

Starting the PLAR-IRM curriculum

After identifying the site for the planned intervention, i.e. the inland-valley lowland (Reference 1), the first contact is made with the farmers who work at the chosen site in order to set a date and time for an introductory meeting. This introductory meeting is very important, because Participatory Learning and Action Research for Integrated Rice Management (PLAR-IRM) can only be effective if farmers fully and actively take part in the PLAR-IRM sessions that will take place during the entire rice-growing season. For most participants, PLAR-IRM is a new approach and farmers are generally not experienced in this type of approach to learning. To demonstrate the importance of this first session, it is critical that the PLAR-IRM team leaders participate.

Before presenting the principles and objectives of the curriculum, it is useful to examine, as a joint exercise, what farmers perceive as good rice-management practices and what conditions are required to be able to follow these practices. The first session will also enable discussion on what areas of rice management practices farmers intend to learn.



Learning objectives

At the end of this module, farmers will be able to:

- Identify ‘good’ management practices and rank these according to their importance.
- Identify the conditions required to put these ‘good’ management practices in place.
- Acknowledge that there are various forms of rice management and that these can change over time.
- List their training needs.
- Explain the principles and objectives of the PLAR-IRM approach.
- Express their interest in participating in PLAR-IRM and register to take part in the PLAR-IRM sessions.
- Agree on the PLAR-IRM curriculum outline and agenda.

- ❶ List good rice-management practices and factors enabling good management.
- ❷ Identify differences in rice management practices between farmers and changes that have taken place over time.
- ❸ List farmers’ training needs.
- ❹ Introduce PLAR-IRM.
- ❺ Write down the names of the farmers who wish to participate.
- ❻ Ask farmers to choose a group leader, and identify a meeting place and time for the PLAR-IRM sessions.

Module 1

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Procedure

1. Farmers who work at the potential PLAR-IRM site should agree on the date and place of the first session. Note that this first step is taken well before the session itself and that it is important to confirm this agreement at least once before the session takes place.
2. Village officials, farmers and the PLAR-IRM team members introduce themselves to each other.
3. One of the team members explains the objectives of the meeting and gives an outline for the session.
4. A large sheet of strong packing paper is spread out and divided into two columns with the headings: (1) ‘good rice-management practices,’ and (2) ‘factors that enable or prevent the use of good rice-management practices.’
5. After some discussion, farmers are invited to list ‘good’ management practices and then list the factors that allow or prevent good management.¹ A field visit is highly recommended to stimulate the debate. The facilitator or a literate farmer records the main points cited, on the paper.
6. The facilitator invites farmers to list the various rice management practices they undertake and stimulates the debate on the ‘whys’ and ‘wherefores’ of differences between farmers.
7. Then, the debate focuses on changes and improvements that have taken place over time, and what farmers think about future developments.
8. A second large sheet of strong packing paper is displayed with the heading, ‘What we want to learn.’
9. Farmers are invited to state what they want to learn and all suggestions are written down.



1. If the group of farmers is large, it would be convenient to form subgroups and then to combine the results of discussions during the plenary sessions.

10. The facilitator introduces the PLAR-IRM principles, objectives and approach, and explains what farmers can expect from the curriculum.
11. The facilitator asks questions to find out if farmers have grasped the principles of participatory learning and if they are ready to take an active part in the sessions during the whole rice-growing season.
12. The facilitator then discusses the PLAR-IRM curriculum with the farmers, and the PLAR-IRM team and facilitators agree on an agenda for the growing season and the frequency of meetings during the rice season (it is better to agree on a weekly meeting program or every other week and set the day and time of meetings in advance). The facilitator makes sure that the scheduling of the PLAR-IRM sessions will not conflict with that of other meetings.
13. The names of volunteer farmers willing to participate in the PLAR-IRM curriculum during the rice-growing season are written down.
14. Farmers are expected to choose a group leader and an assistant leader who will be made known during the subsequent session. The facilitator explains that the leader will receive a notebook to write down the names of the participating farmers and take attendance at the various PLAR-IRM sessions. The facilitator also explains that farmers will get a certificate at the end of the PLAR-IRM program if they attend most of the sessions.
15. The facilitator asks farmers to give a name to the group and identify a meeting place. This can be a classroom, an unused store or in the shade of a tree, etc. This meeting and learning place could be called the 'PLAR-IRM Center.'
16. The facilitator ends the session with a summary of the substance of the module.



Time required

- Three hours



Materials required

- Two large sheets of strong packing paper.
- Markers.
- Adhesive (Scotch) tape.

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Box 1

A field visit with farmers was conducted before starting the PLAR-IRM curriculum in order to appraise farmer practices. The farmers from Lokakpli and the PLAR team visited three rice fields.

The first field was at about two weeks from harvest (maturity phase). The rice crop (variety Bouaké 189) was doing very well and had a completely closed canopy cover. We estimated yield at 6–7 t/ha. There was still water in the field. The discussion focused on the most appropriate time to drain the field before harvesting, and timing of fertilizer application. Farmers had difficulties in converting a per-hectare dose of fertilizer to a per-field dose. Most of them seemed unaware of the importance of the main plant nutrients (nitrogen, N; phosphorus, P; potassium, K) and the composition of the main mineral fertilizers used in terms of N, P and K.

The second field was also close to harvest, but it did not look as good as the first field. Rice tillering in the vegetative phase had been poor and we saw a lot of empty spaces between rice hills. The canopy cover was, therefore, far from closed. At the field edges, we noted spots of iron toxicity. A lively discussion followed on the causes of the poor plant stand. Farmers identified the following factors: disease pressure, poor soil quality, poor drainage conditions, late transplanting, use of old seedlings at transplanting, and problems with land-leveling. In the end, farmers more or less agreed that this field had two major problems: iron toxicity, which originates from the upland areas surrounding the lowlands, and a soil texture that was thought to be too sandy. Farmers seemed to be well aware of differences in soil texture. They said that land-leveling works during the construction of the irrigation scheme had caused a lot of damage to soil quality.

In the third field, rice seedlings had just been transplanted. The soil was sandy, but contained a lot of organic matter. Rice straw had been incorporated using a power tiller. Farmers said that owners of power-tillers do not like to rent out their machines for straw incorporation. One of the farmers found a solution to this problem: he is decomposing the straw before incorporating it. The farmer showed us that he produces his compost near his threshing area.

Following the field visit, farmers discussed factors determining yield formation: they mentioned land-leveling and land preparation in general, soil quality, time of transplanting, age of seedlings at transplanting, weed pressure, problems with pests and diseases, and high costs of mineral fertilizers. After a lively discussion, farmers agreed that to raise rice productivity in a sustainable manner, an integrated rice management approach is needed that embraces all aspects of the rice cropping calendar from land preparation to harvest and post-harvest practices.