

Glossary

A decorative graphic on the right side of the page. It features several overlapping, curved lines in shades of blue, green, red, and yellow. These lines are accompanied by dotted patterns in the same colors, creating a sense of movement and depth. The background is white, and the overall design is modern and abstract.

Glossary

Adaptation (to climate change): Adjustments to current or expected climate variability and changing average climate conditions. This can serve to moderate harm and exploit beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation.

Adaptive assessment: The practice of identifying options to adapt to climate change and evaluating them in terms of criteria such as availability, benefits, costs, effectiveness, efficiency and feasibility.

Adaptation benefits: Avoided damage costs or accrued benefits following the adoption and implementation of adaptation measures.

Adaptive capacity: The ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

Afforestation: The conversion from other land uses into forest, or the increase of the canopy cover to above the 10 percent threshold.

Ageing of soils: Deposition of polysaccharides and other organic cementing agents by microbial activity in soil.

Agricultural Innovation System: A system of individuals, organizations, and enterprises focused on bringing new products, processes and forms of organization into social and economic use to achieve food and nutrition security, economic development, and sustainable natural resource management.

Agro-ecology: An ecological approach to agriculture that views agricultural areas as ecosystems and is concerned with the ecological impact of agricultural practices.

Agro-ecosystem: The organisms and environment of an agricultural area considered as an ecosystem.

Anaerobic digestion: Anaerobic Digestion is a natural process in which micro-organisms break down organic matter, in the absence of oxygen, into biogas (a mixture of carbon dioxide and methane) and digestate (a nitrogen-rich fertiliser).

Annex I countries: The group of countries included in Annex I (as amended in 1998) to the Framework Convention on Climate Change, including all the OECD countries and economies in transition. Under Articles 4.2 (a) and 4.2 (b) of the Convention, Annex I countries committed themselves specifically to the aim of returning individually or jointly to their 1990 levels of greenhouse gas emissions by the year 2000. By default, the other countries are referred to as Non-Annex I countries.

Agricultural biodiversity (agrobiodiversity): It is the result of natural selection processes and the careful selection and inventive developments of farmers, herders and fishers over millennia. Agrobiodiversity is a vital sub-set of biodiversity.

Aquifer: A water bearing stratum of permeable rock, sand or gravel.

Bagasse: Residues consisting of the fibrous portion of the sugar cane after the juice has been extracted. Used as fuel in sugar mills, as animal feed and in paper production.

Biodiversity: The total diversity of all organisms and ecosystems at various spatial scales (from genes to entire biomass).

Capacity Development (CD): The process whereby individuals, organizations and society as a whole unleash, strengthen, create, adapt and maintain capacity to set and achieve their own development objectives over time.

Carbon dioxide (CO₂): A naturally occurring gas, and also a by-product of burning fossil fuels and biomass, as well as land-use changes and other industrial processes.

Carbon finance (carbon market financing): Resources provided to projects generating (or expected to generate) greenhouse gas (or carbon) emission reductions in the form of the purchase of such emission reductions.

Carbon sequestration: The process of increasing the carbon content of a reservoir or pool other than the atmosphere.

Climate change: Climate change refers to a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'. The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.

Climate extreme (extreme weather or climate event): The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as 'climate extremes.'

Climate-proofing: Ensuring that climate risks are reduced to acceptable levels through long-lasting and environmentally sound, economically viable and socially acceptable changes implemented at one or more of the stages in the project cycle.

Climate-smart agriculture (CSA): Agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes greenhouse gases (mitigation), and enhances the achievement of national food security and development goals.

Climate variability: Variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).

Co-benefits: Multiple benefits in different fields resulting from one policy, strategy, or action plan.

Communication for Development (ComDev): ComDev is a social process based on dialogue using a broad range of tools and methods. ComDev is about seeking change at different levels including listening, establishing trust, sharing knowledge and skills, building policies, debating and learning for sustained and meaningful change.

Conditional transfers: Feature the provision of transfers in exchange of certain actions by beneficiaries, such as sending children to school or attending health clinics. Transfers include food, cash (i.e. 'conditional cash transfers') or vouchers.

Conditional cash transfers: Conditional cash transfers seek to break the cycle of poverty by developing human capital. Cash is provided upon the recipient's fulfilment of specific criteria, including enrolling children in school, regularly visiting the doctor, or receiving vaccinations.

Conservation agriculture (CA): Conservation Agriculture is an approach to managing agro-ecosystems for improved and sustained productivity, increased profits and food security while preserving and enhancing the resource base and the environment. It is characterized by three linked principles, namely, continuous minimum mechanical soil disturbance; permanent organic soil cover; and diversification of crop species grown in sequences and/or associations.

Controlled traffic: Restriction of all heavy wheel traffic to permanent traffic lanes.

Coping capacity: The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

Crop diversification: Species diversification through varied crop associations and/or rotations (involving annual and/or perennial crops including trees).

Cross breeding: Crossbreeding refers to the process of breeding an animal or plant with purebred parents of two different breeds, often with the intention to create offspring or seedlings that share the traits of both parent lineages, or producing an animal or plant with hybrid vigor.

Deficit irrigation: An irrigation practice whereby water supply is reduced below maximum levels and mild stress is allowed with minimal effects on yield.

Deforestation: The conversion of forest to another land use or the long-term reduction of tree canopy cover below the 10 percent threshold.

Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster risk reduction (DRR): The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment and improved preparedness for adverse events.

Disaster risk management (DRM): The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

Drought: The phenomenon that exists when precipitation is significantly below normal recorded levels, causing serious hydrological imbalances that often adversely affect land resources and production systems.

Drylands: Areas characterized by lack of water, which constrains their two major interlinked services of primary production and nutrient cycling.

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.

Ecosystem: The interactive system formed from all living organisms and their abiotic (physical and chemical) environment within a given area. Ecosystems cover a hierarchy of spatial scales and can comprise the entire globe, biomes at the continental scale or small, well-circumscribed systems such as a small pond.

Ecosystem functioning: Builds on the processes shaped by interactions among biological communities of both wild and domesticated species, biophysical processes such as water regulation, and nutrient recycling.

Ecosystem services: Ecological processes or functions that have monetary or non-monetary value to individuals or society at large. There are: supporting services such as productivity or biodiversity maintenance; provisioning services such as food, fibre, or fish; regulating services such as climate regulation or carbon sequestration; and cultural services such as tourism or spiritual and aesthetic appreciation.

Ecosystem resilience: The capacity of an ecosystem to absorb external pressure or perturbations through change and re-organisation, but still retain the same basic structure and ways of functioning.

E-learning (electronic learning): Term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN), audio- and videotape, satellite broadcast, interactive TV, CD-ROM, and more.

Energy efficiency: Ratio of energy output of a conversion process or of a system to its energy input.

Enteric fermentation: Enteric fermentation is a natural part of the digestive process for many ruminant animals where anaerobic microbes, called methanogens, decompose and ferment food present in the digestive tract producing compounds that are then absorbed by the host animal. A resulting byproduct of this process is methane.

Enteric methane: Methane emitted as a natural by-products of microbial fermentation of carbohydrates and, to a lesser extent, amino acids in the rumen and the hindgut of farm animals.

Erosion: The process of removal and transport of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, winds and underground water.

Evaporation: The amount of water that leaves the basin or country as vapor. Evaporation can be beneficial or non-beneficial. Non-beneficial (Enb) includes evaporation from open water bodies (reservoirs, canals) and from bare soil.

Evapotranspiration: It is the sum of evaporation and plant transpiration. It is the water lost from an area through the combined effects of evaporation from the ground surface and transpiration from the vegetation.

Ex-situ conservation: The maintenance of genetic material outside of the 'normal' environment where the species has evolved and aims to maintain the genetic integrity of the material at the time of collecting. Gene banks, botanical gardens and zoos are typical examples of ex-situ conservation activities.

Exposure: The nature and degree to which a system is exposed to significant climatic variations.

Extension: Rural or agricultural extension services refer to the transfer of research and new practices through farmer training. Successful extension does not merely facilitate the use of new technology or crop alternatives, but empowers farmers to make farm management decisions based on knowledge of options available to them.

Externalities: Situations when the effect of production or consumption of goods and services imposes costs or benefits on others which are not reflected in the prices charged for the goods and services being provided.

Farmer Field School (FFS): The FFS approach is an innovative, participatory and interactive learning approach that emphasizes problem solving and discovery based learning. FFS aims to build farmers' capacity to analyze their production systems, identify problems, test possible solutions, and eventually encourage the participants to adopt the practices most suitable to their farming systems.

Food losses: decrease in edible food mass available for human consumption throughout the different segments of the supply chain. In addition to quantitative losses, food products can also face a deterioration of quality, leading to a loss of economic and nutritional value.

Food and nutrition security: This exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

Food system: Involves all processes and activities related to the production, distribution and consumption of food that can feed a population and affects human nutrition and health. It operates within an infrastructure (roads, rivers, ports, energy and communication networks, etc.) and is influenced by political, social, economic and environmental aspects.

Food value chain: The full range of farms and firms and their successive coordinated value-adding activities that transform raw agricultural materials into food products that are sold to final consumers and disposed after use.

Food waste: Food losses resulting from decisions to discard food that still has value. Food waste is most often associated with the behavior of retailers, the food service sector and consumers, but food waste and losses take place all along food supply chains.

Genetic resources (for food and agriculture): This includes any material of plant, animal, microbial or other origin containing functional units of heredity that is of actual or potential value for food and agriculture. Genetic resources for food and agriculture includes the diversity present in agricultural, pastoral, forest and aquatic production systems or of importance to them: the variety and variability of animals, plants and microorganisms at the genetic, species and ecosystem levels that sustain the structure, functions and processes of production systems. This diversity is often the result of the work of farmers, pastoralists, forest dwellers and fisherfolk over many hundreds of generations and reflects the diversity of both human activities and natural processes.

Global circulation model: Numerical models that represent physical processes in the atmosphere, ocean, cryosphere and land surface, and are the most advanced tools currently available for simulating the response of the global climate system to increasing greenhouse gas concentrations.

Green economy: An economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

Green growth: Economic growth that is environmentally sustainable: green in that it is efficient in use of natural resources; clean, in that it minimizes pollution and environmental impacts; and resilient in accounting for natural hazards and the role of environmental management and natural capital in preventing physical disasters.

Greenhouse gases: Those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. This property causes the greenhouse effect. Water vapor (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O) methane (CH₄), and ozone (O₃) are the primary greenhouse gases in the Earth's atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the at-

mosphere, such as the halocarbons and other chlorine and bromine-containing substances, dealt with under the Montreal Protocol. Besides CO₂, N₂O, and CH₄, the Kyoto Protocol deals with the greenhouse gases sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

Hazard: A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

High regret options: They are options valid for future climate but not necessarily for the current climate situation, and would therefore represent costs and have possible negative consequences under current climate, and therefore require careful consideration in terms of risk analysis.

Hydrological cycle: The process of evaporation, transpiration, vertical and horizontal transport of vapor, condensation, precipitation, interception, runoff, infiltration, percolation, storage, the flow of water from continents to oceans, and return.

Impact assessment (of climate change): The practice of identifying and evaluating, in monetary and/or non-monetary terms, the effects of climate change on natural and human systems. Potential impacts: all impacts that may occur given a projected change in climate, without considering adaptation. Residual impacts: the impacts of climate change that would occur after adaptation.

In-situ conservation: implies the maintenance and recovery of viable populations of species in their natural surroundings and – in the case of domesticated or cultivated species on farm – in the surrounding where they have developed their distinctive properties. This method preserves both the population and the evolutionary processes that enable the population to adapt by managing organisms in their natural state or within their normal range.

In-vitro conservation (of animal genetic resources): Conservation by cryopreservation of a breed's genetic material (usually semen, embryos or somatic cells), so that live animals can, if necessary, be regenerated in the future.

In-vivo conservation (of animal genetic resources): Conservation of a breed through maintenance of live animal populations, which encompasses both in-situ conservation of animals in their typical production environment and ex-situ in-vivo conservation, in non-typical surroundings, such as a research farm.

Inclusiveness: Agri-food systems and related agri-food value chains that enable ample participation by commercial input suppliers, farmers, traders, wholesalers, retailers and consumers as well as commonly marginalized groups (the poor, disabled, youth and women) in economic activities. Its focus is on wider social participation in agri-food systems and creating positive benefits to communities; it enables and involves even the smallest of participants in the overall agri-food system and others in a community that may not be involved in commercial activities; fair returns to all participants involved in activities; and fair, equal and safe employment conditions.

Information and Communication Technologies (ICTs): Technologies designed to access, process and transmit information. ICTs encompass a full range of technologies – from traditional, widely used devices such as radios, telephones or TV, to more sophisticated tools like computers, mobile phones or the Internet.

Institutions: Encompasses formal organizations and contracts as well as informal social and cultural norms and conventions that operate within and between organizations and individuals.

Integrated landscape management: An umbrella term for natural resource management systems that recognize the value of various ecosystem services to multiple stakeholders, and how this leads them to pursue different land use objectives or livelihood strategies.

Integrated pest management: An ecosystem approach to crop production and protection that combines different management strategies and practices to grow healthy crops and minimize the use of pesticides.

Joint Implementation (JI): Market-based implementation mechanism defined in Article 6 of the Kyoto Protocol, allowing Annex I countries or companies from these countries to implement projects jointly that limit or reduce emissions or enhance sinks, and to share the Emissions Reduction Units. JI activity is also permitted in Article 4.2(a) of the Framework Convention on Climate Change.

Kyoto protocol: The Kyoto Protocol to the Framework Convention on Climate Change (FCCC) was adopted at the Third Session of the Conference of the Parties (COP) in 1997 in Kyoto. It contains legally binding commitments, in addition to those included in the UNFCCC. Annex B countries agreed to reduce their anthropogenic GHG emissions (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) by at least 5 percent below 1990 levels in the commitment period 2008-2012. The Kyoto Protocol came into force on 16 February 2005.

Land grabbing: Controversial large-scale land acquisitions by domestic and transnational companies, governments, or individuals, which result in the disenfranchisement of the poor. The term has gained currency since the large-scale land acquisitions following the 2007-2008 world food price crisis.

Landscape: Agricultural landscapes can be described in terms of the three elements: (i) structure – the interaction between environmental features, land use patterns and man-made objects; (ii) functions – the provision of landscape functions for farmers and for society (environmental services); and (iii) value – concerning the value the society places on agricultural landscape and the costs of maintaining and enhancing landscape provisions by agriculture. Because the underlying human and natural processes are subject to change and evolution, landscapes are dynamic systems.

Landscape approach: Landscape approach means the management of production systems and natural resources in an area large enough to produce vital ecosystem services and small enough to be managed by the people using the land and producing those services.

Low regret options: see no regret options

Maladaptation: Any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli; an adaptation that does not succeed in reducing vulnerability but increases it instead.

Microfinance: The provision of credit and other financial services to small businesses which typically do not have access to such services, aiming to foster economic development.

Mitigation (in relation to climate change): Technological change and substitution that reduces resource inputs and emissions per unit of output. Although several social, economic and technological policies would produce an emission reduction, with respect to climate change, mitigation means implementing policies to reduce GHG emissions and enhance sinks.

Mitigation (in relation to hazard): The limiting or lessening of the adverse impacts of hazards and related disasters.

National Adaptation Programmes of Action (NAPAs): Documents prepared by least developed countries (LDCs) that identify the activities to address urgent and immediate needs for adapting to climate change.

Nationally Appropriate Mitigation Actions (NAMAs): A set of government prioritized actions aimed at reducing or limiting greenhouse gas emissions.

National platform for disaster risk reduction: A generic term for national mechanisms for coordination and policy guidance on disaster risk reduction that are multi-sectoral and inter-disciplinary in nature, with public, private and civil society participation involving all concerned entities within a country.

Natural hazard: Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Networks: Networks can be vast repositories of data and/or affiliations of expert contacts on particular issues. Networks allow for knowledge to be shared and managed within and across institutions, thereby facilitating collaboration and research. Networks can also take up an advocacy role.

No regret options: options that are valid whether climate change will occur as expected or not. In general, they are aimed at increasing the resilience of rural population and reducing their vulnerability to water-related shocks.

Ocean acidification: Increased concentrations of CO₂ in sea water causing a measurable increase in acidity (i.e. a reduction in ocean pH). This may lead to reduced calcification rates of calcifying organisms such as corals, molluscs, algae and crustaceans.

Paludiculture: The process of transforming land into a wetland such as a marsh, a swamp or a bog.

Partnership brokers: Skilled communicators who support interactive collaboration between different types of stakeholders (e.g. public-private partnerships). Partnership brokering should minimize asymmetries of power between actors, ensuring that all stakeholders are heard and their expertise shared appropriately. Depending on the local context, the capacities and legitimacy available, a brokering role can be played by local government, extension services, civil society organizations or national agricultural research systems.

Payment for Environmental services (PES): An economic instrument designed to provide positive incentives to users of agricultural land and those involved in coastal or marine management. These incentives are expected to result in continued or improved provision of ecosystem services, which, in turn, will benefit society as a whole.

Peatlands: Peatlands or organic soils are soils with a substantial layer of organic matter near or at the surface.

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

Permaculture: Permaculture (permanent+agriculture) is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. It is a land use and community building movement which strives for the harmonious integration of human dwellings, microclimate, annual and perennial plants, animals, soils, and water into stable, productive communities.

Private sector: The part of an economy, industry, etc., which is privately owned and free from direct state control.

Public good: A good with benefits for the broader economy and society, or which generates benefits in a different location from where the activity takes place.

Public sector: The part of a country's economy which is controlled by the state.

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

Reduce, Reuse, Recycle: The '3 R's' of waste management. Reduction refers to minimizing the amount of waste generated from a given operation or process. Reuse refers to using the waste material "as is"— such as using waste oil for fuel. Recycling refers to reclaiming materials from the waste product or transforming the waste product into new products.

Reduced Emissions from Deforestation and Forest Degradation (REDD): REDD is a mechanism to create an incentive for developing countries to protect, better manage and wisely use their forest resources, contributing to the global fight against climate change. REDD strategies aim to make forests more valuable standing than they would be cut down by creating a financial value for the carbon stored in trees. Once this carbon is assessed and quantified, the final phase of REDD involves developed countries paying developing countries carbon offsets for their standing forests. REDD is a cutting-edge forestry initiative that aims at tipping the economic balance in favour of sustainable management of forests so that their formidable economic, environmental and social goods and services benefit countries, communities, biodiversity and forest users while also contributing to important reductions in greenhouse gas emissions.

Reduced Emissions from Deforestation and Forest Degradation Plus (REDD+): REDD+ strategies go beyond deforestation and forest degradation, and include the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in reducing emissions.

Reforestation: The re-establishment of forest formations after a temporary condition with less than 10 percent of canopy cover due to human-induced or natural perturbations. (FAO, 2000a)

Residual feed intake: The difference between an animal's actual feed intake and its expected feed requirements for maintenance and growth.

Resilience: The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner.

Riparian: Relating to land adjoining a stream or river.

Risk: The combination of the probability of an event and its negative consequences.

Risk assessment: A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Safety nets: A sub-set of broader social protection systems. Safety nets mostly include non-contributory transfers, such as in-kind food, cash or vouchers; they can be provided conditionally or unconditionally, and can be targeted or universal in coverage. Safety nets may also include other interventions to improve access to food and basic essentials, such as price subsidies. The terms safety nets, social safety nets, social transfers and social assistance are often used interchangeably.

Salinisation: The accumulation of salts in soils.

Sensitivity (to climate variability or change): Sensitivity is the degree to which a system is affected, either adversely or beneficially, by climate variability or change. The effect may be direct (e.g. a change in crop yield in response to a change in the mean, range or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to sea-level rise).

Smallholder: The definition of smallholders differs between countries and between agro-ecological zones. In favourable areas of smallholder subsistence agriculture with high population densities, smallholders often cultivate less than one hectare of land, whereas they may cultivate ten hectares or more in semi-arid areas, or manage up to ten head of livestock.

Social protection: initiatives that: (1) provide income (cash) or consumption (food) transfers to the poor; (2) protect the vulnerable against livelihood risks; and (3) enhance the social status and rights of the excluded and marginalised”.

Soil health: The capacity of soil to function as a living system.

Soil organic matter (SOM): Soil organic matter is any material produced originally by living organisms (plant or animal) that is returned to the soil and goes through the decomposition process. At any given time, it consists of a range of materials from the intact original tissues of plants and animals to the substantially decomposed mixture of materials known as humus.

Soil structure: Soil structure is defined by the way individual particles of sand, silt, and clay are assembled. Single particles when assembled are called aggregates. Aggregation of soil particles can occur in different patterns, resulting in different soil structures.

Soil texture: Texture indicates the relative content of particles of various sizes, such as sand, silt and clay in the soil.

Subsoiling or Ripping: Soil preparation treatment done with tined implements to break up hardpans without turning the soil upside down.

Supplementary irrigation: The process of providing additional water to stabilise 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. The concept consists in making up rainfall deficits during critical stages of the crops in order to increase yields.

Supply chain: The full range of activities, which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final customers, and final disposal after use.

Sustainability (Economic): A situation whereby: (1) the value added resulting from upgrading in the value chain (additional profits, wages, taxes, consumer value) is positive for each stakeholder in the extended value chain whose behavior (in terms of upgrading) is expected to change in order to create the additional value; and (2) the generation of added value sets in motion, or speeds up, a process of growth and structural transformation.

Sustainability (Environmental): Meeting the needs of the present without compromising the ability of future generations to meet their needs.

Sustainable and inclusive value chain development: The full range of farms and firms and their successive co-ordinated value-adding activities that transform raw agricultural materials into food products that are sold to final consumers and disposed after use, in a manner that is profitable throughout the chain, has broad-based benefits for society and does not permanently deplete natural resources.

Sustainable use of genetic resources: The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Triple bottom line: The intersection of social, environmental and financial performance.

Unconditional transfers: Transfers that do not require reciprocal actions by beneficiaries (such as sending children to school) in order to access program transfers.

Vulnerability: The propensity or predisposition to be adversely affected; a function of potential impacts (exposure and sensitivity to exposure) and adaptive capacity.

Watershed: A topographically delineated area that is drained by a stream system, i.e. the total land area that drains to some point on a stream or river. The watershed is a hydrologic unit that has been described and used as a physical-biological unit and a socio-economic-political unit for planning and managing of natural resources.

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 fully satisfied.

Weather-index insurance: A class of insurance products that can allow weather-related risk to be insured in developing countries where traditional agricultural insurance may not always be feasible, thereby helping to increase farmers' ability (and willingness) to invest in measures that might increase their productivity.



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