

This Glossary is intended to provide very general explanations for key terms used in the Second Screen documents. The explanations and definitions are by no means comprehensive, and users are encouraged to conduct additional research from web resources as time allows.

➤ **GLOSSARY OF TERMS USED IN THE SECOND STAGE SCREENING FORMS**

Acidification: the process of making a substance or matter acidic, lowering its pH or making it “sour.” Soil acidification and its effects on crops can be counteracted by fertilization and liming.

Aeration: refers to a process by which air is circulated through, mixed with or dissolved in a liquid or substance. The technique is used to improve water quality and treat sediment in wastewater. Aeration of soils in contaminated land may cause air pollution.

Aerobic: refers to the presence of oxygen for a chemical or biological process.

Agrifiber: agricultural fibers such as grass straw, cereal straw, rice straw or bagasse, used for the production of casing panels. They are found in the core of the panel where they replace composite wood.

Air Stripping: chemical engineering technology used for the purification of groundwaters and wastewaters containing volatile compounds. It involves transferring of volatile components of a liquid into an air stream.

Aquifer: hydraulically active body of porous rock or permeable unconsolidated material that is capable of storing water. Aquifers function as natural storage areas for groundwater.

ASHRAE: American Society of Heating Refrigerating and Air Conditioning Engineers. ASHRAE publishes a series of standards and guidelines for HVAC systems that represent a reference in the field.

Audubon Cooperative Sanctuary Program (ACSP): education and certification program that helps golf courses protect the environment and preserve the natural heritage of the game of golf. By enhancing the valuable natural areas and wildlife habitats that golf courses provide, improving efficiency, and minimizing potentially harmful impacts of golf operations, the program serves as vital resource for golf courses. (www.auduboninternational.org/ge.html) Projects that include facilities with golf courses must include measures to improve the environmental integrity of the existing or planned golf course consistent with the ACSP (e.g., environmental planning for golf course, wildlife and habitat management, apply water conservation and quality measures, and implement best practices for chemical management).

Baseline: measurement used as a basis for comparison. For an energy efficient project, the baseline will be the energy consumption of the old equipment before replacement.

Bioaccumulation: refers to the accumulation of substances, such as heavy metals, pesticides or other organic chemicals in an organism. It occurs when an organism absorbs a toxic substance at a rate greater than that at which the substance is lost. Bioaccumulation is usually used to describe accumulation of harmful substances that can have a detrimental impact on an organism's reproductive capacity or overall health.

Biochemical Oxygen Demand (BOD): An indication of the extent to which water is polluted by sewage or other organic waste. It is a measure of the dissolved oxygen consumed by microorganisms as they break down the organic matter in a sample of water. It is expressed in parts per million of dissolved oxygen consumed.

Biodiesel: biofuel produced from oilseed crops such as soy or sunflower, or from the fruit and seeds of trees and shrubs such as African palm and jatropha and intended for use in diesel engines.

Biodigestion: a process where microorganisms break down organic material in the absence of oxygen.

Biodiversity Management Plan: a management plan designed to ensure the long- term survival of the species to which the plan refers. The plan takes into consideration the biological characteristics of the species concerned and the geographic range where it applies.

Biofuel: Gas or liquid fuel made from feedstocks derived from plants, trees, or organic waste materials.

Biogasification: decomposition of biomass into gas (mostly methane) by anaerobic bacteria.

Biological control: Taking advantage of a pest's natural vulnerability in order to control it, pest control using introduced predators, parasites, disease organisms, or release of sterilized individuals rather than applied pesticides.

Biological/Wildlife Corridor: area or habitat connecting wildlife populations separated by human activities. Corridors may help facilitate the re-establishment of populations that have been reduced due to habitat fragmentation.

Biomass: organic materials, such as wood, agricultural crops or wastes, and municipal wastes that can be used to produce energy, heat or bio-plastics.

Bioremediation: process that uses microorganisms, fungi, green plants or their enzymes to return the natural environment altered by contaminants to its original condition.

BTU: British Thermal Unit; unit of measurement of energy. 1 BTU = 1.06 kilojoules (kJ).

Bus Rapid Transit System (BRT): is a term applied to a variety of public transportation systems that use buses to provide a service that is of a higher speed than an ordinary bus line using dedicated lanes serving stations dedicated to the system, similar to rail systems. Often this is

achieved by making improvements to existing infrastructure, vehicles and scheduling. The goal of these systems is to approach the service quality of rail transit while still enjoying the cost savings of bus transit.

Carbon Footprint: cumulative measurement of the impact that a product, service, activity, company, individual or other entity has on the climate in terms of the amount of greenhouse gases emitted. These emissions usually result from energy consumption and other sources. Carbon footprint is measured in units of carbon dioxide equivalent.

Carbon Neutral: implying that there have been no net GHG emissions resulting from the manufacture of a product or completion of a process. Achieving carbon neutrality typically involves calculation of an entity's total GHG emissions, reducing these where possible, and then offsetting the remaining emissions, typically by purchasing a carbon offset.

Carbon Offset: quantifiable reduction in greenhouse emissions resulting from a project that changes the reference or baseline case to a project case with lower emissions. To be commercially valuable and monetizable, the reductions must be real, additional (ie., they wouldn't have happened anyway) and permanent; to demonstrate this, the offset must generally be certified by a third party certification body, which will require the application of an accepted methodology to calculate the volume of greenhouse gases (in tons) generated by a given project, such as an approved methodology for use in the CDM, the Gold Standard, the Voluntary Carbon Standard (VCS) or another.

Carrying Capacity: maximum number of people that may visit a tourist destination at the same time without causing destruction of the physical, economic, and socio-cultural environment while resulting in an unacceptable decrease in the quality of visitor's satisfaction. (United Nations World Tourism Organization [UNWTO, 1981]). Mechanisms used to evaluate this are Limits of Acceptable Change (LAC) and Visitor Impact Management (VIM), among others.

CDM: Clean Development Mechanism; certain provisions of the Kyoto protocol established the framework for creating and registering offsets, in the form of reductions in emissions of six different GHGs. Under the CDM, buyers of carbon from the industrialized countries that are parties to the Kyoto Protocol can purchase offsets from emission-reduction projects in developing countries (that are also parties to the Kyoto Protocol) to meet their emissions reduction targets.

Certification: set of verification procedures that provides independent third party verification that a product or a building meets certain standards (energy efficiency, water efficiency, recycled materials, etc). Energy efficiency certification systems set technical thresholds that products must meet in order to be certified. Energy efficiency certification bodies usually issue lists of certified equipments (appliances, lighting products, insulation materials, etc) detailed to the product number level. Building certification systems are usually built around a scoring system that rates the performance of a building for energy efficiency, water efficiency, used of recycled materials, etc.

CFL: Compact Fluorescent Lamp; new energy efficient lamp technology designed to replace incandescent lamps. Screw in CFL's are very easy to remove and replace with a less energy efficient light bulb. For this reason they do not offer enough guarantees regarding persistence of savings and are not eligible under IDB's Green Lines.

Closed cycle systems (geothermal): The most common type of geothermal installation is a closed loop /closed cycle system. The heat exchanger - a loop of piping filled with fluid - is buried underground. The fluid circulates continuously inside the buried pipe, absorbing heat from the earth.

Closed-Loop System: closed-loop water system designed to collect all the water generated by an industrial process and recycle it in a water treatment plant. The treated water is then reused as an input for the process.

CO₂: Carbon dioxide, a colorless gas that is produced by animal respiration, fermentation, and by the burning of hydrocarbons.

Compaction: the reduction in pore space and the consequent increase in density of a soil, agriculture projects should implement measures to prevent soil compaction.

Computer Time-out Control: software control that shuts down a computer after a given period of time. Since these controls could be easily changed or deactivated, they do not usually qualify as energy efficiency projects.

Concentrating Solar Power (CSP): mirror-based solar power technology that concentrates sunlight onto a collector to heat a thermal medium (which may be an oil or another suitable material, such as molten salt) in order to heat water and produce steam that is in turn fed to steam turbines to produce electricity.

Connectivity to public transportation: ease of access to public transportation (bus, subway, mass transit hubs, etc).

Consultation: consists of a constructive dialogue between the affected parties and the project sponsor, where each actor listens to the concerns, expectations and proposals of the others. Meaningful consultations involve consideration of other counterparts' views to a reasonable extent, and imply that the parties involved are willing to be influenced in their opinions, activities and plans, thus resulting in concrete actions incorporating the results of consultation. This process is required for All Category A and B operations.

Containment Treatment: process performed to prevent, or significantly reduce, the migration of contaminants in soils or ground water. Containment is necessary whenever contaminated materials are to be buried or left in place at a site. The treatment sites require periodical inspections for settlement, ponding of liquids, erosion, and naturally occurring invasion by deep-rooted vegetation.

Contour Plowing: farming practice of plowing across a slope following its elevation contour lines. The rows formed slows water run-off during rainstorms to prevent soil erosion and allows time for the water to settle into the soil.

Cool Roof Systems: white roof coating system applied on commercial or residential buildings to provide both a reflective surface to minimize solar heat absorption and add a layer of insulation to minimize heat transfer to the interior of the building. Cool roofs are expensive, result in limited savings, and usually do not yield a satisfactory payback.

Cover Crops: any crop grown to provide soil cover, regardless of whether it is later incorporated. Cover crops are grown primarily to prevent soil erosion by wind and water.

Critical Cultural Sites: include but are not restricted to those protected or officially proposed by governments for protection (such as World Heritage Sites and National Monuments) and areas initially recognized as protected by traditional local communities (e.g. sacred groves).

Critical Natural Habitats: are (i) existing protected areas, areas officially proposed by the governments for protection or sites that maintain conditions that are vital for the viability of the aforementioned areas; and (ii) unprotected areas of known high conservation value. Existing protected areas may include reserves that meet the criteria of the IUCN Protected Area Management Categories I through VI; World Heritage Sites; areas protected under the RAMSAR Convention on Wetlands; core areas of World Biosphere Reserves; and areas in the UN List of National Parks and Protected Areas. Areas of known high conservation value are sites that in the Bank's opinion may be: (i) highly suitable for biodiversity conservation; (ii) crucial for critically endangered, endangered, vulnerable or near threatened species listed as such in the IUCN Red List of Endangered Species; and (iii) critical for the viability of migratory routes of migratory species.

Crop Rotation: also known as Crop Sequencing; practice of growing a series of dissimilar types of crops in the same area in subsequent seasons. Such practice helps to avoid the build-up of pathogens and pests that often occurs when one species is continuously cropped. It also seeks to balance the fertility demands of various crops to prevent excessive depletion of soil nutrients.

Cultural Heritage: expression of the ways of living developed by a community and passed on from generation to generation which encompasses customs, practices, places, objects, artistic expressions and values. Cultural Heritage is often expressed as either Intangible or Tangible Cultural Heritage. ICOMOS International Cultural Tourism Charter. (<http://www.icomos.org>)

Cumulative Effects: effects on the environment that result from the incremental effect of the action when added to past, present and reasonably foreseeable future actions regardless of what [entity] or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (FEMAT, 1993, Forest Ecosystem Management Assessment Team Report. Sponsored by USDA Forest Service, US Environmental Protection Agency, USDOJ Bureau of Land Management, National Park Service. Portland, Oregon.)

Daylighting: use of daylight rather than artificial light to lit the interior spaces of a building. Increased daylighting is usually provided through use of large windows, skylights, light tubes and reflective surfaces.

Designated National Authority: An entity designated by the COP/MOP, based on the recommendation by the Executive Board, as qualified to validate proposed CDM project activities as well as verify and certify reductions in anthropogenic emissions by sources of greenhouse gases (GHG) and net anthropogenic GHG removals by sinks. The meeting of the Parties refers to the Parties to the Kyoto Protocol. The Conference of the Parties serves as the meeting of the Parties, and when this occurs it is known as the COP/MOP.

Designated Operational Entity (DOE's) are independent auditors that assess whether a potential project meets all the eligibility requirements of the CDM.

Drip Irrigation: also known as **Trickle Irrigation** or Microirrigation; method which saves water and fertilizer by allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone, through a network of valves, pipes, tubing, and emitters.

Efficient spraying techniques: spray techniques designed to use minimal agrochemical inputs and are applied only when and where needed with reduced losses to the environment.

Electronic Ballast: electronic ballasts increase lamp-ballast efficacy, leading to increased energy efficiency and lowering operating costs. Electronic ballasts operate lamps using electronic switching power supply circuits. Electronic ballasts take incoming 60Hz power (120-277 volts) and convert it to high-frequency AC (usually 20 to 40 kHz). Electronic ballasts are more efficient than magnetic ballasts in converting input power to the proper lamp power.

Energy Service Corporation (ESCO): a company that implements measures which reduce energy consumption and costs in a technically and financially viable manner.

Environmental and Social Management System: set of processes and practices that enable an organization to reduce its environmental and social impact and increase its operating efficiency (US EPA).

Ethanol: biofuel produced from the fermentation of sugar from energy crops and intended for use in gasoline engines.

Feedstock: is the raw material, usually plant or agricultural waste that can be processed into fuel energy.

Ferti-irrigation: application of fertilizer in irrigation water.

Fixture (lighting): electrical equipment composed of an outer shell housing the lamp, a reflector and an aperture (with or without a lens). Lighting fixtures are usually attached to ceilings, under cabinets or can be stand-alone such as table luminaries.

Fixture (plumbing): equipment that delivers and drains water in a building. Examples of plumbing fixtures include sinks, toilets, bathtubs, showers, etc.

Flaring: process of burning unused gas extracted from an oil or a gas field.

Flex Fuel: refers to vehicles that can operate on a gasoline/ethanol blend or pure ethanol.

Flourescent lamp: fluorescent lamps are usually white in color. They use electricity to create an electric arc that excites mercury vapor contained in the lamp and produce light. Linear fluorescent lamps are tube-shaped and come in different lengths and efficiency. T12 linear fluorescent lights are progressively being replaced with more efficient T8 lamps. Compact Fluorescent Lamps (CFLs) are designed to replace incandescent light bulbs and come in different shapes: twist, double-turn tube, etc.

Forebay/Headpond: relatively small reservoir from which water is directed into the turbines of a hydropower plant, typically a run-of-river facility.

FSC: Forest Stewardship Council, is a non-profit organization devoted to encouraging the responsible management of the world's forests. (www.fsc.org)

Genetic Modified Organisms (GMOs): organisms created via genetic engineering process whereby genes from one organism are introduced into the genome of another organism. In the case of genetically engineered foods, genes from bacteria or other plants or organisms are moved into crop varieties with the assistance of a viral vector. Such modification can give existing domesticated plant varieties new and commercially valuable attributes, such as herbicide tolerance, insect resistance, as well as drought and/or heat tolerance.

GJ: Gigajoule; unit of measurement of energy (see GJ).

GHG: Greenhouse gas; in the context of the Kyoto Protocol, the six gases controlled are carbon dioxide, methane, nitrous oxide, perfluorocarbons, hydrofluorocarbons, sulphur hexafluoride.

Gray water system: untreated wastewater which has not come into contact with toilet waste. Gray water includes used water from bathtubs, showers, bathroom wash basins, and water from clothes-washer and laundry tubs. It shall not include wastewater from kitchen sinks or dishwaters.

Global Sustainable Tourism Criteria: a set of criteria applicable worldwide to hotels and tour operators that determine whether or not the business approaches sustainability. (www.sustainabletourismcriteria.org)

Gold standard (CDM): a best practice methodology and a high quality carbon credit label for both Kyoto and voluntary markets. (www.cdmgoldstandard.org)

Green Manuring: process of soil improvement via incorporation of any field or forage crop while green or soon after flowering.

Halogen lamp: lamp technology that provides higher color temperature and longer life than regular incandescent lamps through the use of a halogen gas inside the light bulb. Halogen lamps have low energy efficiency.

High Conservation Value Forest : (HCVF) is a Forest Stewardship Council (FSC) forest management designation used to describe those forests who meet criteria defined by the FSC Principles and Criteria of Forest Stewardship. Specifically, high conservation value forests are those that possess one or more of the following attributes:(a) forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape-level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance(b) forest areas that are in or contain rare, threatened or endangered ecosystems(c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)(d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

HVAC: Heating Ventilation and Air Conditioning. HVAC systems are designed to provide adequate indoor environmental comfort they are usually composed of a cooling system, a heating system, temperature sensors and ducts which supply building spaces with conditioned air.

Hazardous materials: chemicals or materials (solid, gas, or liquid) that are toxic to humans, animals or flora, and unprotected exposure to which may result in severe illness or death; they may be poisonous, flammable, explosive, carcinogenic, or environmentally pollutant.

Integrated Pest Management: pest control strategy that advocates the use of a variety of complementary techniques: mechanical, genetic, biological, cultural and chemical. The aim is to reduce or eliminate the use of pesticides while keeping the level of pest population at an acceptable level.

Intercropping: agricultural practice of cultivating two or more crops in the same field during the same growing cycle. This may improve crop yields, control certain kinds of pests, or may have other agronomic benefits.

ISO 14001: is an international standard for environmental management system to be implemented in any business, regardless of size, location income. The most recent version of ISO 14001 was released in 2004 by the International Organization for Standardization (ISO) which has representation from committees all over the world.

kJ: kilojoule; a unit of energy (see GJ).

kW: Kilowatt; unit of measurement of power (see MW).

KWh: kilowatt hour, unit of measurement of energy (see MWh).

Landfill gas: landfill gas is about 40-60% methane, with the remainder being mostly carbon dioxide (CO₂). Landfill gas also contains varying amounts of nitrogen, oxygen, water vapor, sulfur and other contaminants.

Land Resting: idling the land to promote a healthy ecosystem by allowing the flora and fauna to complete an entire annual cycle without any major disturbance.

LEED: Leadership in Energy and Environmental Design. (<http://www.usgbc.org/>)

Lighting controls: system that turns lights on and off. Automatic controls can be controlled by timers, occupancy sensors or daylight sensors.

Livestock-Crop Integration: crops and livestock incorporated in spatially and/or temporarily overlapping ways on individual farms or between nearby farms providing agronomic, economic, ecological, and social benefits.

Low-emitting paints: low- or no-VOC "volatile organic compound" paints have a lower odor and less impact on air quality than higher VOC-content paints, they are excellent for use in buildings where it is desirable to maintain good indoor air quality, such as hospitals, schools, homes and workplaces. The use of low-VOC paint reduces toxins that cause allergy and chemical sensitivities, reduces contaminant concentrations in landfill, groundwater and the ozone, provides easy cleanup with soap and water and produces lower odor.

Manure management: includes both the management of liquid and solid portions of manure. Components of manure management include: collection, transfer, storage, possible treatment, hauling and utilization (land application).

Mechanical Control/ Physical control (Agriculture): Mechanical control is the management of pests by physical means such as the use of a barrier (e.g., screens or row covers, insecticidal soaps, horticulture, etc), trapping, weeding or removal of the pest by hand. It may also involve changing the physical conditions in a given area, for example, changing the temperature to make an area unfavorable for pests.

Monitoring and verification: large stage of an energy efficiency project; sensors and monitoring equipment are installed to monitor the newly installed equipment is being paid based on the savings achieved by the equipment.

MW: Megawatt; unit of measurement of power (1000 kW). A nuclear power plant produces between 500 and 1000MW. The largest wind turbines on the market have capacities in excess of 2 MW.

MWh: Megawatt-hour; unit of measurement of energy (1000 kWh). As a point of reference, electricity consumption in the U.S. in 2005 was about 35 kWh per person per day; 1 MWh would therefore represent the consumption of about 29 people in the U.S. per day, or approximately 11-12 homes based on an average U.S. household size of 2.6 people (2006).

Natural Habitat: biophysical environment where (i) the ecosystem's biological communities are formed largely by native plant and animal species; and (ii) human activity has not essentially modified the area's primary ecological functions. Natural habitats may be sites that (i) provide critical ecological services required for sustainable human development (e.g., aquifer recharge areas, areas that sustain fisheries, mangrove or other ecosystems that help to prevent or mitigate natural hazards; (ii) are vital to ensure the functional integrity of ecosystems (e.g., biological corridors, natural springs); and (iii) have high levels of endemism. Natural habitats may occur in tropical humid, dry, and cloud forests; temperate and boreal forests; natural arid and semi-arid lands; mangrove swamps, coastal marshes, and other wetlands; estuaries; seagrass beds; coral reefs; underwater vents; freshwater lakes and rivers; alpine and sub-alpine environments, including herb fields and grasslands; and tropical and temperate grasslands.

Negative Significant Impact: impact is considered significant when: (i) it extends over a large geographic area; (ii) is permanent or occurs for an extended period of time; and (iii) is of high intensity and /or high magnitude. An absolute definition of significant impact is not possible, as the significance of an activity may vary with the setting.

Net Metering: electrical meter function that allows individual customers who own renewable energy producing devices (such as windmills, solar panels, etc) to feed and sell the electricity they produce back to the electrical grid.

No spray drift: The drift of spray and dust from pesticide applications that can expose people, wildlife, and the environment to pesticide residues causing health and environmental effects and property damage.

No-Till Farming: also called Zero Tillage; technique of growing crops from year to year without disturbing the soil through tillage. No-till is an emergent agricultural practice which can enhance the level of water in the soil and decrease erosion. It may also increase the amount and variety of life in and on the soil but may require increased herbicide usage.

Non-timber Forest Products: all forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.

Nutrient Management: managing the amounts, sources, placement, forms, and timing of the application of plant nutrients and soil amendments.

Organic Farming: ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity.

OSHAS 18001: is the standard against which organizations are assessed on their health and safety performance.

Particulate Matter: A category of air pollutants that refers to small, solid particulates or liquid droplets suspended in air. Such particulates include soot, fumes, dust, pollen and spores, smoke, spray, and even fog.

Performance contracting: financing mechanisms for energy efficiency projects where the contractor who installs the energy efficiency equipment is being paid based on the savings achieved by the equipment.

Permeable surface: a surface that allows fluids such as water to pass through. A range of materials and techniques are used for paving roads, parking lots and walkways that allow the movement of water and air around the paving material. The use of permeable paving is an important component in low impact development, a process for land development that attempts to minimize the impacts on water quality. Some examples of permeable surfaces are: pervious concrete, porous asphalt, porous turf, open-jointed blocks.

Persistence of Savings: describes the fact that energy savings achieved by an energy efficient project will be achieved year after year for the entire lifetime of the installed equipment. Some energy efficient projects do not guarantee persistence of savings: this is the case of screw-in CFL's which can be removed easily and replaced with incandescent bulbs thus negating energy savings.

Persistent Pesticides: Chemical compounds used for pest control that do not readily break down once released into the environment. They become more or less permanent features of the ecosystem, working their way up the food chain to reach high concentrations in the tissues of higher predators.

Photovoltaic (PV): capable of producing a voltage through photoelectric effect when exposed to radiant energy, usually light.

Phytoremediation: technologies that clean contaminated sites by using vegetation and not require mechanical excavation in order to extract pollutants from the soil.

Plug-Load Sensor: energy efficiency sensor connected to electrical equipment (such as a TV or a computer) that shuts down the equipment when no one is present in the room. Plug-load sensors can be easily removed and thus present a risk in terms of permanence of savings. For that reason the sensors are usually not considered eligible for funding as energy efficiency projects.

Power Factor Correction: procedure that resynchronizes current and voltage signals on an electrical system in order to minimize line losses. It usually requires the addition of electrical hardware such as inductors and capacitors.

Protected Area: clearly defined geographical space, recognized, dedicated and managed through legal or other effective means in order to achieve the effect of long term conservation of nature and incorporate associated ecosystem services and cultural values.

Protected Wildlife Species: plants, animals, or other organisms whose populations are seriously reduced, who are in acute need of conservation, and where such need is stipulated by laws, regulations, or international agreements.

Re-commissioning: building or factory-wide equipment tune-up.

Recycling: re-use of waste materials in the production of new products to reduce the consumption of fresh raw materials. Many materials can be recycled: glass, paper, some plastics, metals, textiles, etc.

Refurbish: To modify (upgrade) existing systems or equipment using new, improved or more efficient parts developed or made available after the time of original manufacture with the aim of enhancing its ability to improve performance.

Retrofit: addition of new technology to an older system. In the case of energy efficiency, retrofitting consists in replacing and old inefficient equipment with a new efficient one. Examples of energy efficiency retrofits include: replacement of incandescent with CFL's, replacement of an old standard electric motor with a premium efficiency one, installation of variable frequency drives on existing motors to optimize energy consumption, etc.

Run-of-River: hydropower plant whose output is closely linked to the flow of the river; such plants typically have small reservoirs to hold water that is channeled into penstocks that conduct water at high pressure to the turbines. Such plants are typically small facilities with capacities of less than 50 MW.

R-30: measure of insulation level for building insulation. R-values are a straightforward way of measuring insulation. A low number indicates low insulation level (R-1, R-5, etc), a high number indicates a high insulation level (R-30, R-32, etc).

Salinization: the process of salt accumulation in the soil that is usually caused by evaporation of saline groundwater moving upward through capillary action, or by continued evaporation of water from irrigation of crops.

Second Generation Ethanol Production Processes: cellulosic ethanol production techniques that have a much higher efficiency than first generation corn-based processes.

SFI: The Sustainable Forestry Initiative is a standard promotes sustainable forest management. (www.sfiprogram.org)

Socio-Cultural Analysis: required procedure undertaken when an operation may cause significant socio-cultural impacts on affected people. The analysis is used to identify the people that will be significantly affected by a project and to establish an action plan to avoid, reduce or mitigate the significant negative socio-cultural impact of an operation.

Soil Compaction: phenomenon that occurs when soil particles are pressed together, reducing pore space between them. Compacted soils usually have a lower rate of water infiltration and drainage and a lower gas circulation capacity. Soil compaction has a detrimental impact on plants growth and crops productivity.

Soil Salinization: accumulation of soluble salts of sodium, magnesium and calcium in a soil to the extent that the soil fertility is severely reduced and the soil becomes improper for crops culture. Soil salinization can occur when improper irrigation techniques are employed (e.g. if a field is improperly drained, water will tend to evaporate on-site and salts dissolved in the water will concentrate in the field).

Solar Water Heating (SWH): system that consists of dark panels and water pipes that absorb the sun energy and transfer it to the circulating water. Solar water heating systems are usually installed in rooftop applications.

Spray Drift: phenomenon describing the drift of pesticides and chemicals to the surrounding environment during their application on crops. Spray drift occurs when airborne spray particles move from the intended contact area to other areas. Inappropriate pesticide application can lead to off-target contamination due to spray drift and "run-off" from plants, causing contamination of the bystanders, the soil, water courses and other environmental pollution. Pesticide spray drift can be harmful to surrounding ecosystems and neighboring communities. Application technologies and application practices can be implemented to minimize spray drift.

Tail Water Recycling: a system that catches runoff water from the field and returns it to use for irrigation. Most often a pump and a ditch or pipeline conveyance system move the reused tail water to where it will be applied.

T8: energy saving fluorescent lamps. For years, commercial lighting has been dominated by the common 1.5-inch diameter (T12) cool-white fluorescent lamps and transformer-type magnetic ballasts. This older technology is fast becoming obsolete. High-efficiency 1-inch (T8) lamps—teamed up with electronic ballasts—are setting new standards for low power consumption, low life-cycle cost and illumination that more closely resembles natural light.

Third-party technical evaluator: specialized entity hired to provide an independent assessment of the performance of a project. For energy efficiency projects an independent engineering company will be hired, perform measurement and develop calculations in order to verify project performance.

Tillage: agricultural preparation of the soil by ploughing, ripping, or turning it.

Toxic substance: a chemical or mixture that may present an unreasonable risk of injury to health or the environment.

Trickle Irrigation: also known as Drip Irrigation or Microirrigation; method which saves water and fertilizer by allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone, through a network of valves, pipes, tubing, and emitters.

Trishaws: is a small-scale local means of transport; it is also known by a variety of other names such as pedicab, bikecab, cyclo, or trishaw.

Turbidity: A lack of clarity in a fluid, usually caused by turbulent flow picking up large quantities of particulates. Turbidity can refer either to air hazy with pollutants, or to water carrying large quantities of suspended silt or organic matter.

VOC's: Volatile organic compounds are organic chemical compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the earth's atmosphere. Volatile organic compounds are numerous and varied.

Voluntary Carbon Standard (VCS): provides a set of standards for voluntary carbon offset projects. It ensures that carbon offsets that business and consumers buy can be trusted and have tangible environmental benefits.

Watershed: the total area of land surface from which an aquifer or a river system collects its water.

WBCSB: The World Business Council for Sustainable Development (WBCSD) is a CEO-led organization with a global association of some 200 companies dealing exclusively with business and sustainable development. (www.wbcd.org)

Wood Tracking System: enables tracking of wood all the way through the value chain into the final products.

WRI: World Resources Institute (www.wri.org)

Xeriscaping: landscape design using native and drought-tolerant species of plants and appropriate water-management design.