



## Explanatory Notes on Main Statistical Indicators

**Natural Resources** refers to material resources that could be obtained from the nature by human being and used for production and living. Natural resources in general can be classified as renewable resources and non-renewable resources. Renewable resources refer to resources that could be renewed and recycled during a relatively short period of time, including land resource, water resource, climate resource, biology resource and marine resource. Non-renewable resources include resources that could not be renewed, such as minerals and geothermal resource.

**Land Resources** refers to the surface part of the land, which consists mainly of rocks, rock weathering and soil. According to the utilization type, it can be divided into agricultural land, construction land and unused land. Agricultural land includes cultivated land, garden land, forest land, pasture land, rural roads, water surface of pits and ponds, water surface of reservoirs, ditches, agricultural land for installation and ridges. Land for construction includes land for urban and rural areas, industrial and mining areas, land for transportation, and land for water conservancy facilities. Unutilized land refers to land other than agricultural land and construction land, including tidal flats, river water surfaces, lake water surfaces, saline-alkali land, sandy land, bare land, etc. .

**Cultivated Area** refers to the area of land on which crops are grown. Cultivated land includes mature land, new development, reclamation, finishing land, leisure land (including round rest land, fallow land); Land mainly grown on crops (including vegetables) with sporadic fruit, mulberry or other trees; The average annual harvest can ensure the harvest of the reclaimed beach land and sea flat. Cultivated land includes fixed ditches, canals, roads and ridges with width less than 1 meter in the south and width less than 2 meter in the north.

**Forests Include** arbor forests, bamboo forests and shrubs specially specified by the state. According to the use can be divided into shelter forest, special use forest, timber forest, economic forest and energy forest.

**The Forest Area** includes the whole woodland range of arbor forest and bamboo forest supplied by 'three adjustments' and the land change survey, and shrubbery specially stipulated by the state; wood oil forest such as oil tea, industrial raw material forest such as rubber, and dried fruit economic forest such as walnuts; closely related to forest carbon sink, ecological protection and beautiful environment, forest with a canopy density of more than 0.2 in the forest swamp area, mangrove with forest and shrubbery coverage standard; arbor forest and bamboo forest within the construction land area..

**Water Resource** refers to water that exists in the nature in solid, liquid and gaseous states, is distributed in the ocean, land (including earth) and air, and constitutes the water resource through the circulation of water. Water resource includes the surface water and underground water that is controlled by the

human being for irrigation, power-generation, water supply, navigation and cultivation. It also includes rivers, lakes, wells, springs, tides, gulf and water area for cultivation. Water resource as an important natural resource is indispensable for the development of the national economy.

**Surface Water and Underground Water** Water on earth can be divided into surface water and underground water according to its distribution. Surface water refers to moisture exists in rivers, lakes, swamps, glaciers, icecaps and so on. It is also called land water. The underground water refers to water deposited underground in the cranny and the hole of saturated rock soil and in the water-eroded cave.

**Total Water Resources** refers to total volume of water resources measured as run-off for surface water from rainfall and recharge for groundwater in a given area, excluding transit water.

**Surface Water Resources** refers to total renewable resources which exist in rivers, lakes, glaciers and other collectors from rainfall and are measured as run-off of rivers.

**Groundwater Resources** refers to replenishment of aquifers with rainfall and surface water.

**Inland Water Area** refers to water area of rivers, lakes, ponds, reservoir, etc.

**Ocean** is the general name for sea and ocean. Ocean refers to the main body of large salt water connected with the earth. Sea refers to the edge areas of the salt water on the earth that are comparted or surrounded by land, island, reef or peninsula.

**Marine Cultivable Areas** refer to water areas in beach, shallow sea and lough that are used to breed marine cash propagation, such as fish, shrimp, crab, shellfish, alga and so on.

**Runoff** refers to the water gathered at the way out of the cross section of drainage area either from the surface or underground after deducting the wastage of the precipitation on the land. Runoff can be divided into surface runoff, underground runoff and within soil runoff. Surface runoff refers to water flow to the rivers, lakes, swamps, and seas on the surface of the earth. Underground runoff refers to water flow to rivers, lakes, swamps, and seas through the water-bearing stratum of confined layer or unconfined layer.

**Volume of Runoff** refers to the total volume of water running through a certain cross section of a river during a certain period of time, reflecting the water resource condition in a country or a region. The formula for calculating volume or runoff is as follows:

Runoff = Precipitation - Evaporation

**Mineral Resources** refer to useful minerals that can be used for industrial or agricultural purposes enriched in lithosphere or on earth due to the geological process. Minerals are important natural resources, and important material base for social development.

**Ensured Mineral Reserves** refer to the actual mineral

reserves, which equal to the proven mineral reserves (including industrial reserves and prospective reserves) minus extracted parts and underground losses.

**Temperature** refers to the air temperature. China uses centigrade as the unit. The thermometry used for weather observation is put in a breezy shutter, which is 1.5 meters high from the ground. Therefore, the commonly used temperature refers to the temperature in the breezy shutter 1.5 meters away from the ground. The calculation method is as follows:

Monthly Average Temperature is the summation of average daily temperature of one month divided by the actual days of that particular month.

Annual Average Temperature is the summation of monthly average of a year divided by 12 months.

**Relative Humidity** refers to the ratio of actual water vapor pressure to the saturation water vapor density under the current temperature. The statistical method is the same as that of temperature.

**Volume of Precipitation** refers to the deepness of liquid state or solid state (thawed) water falling from the sky to the ground that has not been evaporated, infiltrated or run off. The calculation method is as follows:

Monthly precipitation is the summation of daily precipitation of a month.

Annual precipitation is the summation of 12 months precipitation of a year.

**Sunshine Hours** refer to the actual hours of sun irradiating the earth. The calculation method is the same as that of the precipitation.

**Industrial Waste Water Discharged** Refers to the volume of industrial waste water discharged through all of the drainage system to the outside of factory complex by enterprises during the report period. It includes discharged waste water from production, direct cooling water, waste gas treatment facilities, mine groundwater beyond the standard and domestic sewage mixed with industrial waste water, does not include independently discharged indirect cooling water (voicing split-less indirect cooling water should be taken into account).

**Urban Non industrial Waste Water Discharge** refers to annual discharge of non-industrial waste water by urban households. It is estimated by per capita coefficient using the formula:

$$\text{Urban non - industrial waste water discharge} = \frac{\text{urban non - industrial waste water discharge}}{\text{urban non - agricultural population}} \times 365$$

**Volume of Chemical Oxygen Demand (COD) Generated by Urban Non-industrial Waster Water** refers to chemical oxygen demand generated through the annual discharge of non-industrial waste water by urban households. It is estimated as:

$$\text{Volume of chemical oxygen demand (cod) generated by urban non - industrial waster water} = \frac{\text{Coefficient of COD generated through urban non - industrial waste water}}{\text{urban non - agricultural population}} \times 365$$

**Chemical Oxygen Demand (COD)** refers to index of water pollution measuring the mass concentration of oxygen consumed by the chemical breakdown of organic and inorganic matter.

**Industrial Waste Air Emission** refers to discharge into atmosphere of waste air containing pollutants generated from fuel burning and production process in enterprises within a given period of time. It is calculated at standard status (273K, 101325Pa) as:

$$\text{Industrial waste air emission} = \frac{\text{emission through fuel burning}}{\text{emission through production process}}$$

**SO<sub>2</sub> Emission** refers to the total volume of SO<sub>2</sub> discharged into air during the process of fuel combustion and industrial production in enterprises in a given time, and is mainly caused by the combustion of fossil fuel, ore smelting and the production of sulphuric acid and phosphate fertilizers.

**Nitrogen Oxides Emission** refers to the total volume of nitrogen oxides discharged into air during the process of fuel combustion and industrial production.

**Industrial Soot and Dust Emission** refers to volume of soot and dust in smoke emitted in process of fuel burning and industrial production in premises of enterprises in the report period. It is calculated by multiplying exhaust volume of dust removal system by dust concentration.

**Common Industrial Solid Wastes Produced** refers to the industrial solid wastes not listed in the 《National Catalogue of Hazardous Wastes》, or not regarded as hazardous according to the national hazardous waste identification standards (GB5085), solid waste-extraction procedure for leaching toxicity (GB5086), or solid waste-extraction procedure for leaching toxicity (GB/T 15555).

**Common Industrial Solid Wastes Comprehensively Utilized** refers to volume of solid wastes from which useful materials can be extracted or which can be converted into usable resources, energy or other materials by means of reclamation, processing, recycling and exchange (including utilizing in the year the stocks of industrial solid wastes of the previous year) during the report period, e.g. Examples of such utilization include fertilizers, building materials and road materials. The information shall be collected by the producing units of the wastes.

**Common industrial Solid Wastes Disposed** refers to the quantity of solid wastes which are burnt or specially disposed using other methods to alter the physical, chemical and biological properties and thus to reduce or eliminate hazards, or placed ultimately in the sites meeting the requirements for environmental protection during the report period.



**Stock of Common Industrial Solid Wastes** refers to the volume of solid wastes placed in special facilities or special sites by enterprises for purposes of utilization or disposal during the report period.

**Hazardous Wastes** refers to those included in the national hazardous wastes catalog or specified as any one of the following properties in the national hazardous wastes identification standards: explosive, ignitable, oxidizable, toxic, corrosive or liable to cause infectious diseases or lead to other dangers.

**Hazardous Wastes Produced** refers to the volume of actual hazardous wastes produced by surveyed samples throughout the year of the survey. Hazardous wastes refers to those included in the national hazardous wastes catalog or

specified as any one of the following properties in light of the national hazardous wastes identification standards and methods: explosive, ignitable, oxidizable, toxic, corrosive, or liable to cause infectious diseases or lead to other dangers.

**Hazardous Wastes Reused and Disposed** refers to the amount of hazardous wastes that are used to extract materials as raw materials or fuel over the year of the survey, and the amount of hazardous wastes which are incineration or specially disposed using other methods to change its physical, chemical, and biological properties to reduce or eliminate the hazards, or placed ultimately in the sites following the requirements for environmental protection over the year of the survey. It includes the hazardous wastes generated by the enterprise itself and received from other enterprises.