

Why this manual?

The inland-valley areas in Sub-Saharan Africa are very important assets for the development and intensification of agricultural production. Their surface area has been estimated at 85,000,000 ha, i.e. 7% of the total arable cropland, of which only 10–15% is actually used for agriculture. Most of the inland valleys are situated in the inter-tropical zone, where rainfall is more than 700 mm per year. The objective of the two manuals (facilitator's and technical) is to contribute to a better and wider use of this significant resource to help meet the challenge of food security in Sub-Saharan African in a sustainable way.

Although the term 'inland valley' always refers to wetlands, not all wetlands are inland valleys. In particular, the term 'inland valley' excludes coastal depressions, coastal river deltas, lagoons and mangroves; it also excludes inland depressions, such as wide alluvial lowland valleys, interior deltas, lake areas, swamps, and deep-water rice zones.

Inland valleys are characterized by their upstream position in a drainage network. The catchment area captures the water of the whole hydrologic network of an inland valley, from the hillcrest (upland) through the hydromorphic zone (with shallow groundwater table) to the inland-valley bottom.

This manual focuses on integrated rice management in inland-valley lowlands in the lower part of the watershed. Here, during the rainy season, rainfall run-off accumulates and the water table is recharged. Because of these wet conditions, inland valleys are used primarily for water supply and the maintenance of perennial pasture. Rice production makes valuable use of this water resource. The existence of shallow groundwater in some inland valleys also allows arboriculture and vegetable production.

The inland valleys of Sub-Saharan Africa are extremely diverse and complex; therefore, standard recommendations are rendered of little use to farmers. The objective of the *Facilitator's Manual* is to stimulate discussions within farmer communities, and with other actors in agriculture, such as extension agents and fieldworkers. We hope that that manual will help build bridges between local and external knowledge. This *Technical Manual*, forming a set with the *Facilitator's Manual*, offers field agents additional information and baskets of options to improve rice production and to achieve productive, profitable and sustainable rice management. This *Technical Manual* contains technical references on the options that are available to inland-valley farmers. It was developed with the collaborative work of Ivorian farmers who cultivate rice in inland valleys with full water control and partial water control.

The sustainable management of inland valleys involves many factors. It requires a holistic view of the entire watershed and hydrological network. Land use changes in the upland areas (e.g. cutting trees) will affect the inland-valley system and the water-users downstream. For this reason, these manuals represent only a first step. We hope that you who use them will adapt them to your own socio-economic and biophysical conditions. It is highly probable that we will together add modules and references on aspects that are not dealt with here, such as options of diversification, pisciculture, arboriculture and biodiversity. Eventually, our scope should broaden from integrated rice management to integrated natural-resources management, in general, for the inland valleys of Sub-Saharan Africa. We will be very grateful to those who will send their suggestions and comments for future editions.