Glossary

Agricultural water management: Planned development, distribution and use of water resources in accordance with predetermined agriculture-related objectives.

Agro-ecological zones: Zones defined by FAO on the basis of the average annual length or growing period for crops, which depends mainly on precipitation and temperature. They are: humid (> 270 days); moist subhumid (180–269 days); dry subhumid (120–179 days); semi-arid (60–119 days); and arid (0–59 days).

Commercial farmers: Farmers that produce agricultural products intended for the market to be delivered, sold or stored at commercial structures and/or sold to end consumers (feedlots, poultry farms, dairies, etc.), fellow farmers and direct exports. They generally use high levels of inputs.

Cropping system: The cropping patterns used on a farm and their interaction with farm resources, other farm enterprises, and available technologies that determine their cultivation. The cropping system is a subsystem of a farming system.

Cropland, cultivated land: Cropland is defined as a land cover type by the Global Agro-Ecological Zones (GAEZs) and is used in this report to represent cultivated land. Cultivated land is defined as the sum of arable land and land under permanent crops. Arable land is defined as land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens, and land temporarily fallow (less than five years).

Drought: A phenomenon that exists where precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource production systems.

Dry spell: Short period of water stress during critical crop growth stages and which can occur with high frequency but with minor impacts compared with droughts.

Emerging smallholders: Smallholder farmers with a higher level of technical knowledge and better receptivity to improved technology than traditional smallholders. They tend to specialize in specific crops, relying on irrigation and other types of water control, and tend to market their production surplus.

Farming system: A population of individual farm systems that have broadly similar resource bases, enterprise patterns, household livelihoods and constraints, and for which similar development strategies and interventions would be appropriate. Depending on the scale of analysis, a farming system can encompass a few dozen or many millions of households.

Household: All the persons, kin and non-kin, who live in the same dwelling and share income, expenses and daily subsistence tasks.

Infrastructure: Facilities, structures, and associated equipment and services that facilitate the flows of goods and services between individuals, enterprises and governments. It includes:

public utilities (electric power, telecommunications, water supply, sanitation and sewerage, and waste disposal); public works (irrigation systems, schools, housing and hospitals); transport services (roads, railways, ports, waterways and airports); and research and development facilities.

Intervention (water and complementary): Interventions are a set of actions that can include a combination of infrastructure investments (hard), policy reforms, institutional and financial support, capacity building, extension services, etc. (soft).

Investment: Outlays made by individuals, enterprises and governments to add to their capital. From the viewpoint of individual economic agents, buying property rights for existing capital is also an investment. However, from the viewpoint of an economy as a whole, only the creation of new capital is counted as an investment.

Irrigation: Irrigation refers to water artificially applied to soil, and confined in time and space for the purpose of crop production. They are different type of irrigation systems depending of the level of control, institutional setting, farm size, etc. The equipment may be for permanent or supplementary irrigation.

Irrigation potential: Total possible area to be brought under irrigation in a given river basin, region or country, based on available water and land resources.

Land tenure: The relationship, whether legally or customarily defined, between people, as individuals or groups, with respect to land and associated natural resources (water, trees, minerals, wildlife, etc.).

Livelihood: A livelihood comprises people, their capabilities and their means of living, including food, income and assets. Tangible assets are resources and stores, and intangible assets are claims and access. A livelihood is environmentally sustainable where it maintains or enhances the local and global assets on which livelihoods depend, and has net beneficial effects on other livelihoods. A livelihood is socially sustainable where it can cope with and recover from stresses and shocks, and provide for future generations.

Livelihood assets (capitals): A key component in the sustainable livelihoods approach, they are the assets on which livelihoods are built. They can be divided into five core categories (or types of capital): human capital, natural capital, financial capital, social capital, and physical capital.

Livelihood zone: A livelihood zone is a geographical area within which people broadly share the same livelihood patterns, including access to food, income, and markets.

Malnutrition: Failure to achieve nutrient requirements, which can impair physical and/or mental health. It may result from consuming too little food, or a shortage of or imbalance in key nutrients (e.g. micronutrient deficiencies, or excess consumption of refined sugar and fat).

Multiple use of water: Where water is used for domestic, agricultural or other purposes, reflecting the realities of rural people's multifaceted water use.

Peri-urban agriculture: Agricultural system developed around cities to take advantage of local markets for high value crops (fruits, vegetables, dairy products, etc.).

Rainfed agriculture: Agricultural practice relying exclusively on rainfall as its source of water.

Resilience: The ability of a system (people or ecosystem) to recover quickly from a shock.

Renewable water resources: Average annual

flow of rivers and recharge of groundwater generated from precipitation. Internal renewable water resources refer to the average annual flow of rivers and recharge of groundwater generated from endogenous precipitation.

Rural population: Rural people usually live in a farmstead or in groups of houses containing 5 000–10 000 persons, separated by farmland, pasture, trees or scrubland. Most rural people spend the majority of their working time on farms.

Smallholder farmers: The definition of smallholders differs between countries and between agro-ecological zones. In favourable areas of SSA with high population densities, they often cultivate less than 1 ha of land, whereas they may cultivate 10 ha or more in semi-arid areas, or manage 10 head of livestock. Often, no sharp distinction between smallholders and other larger farms is necessary. Within the smallholder category, this study distinguishes two typologies: traditional and emerging.

Soil moisture management (in situ): Process of preventing runoff and inducing water infiltration in the soil, and then minimizing evaporation to the extent feasible in the cropping area.

Subsistence farming: A form of agriculture where almost all production is consumed by the household, often characterized by low-input use, generally provided by the farm.

Supplementary irrigation: The process of providing additional water to stabilize or increase yields under site conditions where a crop can normally be grown under direct rainfall, the additional water being insufficient to produce a crop.

Traditional smallholders: Smallholder farmers based on traditional subsistence agriculture. Farming is generally rainfed, and production is mainly based on staple crops with low yields. Their main target is self-consumption.

Vulnerability: The characteristics of a person, group or an ecosystem that influence their capacity to anticipate, cope with, resist and recover from the impact of a hazard.

Water access: The degree to which a household can obtain the water it needs from any source in a reliable way for agriculture or other purposes.

Water control: The physical control of water from a source to the location at which the water is applied.

Water harvesting: The process of collecting and concentrating rainfall as runoff from a catchment area to be used in a smaller area, either for agriculture or other purposes.

Water productivity: An efficiency term quantified as a ratio of product output (goods and services) to water input.

Water rights: A legal system for allocating water to a user.

Water scarcity: The point at which the aggregate impact of all users impinges on the supply or quality of water under prevailing institutional arrangements to the extent that the demand by all sectors, including the environment, cannot be satisfied fully.

Water users association (WUA): Association of persons usually sharing the same source of water. A WUA can combine both governance and management functions.

Water withdrawal: The gross volume of water extracted from any source, either permanently or temporarily, for a given use. Agricultural water withdrawal refers to the annual volume of freshwater withdrawn for agricultural purposes.

Insecure access to water for consumption and productive uses is a major constraint on poverty reduction in rural areas. For millions of smallholder farmers, fishers and herders in sub-Saharan Africa, water is one of the most important production assets, and securing access to and control and management of water is key to enhancing their livelihoods. This report argues that the potential exists for well-targeted, local interventions in water that contribute to rapid improvement in the livelihoods of the rural poor and help attain the Millennium Development Goal of eradicating extreme poverty and hunger. It discusses conditions for success and proposes water-based, context-specific, and livelihood-centred approaches to poverty reduction in rural areas.

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