsive Evaluation
(Abma and Widdershoven, 2005). A method like Most Significant
Change (Davies and Dart, 2005) also falls under this approach.

The strength of constructivist methods is that they stimulate the
exchange of perspectives. They ensure a good insight into how
processes evolve. These insights are of value for the learning
process itself and the relationships within the project or network

<table>
<thead>
<tr>
<th>Methods</th>
<th>Result-oriented approach</th>
<th>Constructivist approach</th>
<th>Reflexive approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory of Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td>Accountability and managing</td>
<td>Learning from each other and modifying processes Agenda setting</td>
<td>Learning, change of practices and their institutional setting</td>
</tr>
<tr>
<td>Paradigm</td>
<td>Reality exists and can be measured/defined objectively</td>
<td>Reality is constructed through interaction and negotiation.</td>
<td>Reality has to be reconstructed/ a new reality has to be developed</td>
</tr>
<tr>
<td>Focus</td>
<td>Results/predefined objectives or procedures</td>
<td>Meanings and values, based on negotiations</td>
<td>Calling existing practices and institutional settings into question</td>
</tr>
</tbody>
</table>

Table. Summary of the differences in objective, paradigm and goals between the three M&E approaches.
can be strengthened using the results of monitoring and evaluation. In particular, constructivist methods can help collective learning when the outcomes of an intervention are unpredictable, the process of change is intangible involving multiple pathways and interrelated factors, and the actors involved have different perspectives on the central problems and their causes, a common phenomenon in innovation projects. This type of learning can increase support for the project. One weakness of this method is that the insights are not easily transferable or exchangeable with the people who have not taken part in the M&E process. One trap can be that there is so much focus on the exchange of perspectives that the intention of a project to contribute to actual change is forgotten.

>> Reflexive approach

We call the most recent approach in M&E-country reflexive (Voss et al., 2006). Reflexive methods focus on both a collective learning process (in groups of actors and in networks) as well as on the results in terms of learning and institutional change. The reflexive approach has a constructivist basis but goes further. Project or network participants not only exchange their personal viewpoints and motives but they also debate their presumptions and underlying values and norms and the institutional context in which they operate. In this way, they can arrive at diverse agreements about possible joint actions. Reflexive monitoring assumes that system innovation can only take place if the institutions (laws, regulations, culture, etc.) which have until now perpetuated the current (non-sustainable) practices change as well (Mierlo, 2010a). The leading question in reflexive monitoring is whether the activities in an innovation project stimulate precisely those learning processes that can lead to a change in current practices of interdependent parties.

The strength of this approach is that it is based on thinking in terms of systems; current practices are questioned and the aim is to change a complete system. For this reason, the approach is promising for projects where the ambition is to contribute to system innovation. Because reflexive monitoring has not yet been implemented in practice very often, there are few people with knowledge and experience of it. It requires sincere commitment and intensive effort; self-monitoring is not or hardly possible. Related methods are the Interactive Learning Approach (Regeer et al., 2009), Reflexive Process Monitoring and Reflexive Monitoring in Action. Reflexive Monitoring in Action (RMA) has mainly been conducted in the context of agriculture in the Netherlands; a few examples of RMA experience in practice can be found in Mierlo et al., 2010a and Mierlo et al., 2010b.

For more information: Barbara van Mierlo e barbara.vanmierlo@wur.nl, t +31 317 483258