Catalogue of Industries Encouraged for Foreign Investment

I. Agriculture, Forestry, Animal Husbandry and Fishery Industries

1. Improvement of low-and medium-yielding fields
2. Planting, development and production of woody edible oil, flavorings and industrial raw materials
3. Non-pollution cultivation techniques of vegetables (including edible fungus and melon watermelon), dry and fresh fruit and tea, as well as serial development and production of these products
4. Development and production of sugar, fruit trees, vegetables, forage grass and the related new techniques
5. Production of flowers and plants, as well as construction and operation of nursery bases
6. Planting of rubber, sisal and coffee
7. Planting and cultivation of Chinese medicinal materials (limited to equity joint ventures and cooperative joint ventures)
8. Reusing in fields and comprehensive utilization of straws and stalks of crop, development and production of organic fertilizer resources
9. Planting of forest trees (bamboos), and fostering of fine varieties, new varieties of polyploid wood and new varieties of transgene wood
10. Breeding of aquatic fingerlings (not including special and precious quality varieties of our country)
11. Construction and operation of ecological environment protection projects such as tree and grass planting for prevention and control of desertification and soil erosion, etc.
12. Breeding of aquatic products, cage culture in deep water, large-scale aquaculture and breeding of ecotype marine species

II. Mining and Quarrying Industries

1. Exploration and exploitation of coal bed gas, as well as utilization of mine gas (limited to equity joint ventures and cooperative joint ventures)
2. Exploration and exploitation of oil and natural gas with venture capital (limited to equity joint ventures and cooperative joint ventures)
3. Exploitation of low-permeability hydrocarbon reservoirs (fields) (limited to equity joint ventures and cooperative joint ventures)
4. Development and application of new technologies that increase the recovery ration of crude oil (limited to equity joint ventures and cooperative joint ventures)
5. Development and application of new oil exploration and exploitation technologies such as geophysical exploration, well drilling, well logging, and downhole operation, etc. (limited to cooperative joint ventures)
6. Exploration and development of oil shale, oil sand, heavy oil, extra heavy oil and other unconventional crude oil resources (limited to cooperative joint ventures)
7. Exploration, mining and separation of iron mines and manganese mines
8. Development and application of new technologies improving the utilization rate of mine tailings, and the comprehensive application of technologies recovering the ecological environment in mines
9. Exploration and development of combustible ice in the sea (limited to cooperative joint ventures)

III. Manufacturing Industry

(I). Agricultural and nonstaple foodstuff processing industry
1. Development and production of biological, straw and aquatic feedstuff
2. Processing of aquatic products, cleansing and processing of seashell, development of seaweed functional food
3. Storage and processing of vegetables, dry and fresh fruits and fruit products and livestock and poultry products

(II). Food manufacturing industry
1. Development and production of food for baby, food for the old, and functional food
2. Development, production and processing of forest food
3. Production of natural food additives and ingredients (limited to equity joint ventures and cooperative joint ventures)

(III). Beverage manufacturing industry
1. Development and production of fruit and vegetable beverage, protein beverage, tea beverage, coffee beverage and plant beverage

(IV). Tobacco processing industry
1. Processing of cellulose diacetate and tobacco tows (limited to equity joint ventures and cooperative joint ventures)
2. Production of tobacco slices by the method of paper making (limited to equity joint ventures and cooperative joint ventures)
3. Processing and production of filter tips (limited to equity joint ventures and cooperative joint ventures)

(V). Textile industry
1. Manufacturing of special textile for industrial use with new and high tech
2. Weaving, dyeing and post-dressing of high-grade fabric surface material
3. Processing of products made of special natural fibre products (including animal fibre hair other than wool, and fibrilia, bamboo fibre, mulberry silk and color cotton, etc.) which satisfy the requirements on comprehensive utilization of ecological resource and requirements on environmental protection
4. Manufacturing of clothes with computer integrated manufacturing system
5. Manufacturing of top grade carpets, embroidering products and drawnwork products

(VI). Leather, fur, feather (hair) and related products
1. Processing of leather and fur with cleansing technology
2. Post ornament and processing of leather with new technologies
3. Processing of top grade leather (sofa leather and car cushion leather)

(VII). Lumber Processing, and Wood, Bamboo, Vine, Palm and Grass Products Manufacturing Industries
1. Development and production of new technology and new products for the comprehensive utilization of three forestry residuals (logging slash, bucking residual and processing residual) "sub-quality, small and firewood" lumber and bamboo

1. In forest-paper integrated construction, scale production of chemical wood pulp with a single production line of 300,000 tons/y or above and chemical mechanical wood pulp with a single production line of 100,000 tons/y or above as well as the high-class paper and paper boards produced simultaneously (limited to equity joint ventures and cooperative joint ventures)

(IX). Petroleum Processing and Coking Industry
1. Deep-processing of needle coke and coal tar

(X). Chemical Raw Material and Chemical Products Manufacturing Industry
1. Mass production of ethane with an annual production capacity of over 800 thousand tons (the Chinese party shall hold a relatively dominant position)
2. Processing and manufacturing of downstream ethylene products, and comprehensive utilization of ethane C5-C9 byproducts (excluding butadiene synthetic rubber)
3. Production of corvic with an annual output of 200,000 tons or more (ethene method)
4. Production of further processed products of bleaching powder (sodium method), polyvinyl chloride (PVC) and organosilicon
5. Production of Benzene, toluene, xylene, ethylene glycol and other basic organic chemical raw materials as well as their derivatives
7. Raw materials for synthetic fibre: production of extract terephthalic acid, caprolactam, nylon 66 salt and melt-spinning spandex resin
8. Synthetic rubber: production of liquor styrene butadiene rubber (SBR) (not including thermoplastic SBR), butyl rubber, isoprene rubber, polyurethane rubber,
acrylic acid rubber, chlorohydrine rubber, ethylene propylene rubber, nitrile butadiene rubber, fluorine rubber, silicon rubber and other special varieties of rubber

9. Engineering plastics and plastic alloys: production of polyphenylene oxide (PPO), engineering plastic nylon 11 and nylon 12, polyimides, polysulfone, aromatic polyester (PAR), and liquid crystalline polymer, etc.

10. Fine chemistry: production of catalysts, auxiliary agents, new additives, new technologies, process technologies for commercializing dyes and coloring agents, high-tech chemicals for electronic use and paper-making use, food additives, feedstuff additives, leather chemicals (excluding N-N dimethyl formamide), oilfield auxiliary agents, surface active agents, water treatment agents, adhesives, and inorganic fibre and nano materials, as well as the deep-processing of pigment envelope

11. Production of low hysteresis and high abrasion resistant carbon black

12. Production of environment-friendly printing ink and arene-oil

13. Production of natural spices, synthetic spices and single ion spices

14. Production of high-performance coatings, water-base coatings and assorted water resin

15. Production of substitute for hydro-chloro-fluoro-carbons (HCFC)

16. Production of organic fluorine chemical products (not including hydro-chloro-fluoro-carbons, hydro-chloro-fluoro-carbon and tetrafluoroethylene)

17. Production with fluorine resources recovered from phosphorus chemical industry and aluminium smelting industry

18. Production of large chemical products using coal as raw material (the Chinese party shall have a controlling interest)

19. Development and production of new forestry chemical technologies and products

20. Production of ionic membrane for caustic soda, non-organic separation membrane and functional membrane

21. Development and production of inorganic, organic and biological membranes used for environment protection

22. Development and production of new fertilizers: bio-fertilizer, high-concentration potassic fertilizer, compound fertilizer, controlled release fertilizer, compound microbial inoculant, compound microbial manure, straw and garbage rotten agents and special-function microbiological preparations

23. Development and production of highly-efficient and safe new varieties of pesticides as well as high-performance new agents of pesticides

24. Development and production of biological pesticides and products for biological control: microbial pesticide, microbial germicide, agricultural antibiotic, insect pheromone, natural enemy insects and microbial herbicide

25. Comprehensive utilization, treatment and disposal of waste gas, liquid and residue

26. Production of organic high molecular materials: vessel body coatings made from modified organosilicon, plane covering coatings, rare earth cerium sulphide red
dye, lead-free electronic packaging materials, photolithography paste of the series specially used for color plasma display screen, superfine fibre with a small diameter and a big specific surface area, high-precision fuel filter paper, lithium ionization cell diaphragm, multi-function compound auxiliary agents for plastic processing, citric acid glycerin ester, fludioxonil and cyazofamid

(XI). Medical and Pharmaceutical Products Manufacturing Industry
1. Production of new types of compound medicines or medicines with active ingredients (including pharmaceutical products and preparations)
2. Amino acid: production of serine, tryptophan, histidine, and methionine used for feedstuff, etc.
3. Production of new types of anti-carcinogens, cardio-vascular and cerebrovascular medicines and nervous system medicines
4. Production of new, effective and economical contraceptive medicines and devices
5. Production of new medicines which are produced with biological engineering technologies
6. Production of heterocycle fluorides and other fluorine-containing high physiologically active drugs and intermediate
7. Production of gene engineering vaccines (AIDS vaccine, HBV vaccine and contraception vaccine)
8. Production of biological vaccines
9. Production of BCG vaccine and poliomyelitis vaccine
10. Development and production of marine medicines
11. Pharmaceutical preparations: production of new forms of drugs and new products prepared with slowed release, controlled release, target preparation, percutaneous absorption and other new technologies
12. Development and production of new types of pharmaceutic adjuvants
13. Production of biomedical materials and products (excluding those processed from human bodies and the specimens, as well as human organs, tissues and the specimens)
14. Production of antibiotic material medicals used for animals (including antibiotic and chemical synthesis)
15. Development and production of new products or new forms of antibacterial, anthelmintic, insecticide, anti-coccidiosis medicines used for animals
16. Production of new types of diagnosis reagents

(XII). Chemical Fiber Manufacturing Industry
1. High-tech chemical fibre production of differential chemical fibre, aramid fibre, carbon fibre, ultrahigh strength high-modulus polyethylene and polyphenylene sulfide (PPS), etc.
2. Production of environment-friendly chemical fibre such as cellulose fiber by new solvent way, etc.
3. Production of new types of polyester for fibre use and non-fibre use: polytrimethylene terephthalate (PTT), polyethylene glycol (PEN), and polybutylene terephthalate (PBT)
4. Production of new types of fibrous materials with renewable resources and biomass engineering technologies: polylactic acid (PLA) fibre, and polyatomic alcohol (PDO) fibre by biological methods
5. Production of polyamide with the single line daily output of 100 tons or more
6. Production of aramid fibre used for radial tyres, and cord yarn

(XIII). Plastics Manufacturing Industry
2. Clearing up and reutilization of plastic waste
3. Development of new plastic soft packing technologies, and production of new plastic soft packing products (high-obstructive and multi-functional film and raw materials)

(XIV). Nonmetallic Mineral Products Manufacturing Industry
2. Production of energy-saving and high-efficient chemical building materials by replacing steel and wood with plastic
3. Production of elastic and plastic modified bitumen waterproof rolls with an annual output of 10 million square meters, quality ethylene propylene terpolymer waterproof rolls whose width is 2m or above and the matching materials, durable PVC rolls and TPO waterproof rolls
4. Production of glass shielding electromagnetic wave, glass basal plate for microelectronic use, heat-transmitting lead-free glass, diffuser of large quarts glass of electronic grade, super 2G and 3G microchannel plate, optical fiber panel, image inverter and glass light cone
5. Production of glass fibre (through direct-melt process) and glass steel works with an annual output of 50,000 tons and above
6. Production of continuous glass fiber strand mats, glass fiber surface mats, glass fiber cloth and mats for microelectronic use
7. Production of optical fiber for image bundles and laser medical treatment
8. Production of sanitary porcelain with an annual production of one million pieces or more
9. Standard polishing of pottery raw materials and production of high-class decorating materials used for pottery
10. Production of cement kiln, high-class (electronic) glass, ceramics, glass fiber, micropore carbon brick and other high-class refractory materials in kiln and calciner

11. Production of ceramic vehicles, aluminium nitride ceramic substrate and porous ceramics used for automobile catalyzing device

12. Production of non-organic and non-metal materials and products: artificial crystal, carbon-carbon composite materials, special-purpose ceramics, special-purpose sealing material, high-speed oil seal materials, special-purpose binding material, special-purpose emulsion materials, underwater sound absorbent rubber products, normal temperature thermal conductivity, and thermal insulation of 0.025W/Mk or below

13. Production of high-tech composite materials: Production of high-tech composite materials: continuous fiber reinforcement thermoplastic composite materials and prepreg materials, auxiliary materials for forming resin-base composite materials resisting temperature of 300°C or above, vane of resin-base composite materials, high-class sports goods made of resin-base composite materials, special-performance glass reinforced plastic pipe (pressure > 1.2 MPa), special-function composite materials and products, deep-water and phreatic-water composite material products, composite material products for medical and recovery use, carbon-carbon composite materials and brake sheet, high-performance ceramic-base composite materials and products, metal-base composite materials and products, metal multilayered composite materials and products, ultra high pressure composite pipes (pressure ≥320MPa), and large passenger aircraft tyres

14. Production of raw materials for precise and high-performance ceramics and functional ceramics: ultrafine silicon carbide powder (purity > 99%, mean diameter < 1µm), ultrafine silicon nitride powder (purity > 99%, mean diameter < 1µm), high-purity ultrafine alumina powder (purity > 99%, mean diameter < 0.5 µm), low-temperature sintering zirconia powder (sintering temperature < 1350 °C), high-purity aluminium nitride powder (purity > 99%, mean diameter < 1µm), rutile titania powder (purity > 98.5%), silica hydrated white carbon black (particle diameter < 100nm) and barium titanate ((purity > 99%, mean diameter < 1µm)

15. Manufacturing of diamond film tools, and ultra-thin synthetic diamond saw blade with a thickness of 0.3mm or below

16. Intensive processing of non-metal mineral products (ultra-fine grinding, high purifying, high refining and modifying)

17. Production of ultra-high power graphite electrode

18. Production of pearl luster mica (diameter of 3-150µm)


20. Treating combustible industrial wastes and domestic garbage with new dry-process or harmless treatment cement kiln
(XV) Nonferrous Metals Smelting and Pressing Industry
1. Production of silicon single-crystal, polished slice and multicrystal silicon with diameter of 200mm or above
2. Production of new and high-tech non ferrous materials: new-type high-performance hydrogen storage materials, lithium ionization battery electrode materials, compound semiconductor materials (gallium arsenide, gallium phosphide, indium phosphide, gallium nitride), high-temperature superconducting materials, memory alloy materials (nickel titanium, copper-base and iron-base memory alloy materials), ultra-fine (nano) calcium carbide and ultrafine (nano) crystal hard alloy, ultra-hard compound materials, noble metal compound materials, aluminum foil for radiator, middle and high-pressure cathode capacitance aluminium foil, special-type large aluminium alloy section steel, precise aluminium alloy die forging, overhead conductor for electrified railway lines, ultra-thin copper straps, copper alloy materials for corrosion-resistant heat exchanger, high-performance copper-nickel and copper-iron alloy straps, materials for processing beryllium copper straps, lines, pipes and rods, high-temperature-resistant and anti-senescence tungsten filament, magnesium alloy casting, lead-free solder, magnesium alloy and products applying it, foam aluminium, titanium alloy belt material and titanium welded pipe, sponge zirconium at atomic energy level, and products from deep-processing of tungsten and molybdenum

(XVI) Metal Product Manufacturing Industry
1. Manufacturing of light-weight and environment-friendly materials for automobiles and motor-vehicles (aluminum sheet for car body, aluminium magnesium alloy materials, and motorcycle aluminium alloy frame, etc.)
2. Development and production of architectural hardware, plumbing equipment and auxiliary hardware parts.
3. Manufacturing and processing (including the printing and coating of the inside and outside wall) of metal packing materials for packaging various kinds of oil and foodstuffs, fruit and vegetables, drinks and chemical products for daily use, etc. (the thickness of which shall be 0.3mm or below)

(XVII) General Machinery Manufacturing Industry
1. Manufacturing of high-class digital control machine tool and key components: 5-axis CNC machine tool, CNC coordinate milling centers, CNC coordinate grinding machine, 5-axis CNC system and servo mechanism, and high-speed ultra-hard cutting tool used for precise numerically controlled processing
2. Manufacturing of multi-station shingling forming machine of 1000 tons or above
3. Manufacturing of equipment for dismantling and crushing automobiles discarded as useless
4. Manufacturing of FTL flexibility production line
5. Manufacturing of vertical multiple joint robots, welding robots and welding apparatus and equipment
6. Manufacturing of special-type processing machines: complete sets of laser cutting and welding equipment, laser precision machining equipment, numerically controlled low-speed HS-WEDM machine, and sub-micron superfine disintegrator
7. Manufacturing of wheeled/crawler lifting machinery of 300 tons or above (limited to equity joint ventures and cooperative joint ventures)
8. Design and manufacturing of through-shaft high-voltage plunger pump under pressure (35-42MPa) and its motor, and low-speed large torque motor under pressure (35-42MPa)
9. Manufacturing of servoelements under electronic-hydraulic proportion control
10. Design and manufacturing of integrate multiple-way valves under pressure (21-31.5MPa), pneumatic electromagnetic valves with a power of 0.35W or below and high-frequency electricity-controlled gas valves of 200Hz or above
11. Design and manufacturing of hydrostatic fluid-pressure drive units
12. Development and manufacturing of non-contact gas blanket sealing under pressure of 10MPa and dry gas sealing under pressure of 10MPa (including experimental facilities)
13. Development and manufacturing of equipment with high molecular materials for cars (friction plate, remodeled phenolic aldehyde piston and nonmetal fluid pressure master and slave pumps, etc.)
14. Manufacturing of car boss axletree of 3 and 4 generation (function elements of boss axletree of flange and transducer inside or outside of the axletree), digital control machine tool or processing centre axletree of high or mid class (the processing center should have more than three axis interlocking function and 3-4μm repeated precision), high-speed wire or board rolling mill axletree (assistant axletree and roller axletree of single-wire rolling mill of more than 120m/s and of thin-board rolling mill of more than 2mm), high-speed railway axletree (with speed of more than 200km/h), low-noise axletree of vibration of less than Z4 (Z4, Z4P, V4, V4P), level P4, P2 axletree of various axletree
15. Manufacturing of high-temperature resistant insulation materials (with F, H insulation class) and moulded insulation products
16. Development and manufacturing of rubber and plastic sealing parts for hydropneumatic use
17. Manufacturing of high-strength fasteners with the strength level of 12.9 or above
18. Manufacturing of casted and forged semifinished products for cars and motorcycles
19. Remanufacturing of machine tool, automobile components (excluding the five big assembly) and engineering machine

(XVIII) Special-Purpose Equipment Manufacturing Industry
1. Manufacture of trackless equipment for mining, loading and transporting in mines: 100-ton+ mechanical-driven dump trucks for mining, mobile crushers, 3, 000 cu.m/h+r bucket excavator, 5 cu.m+ mining loaders and 2000 kw+ electricity-dragged coal mining machine, etc.
2. Manufacturing of equipment for geophysical prospecting and well logging: MEME seismometer, digital telemetric seismic instrument, digital imaging system, digital control well logging system, horizontal well logging equipment, directional well logging equipment, drilling machine, and MWD logging-while-drilling tool

3. Manufacturing of oil prospecting, well drilling and gathering and transportation facilities: floating drilling system and floating production system with a working depth of water of 500m or above, seafloor oil extraction and gathering and transportation equipment with a working depth of water of 600m or above, deep sea oil rig with a winch power of 3000kw or above, a top driving force of 850kw or above and a power of drilling pump of 1800kw or above, land oil rig and desert oil rig with a welldrilling depth of 9000m or above, 80-ton+ piston-forced reciprocating compressor used for oil refining installations with an output of 10 million tons per year, digital control deep oil well logger, and oil hole fastener with mud

4. Design and manufacturing of shield machine system integration with a diameter of 6m or above, design and manufacturing of full-face hard rock tunnel boring machine system integration with a diameter of 5m or above, manufacturing of large-caliber rotary drilling rig with a caliber of 1m or above and a depth of 30m or above, design and manufacturing of push bench with a diameter of 1.2m or above, manufacturing of complete sets of large equipment for laying underground utility without digging with a back dragging force of 200 tons or above, manufacturing of underground diaphragm wall construction drilling rig, and manufacturing of automatic vertical well drilling system

5. Design and manufacturing of large sideboom of 100 tons or above and large trencher of 320 horse power or above

6. Design and manufacturing of crawler bulldozer with a soil pressure of 0.03MPa or below and a power of 220 horse power or above and large bulldozer of 520 horse power or above

7. Design and manufacturing of cleaner with a specification of 100 cn.mts/h or above and dredging device for dredger of 1000 tons or above

8. Design and manufacturing of construction equipment for concrete diaphragm wall used for flood prevention dams

9. Manufacturing of underwater civil work construction machinery: bulldozer, loader and excavator used 9m underwater

10. Manufacturing of equipment for maintenance of highways and bridges as well as automatic checkout equipment

11. Manufacturing of equipment for highway tunnel monitoring, aeration, disaster-prevention and rescuing system

12. Design and manufacturing of equipment for large railway construction, maintenance and operation safety

13. Manufacturing of equipment for building roofs with linoleum tile (bitumen), galvanized steel or other metals
14. Manufacturing of equipment for environment-friendly, energy-saving, water-proof and heat-preservation system with polyurethanes sprayed on-the-spot, equipment with technology for preparing polyurethane sealant, equipment with technology for preparing silicone modified sealant
15. Design and manufacturing of thin-slab caster and high-precision strip mill (thickness of 10 micron)
16. Manufacturing of equipment for directly reduction and smelting reduction of iron
17. Manufacturing of heavy-power direct current electric arc furnace with a power of 50 tons or above
18. Manufacturing of equipment for color coating of board plates
19. Manufacturing of cradling equipment for metal minerals which are multi-elements, fine-particle and are difficult to separate
20. Manufacturing of key equipment for the complete sets of ethylene equipment with an annual output of 800,000 tons or above: cracking gas, ethylene and propylene centrifugal compressors, mixed pelletizers with an annual processing capacity of 100,000 tons or above, centrifuges with a diameter of 800mm or above, high-temperature, high-pressure and corrosion-resistant pumps and valves with a working temperature of 250°C or above and a working pressure of 15Mpa, and low-temperature and ultra-low-temperature pumps of 55°C or below (limited to equity joint ventures and cooperative joint ventures)
21. Manufacturing of complete sets of large equipment coal chemical industry (limited to equity joint ventures and cooperative joint ventures)
22. Design, manufacturing and repairing of metal product moulds (such as extrusion die for pipes, rods and section steel made of copper, aluminum, titanium and zirconium)
23. Design and manufacturing of punching die for car body covers as well as (testing) fixtures for automobiles and motorcycles
24. Design and manufacturing of punching die with a precision of 0.02mm or above, cavity die with a precision of 0.05mm or above, and standardized die parts
25. Design and manufacturing of non-metal product moulds
26. Manufacturing of bear-bottling equipment with a speed of 60,000 bottles/h or above, drink-bottling equipment at an intermediate or high temperature with a speed of 50,000 bottles/h or above, and sterile bottling equipment with a speed of 36,000 bottles/h
27. Development of technique for producing amino acids, enzyme preparations and food additives, and manufacturing of key instruments
28. Manufacturing of complete sets of feedstuff processing equipment at 10 tons/h or above as well as the key parts
29. Manufacturing of equipment for producing lightweight corrugated board and carton whose corrugation height is 0.75mm or below
30. Manufacturing of bisect sheet-fed multi-color lithographic press whose pressing speed is above 16,000 bisect sheets/h (720×1020mm), bisect sheet-fed perfect multi-color lithographic press whose pressing speed is above 13,000 bisect
sheets/h (720×1020mm) and full sheet-fed multi-color lithographic press whose pressing speed is above 13,000 bisect sheets/h (1000×1400mm)

31. Manufacturing of single-width single-paper path web-fed lithographic press whose pressing speed is above 75,000 bisect sheets/h (787×880mm), double-width single-paper path web-fed lithographic press whose pressing speed is above 17,000 bisect sheets/h (787×880mm) and commercial web-fed lithographic press whose pressing speed is above 50,000 bisect sheets/h (787×880mm)

32. Manufacturing of multi-color flexo printing press whose speed is 300m/minute and whose width is 1000mm or above

33. Manufacturing of computer mass color pre-coordination systems, mass color remote control equipment, water-ink speed tracking equipment, automatic printing quality detecting and tracking system, non-shaft line technology, high-speed automatic paster/feeder whose speed is 75,000 sheets/h, high-speed folding machine which may automatically adjust through remote control, automatic overprinting system, cooling device, silicon-adding system, and deviation-adjusting device, etc.

34. Manufacturing of equipment with sheet glass deep-processing technology

35. Manufacturing of high-tech involved special industrial sewing machines

36. Manufacturing of complete sets of new-type paper (including pulp) making machines

37. Manufacturing of equipment with new technique for post ornament and processing of leather

38. Development and manufacturing of new agricultural product processing and storing equipment: new equipment for the processing, storage, preserving, grading, package and drying of foodstuff, oil plants, vegetables, fresh and dry fruits, meat products and aquatic products, etc.; agricultural product quality inspection instruments and equipment; inspection instruments and equipment for ensuring agro-product quality be undamaged; rheometer; farinograph; ultramicro crushing apparatus; high-efficiency dehydrating facility; high-efficiency fruit juice condensation equipment with benefit, efficacy, outcome, efficiency and effects; powder food material sterilization facility; solid and semi-solid food aseptically packaging facility; packaging materials for aseptic package; direct vat set for producing dairy products; and disk-type centrifugal separator

39. Manufacturing of agricultural machine: agricultural facilities and equipment (automatic irrigation equipment for greenhouses, equipment for the automatic disposition and fertilization of nutrient solution, high-efficiency vegetable raise seedling equipment and soil nutrient analysis apparatus), tractor with an engine power of 120kw or above and the matching agricultural implements, diesel engine with low gas consumption, low noise and low emission, sprayer which is accessory to big tractor and with the device for retrieving grain residues, high-performance rice transplanter, cotton picking machine and cotton picking platform, and self-propelled corn combine which fits various row spacing (fluid pressure drive or mechanical drive)
40. Manufacturing of forestry machinery and equipment with new technology
41. Manufacturing of equipment for reusing crop straw in field and for the comprehensive utilization of crop straw and rice hull
42. Manufacturing of equipment for the comprehensive utilization of agricultural waste and waste from scale breeding of livestock and poultry
43. Manufacturing of agricultural technological equipment which saves fertilizer, pesticide and water
44. Manufacturing of cleaning equipment for electro-mechanical wells and production of medicines
45. Manufacturing of electronic endoscope
46. Manufacturing of non-mydriatic retinal camera
47. Manufacturing of the key components of development device for medical use (high-field-strength superconducting magnetic resonance MRI, CT, X-ray computerized tomography and B ultrasound, etc.)
48. Manufacturing of ultrasonic transducer (3D) for medical use
49. Manufacturing of equipment for boron neutron capture therapy
50. Manufacturing of X-ray special orientation radiotherapy system
51. Manufacturing of haemodialysis machine and hemofiltration machine
52. Manufacturing of equipment for automatic enzyme exempts analysis system (including functions such as sample adding, enzyme labeling, wall washing, incubating and post processing of data, etc.)
53. Development of new drug quality control technology, and manufacturing of new drug quality control equipment
54. Development and manufacturing of new technology and equipment for analyzing and extracting efficacious substance in traditional Chinese drugs
55. Manufacturing of new-type drug packaging materials and contrainers as well as advanced drug manufacturing equipment
56. Development and manufacturing of new-type textile machinery, key components, and textile testing and laboratory apparatus
57. Manufacturing of intelligent jacquard artificial fur equipment
58. Manufacturing of equipment specially for producing solar cells
59. Development and manufacturing of equipment for pollution prevention and control
60. Manufacturing of equipment for the treatment of municipal wastes and the comprehensive utilization of rural organic wastes
61. Manufacturing of equipment for the recovery processing and reutilization of plastic waste as well as old and useless electric appliance, rubber and battery
62. Manufacturing of equipment with aquatic ecosystem protection technology
63. Development and manufacturing of complete sets of sea water desalination, recirculating and cooling equipment with daily output of 100,000 cubic meters or above
64. Manufacturing of special-type meteorological observation and analysis equipment
65. Development of seismic station/network system and mobile seismologic observation technology system, and manufacturing of corresponding apparatus and equipment
66. Manufacturing of radial tyre building machine with three or more drums
67. Manufacturing of rolling resistance tester and tyre noise laboratory
68. Manufacturing of new-tech heat supply, measuring and temperature control devices
69. Manufacturing of hydrogen energy preparing, warehousing and transportation facilities as well as inspection system
70. Manufacturing of new-type heavy residual oil gasification and atomizing nozzle, high-efficient steam trap valve whose steam loss rate is 0.5% or below, and high temperature ceramic heat exchanger whose temperature is 1000℃ or above
71. Manufacturing of devices for the comprehensive utilization of old and useless tyres

(XIX) Transportation and Communication Facility Manufacturing Industry
1. Manufacturing of complete automobiles (the proportion of foreign capital shall not exceed 50%), and construction of automobile research and development institutions
2. Manufacture of automobile engines, and construction of engine regeneration and r&d institutions: gasoline engines whose volume power is 50kw or above, diesel engines whose volume power is 40kw or above and whose displacement is 3L or below, diesel engine whose volume power is 30kw or above and whose displacement is 3L or above and engines with new energy resources such as fuel cells and mixed fuels
3. Manufacturing of key automobile components and parts and research and development of key technologies: disk brake assembly, drive axle assembly, automatic gear box, diesel engine fuel pump, engine air-intake supercharger, viscous junction box (for four-wheel drive), fluid pressure tappets, electronic integrating instrument, crankshafts and connecting links for vehicles (diesel engine of 8L or above), anti-lock brake system (ABS, ECU, valve body and sensor), electronic stability program (ESP), brake-by-wire system, electronic brake force distribution system (EBD), tractive force control system, gas generator for automobile safety air-bag, diesel electronic spraying system, common rail fuel spraying technology (the maximum spraying pressure >1600p), variable geometry turbocharging technology (VGT), variable nozzle turbocharging technology (VNT), discharge control device for engines reaching stage-IV pollutant discharge standards of China, intelligent torsion management system, coupler assembly, steer-by-wire system, diesel engine grain catcher, intelligent cylinder and special-type rubber accessories for automobile
4. Manufacturing and research & development of automobile electronic installations: electronic engine and chassis control system and the key components, vehicle electronic technology (automobile information system and navigation system), electronic bus network technology (limited to equity joint ventures), electronic
control system input (sensor and sampling system) and output (actuator) blocks, electronic controller for electric power steering system (limited to equity joint ventures), embedded electronic integrating system (limited to equity joint ventures and cooperative joint ventures), electronically controlled air spring, electronically controlled suspension system, electronic valve system installations, electronic gun, battery (nickel-hydrogen and lithium-ion) and the control system (limited to equity joint ventures), integrated electric machine and control system (limited to equity joint ventures), wheel hub electric machine, multi-functional controller (limited to equity joint ventures), fuel cell stack and the components, hydrogen storage system for automobiles, and testing system for testing and maintaining automobiles and motorcycles

5. Manufacturing of motorcycle key parts: parts with electronically controlled fuel injection technology (limited to equity joint ventures and cooperative joint ventures), and emission control device for engines which have reached stage-III pollutant discharge standards of China for motorcycles

6. Manufacturing of track transport and communication facilities (limited to equity joint ventures and cooperative joint ventures): research & development, design and manufacturing of vehicles and key parts (traction/drive system, control system and brake system) for high-speed railway, special lines for railway transport of passengers, intercity railway, trunk railway and urban track transport and communication facilities; research & development, design and manufacturing of facilities and equipment for high-speed railway, special lines for railway transport of passengers, intercity railway and urban track transport and communication services; design and research & development of information systems concerned in informatization construction; research & development, design and manufacturing of track and bridge facilities for high-speed railway, special lines for railway transport of passengers and intercity railway; research & development, design and manufacturing of track transport and communication signal system; manufacturing of electrified railway equipment and apparatus; research & development of railway noise and vibration control techniques; manufacturing of the blowdown of railroad cars; and manufacturing of railway transport safety monitoring equipment

7. Design, manufacturing and maintenance of civil aircrafts: aircrafts of trunk lines and branch lines (the Chinese party shall have a controlling interest), and utility aircrafts (limited to equity joint ventures and cooperative joint ventures)

8. Manufacturing and maintenance of civil aircraft components and parts

9. Design and manufacturing of civil helicopters: 3 ton or above (the Chinese party shall have a controlling interest), and below 3 ton (limited to equity joint ventures and cooperative joint ventures)

10. Manufacturing of civil helicopter components and parts

11. Manufacturing of ground-effect and water-effect aircrafts (the Chinese party shall have a controlling interest)

12. Design and manufacturing of unmanned aircrafts and floating platform (the Chinese party shall have a controlling interest)
13. Design, manufacturing and maintenance of aircraft engine and components as well as aerial power system (limited to equity joint ventures and cooperative joint ventures)
14. Design and manufacturing of civil aircraft equipment (limited to equity joint ventures and cooperative joint ventures)
15. Design and manufacturing of civil carrier rocket (the Chinese party shall have a controlling interest)
16. Manufacturing of ground equipment for aerial use: civil aerodrome facilities, civil aerodrome operation guarantee facilities, ground equipment for experimental flight, flight simulation and training equipment, aerial testing and measuring instrument, land trial equipment, aircraft equipment integral test system, aerial-purpose equipment, equipment specially for the trial manufacturing of aerial materials, civil aircraft ground reception and application apparatus, carrier rocket ground checkout equipment, carrier rocket mechanics and environment laboratory equipment
17. Manufacturing of light, machinery and electronic products and temperature control products for spacecrafts, planet product testing device, and spacecraft structure and setup products
18. Manufacturing of light gas turbine
19. Design of new and high tech vessels and oceaneering equipment (limited to equity joint ventures and cooperative joint ventures)
20. Repair, design and manufacturing of vessels (including sections) and oceaneering equipment (the Chinese party shall have a controlling interest)
21. Design of low, medium and high speed diesel engines of vessels (limited to equity joint ventures and cooperative joint ventures)
22. Design and manufacturing of components and parts of diesel engines of vessels (limited to equity joint ventures and cooperative joint ventures)
23. Design and manufacturing of low and medium speed diesel engines as well as crankshafts of vessels (the Chinese party shall have a controlling interest)
24. Design and manufacturing of hatch machinery and deck machinery (the Chinese party shall be in a relatively dominant position)
25. Design and manufacturing of vessel communication and navigation equipment: vessel communication system equipment, vessel electronic guidance equipment, radar for vessel use, electric gyrocompass automatic pilot and internal broadcasting system, etc.
26. Design and manufacturing of ocean fishing vessels and yachts (limited to equity joint ventures and cooperative joint ventures)

(XX) Electric Machine and Equipment Manufacturing Industry
1. Manufacturing of key equipment used for 600,000 kw super-critical and 1 million kw ultra-super-critical thermal power plants (limited to equity joint ventures and cooperative joint ventures): boiler feed pump, circulating pump, and main stram loop high-temperature and high-pressure valves with the operating temperature of 400°C or above and the working pressure of 20Mpa or above
2. Manufacturing of key equipment for nuclear power plants of millions kw (limited to equity joint ventures and cooperative joint ventures): pump and valve of nuclear level I and II
3. Manufacturing of devulcanization equipment, denitration equipment and bag dust collector used in thermal power plants
4. Design and manufacturing of encapsulations for nuclear power equipment and thermal power equipment
5. Manufacturing of large casting and forging for nuclear power equipment
6. Manufacturing of electric transmission and transformation equipment (limited to equity joint ventures and cooperative joint ventures): amorphous alloy transformer, large sleeve for high-voltage electric appliance of 500kv or above, operating gear and independent arcing contact for high-voltage switch, dry-type reactor for direct current transmission, high-power crystal valve pipe for 6-inch direct current converter valve, contact materials for electric appliance which satisfy EU RoHS, and Pb/Cd-free solder
7. Manufacturing of complete sets of equipment or key equipment for generating electricity with new energy resources (limited to equity joint ventures and cooperative joint ventures): light solar, geoheat, tide, wave, waste, biogas, wind force of 1.5 megawatts or above
8. Manufacturing of Stirling generating set
9. Development and manufacturing of linear motor and the driving system
10. Manufacturing of solar-powered air conditioning, heating system and solar drying device
11. Manufacturing of biomass drying pyrolysis system and biomass gasification device
12. Manufacturing of draw gear for alternating current frequency and pressure modulation
13. Manufacturing of intelligent molded case circuit breaker (voltage: 380V, electric current: 1000A), intelligent cabinet or drawer circuit breaker used for large-scale engineering works, and complete sets of intelligent electricity control and distribution equipment with bus wire

(XXI) Communication Equipment, Computer and other Electronic Equipment Manufacturing Industries
1. Manufacturing of digital video camera, digital audio player and digital movie-making, editing and playing equipment
2. Manufacturing of TFT-LCD, PDP, OLED, FED (including SED, etc.) panel display screen and materials for making display screen
3. Manufacturing of such key parts as optical engine, light source, projection screen, high-resolution projection tube and LCOS module used for large-screen multicolor projection displays
4. Manufacturing of digital audio and video coding and decoding equipment, digital equipment for broadcast and television studio, digital equipment for cable TV system, digital transmission equipment for audio broadcasting, digital TV
up-and-down converter, equipment for digital TV ground broadcasting single frequency network (SFN), equipment for satellite digital TV uplink station, and headend equipment for satellite master antenna TV (SMATV)

5. Manufacturing of high-performance digital single lens reflex with 6 million pixel or more

6. Design of integrated circuit, manufacturing of large-scale digital integrated circuit with a line width of 0.18 micron or below, manufacturing of simulation or analog integrated circuit with a line width of 0.8 micron or below, as well as BGA, PGA, CSP and MCM encapsulation and testing

7. Manufacturing of large and medium-sized electronic computers, gigantic computers, portable microcomputers and high-class servers which execute one thousand billion or more instructions per second, large-scale analog simulation system, and large-scale industrial computers and controllers

8. Manufacturing of computer digital signal processing system and boards

9. Manufacturing of graphic and image recognition and processing system

10. Development and manufacture of high-capacity optical and disk drives as well as their parts

11. Manufacturing of high-speed memory system with a capacity of 100TB or above as well as intelligent memory device

12. Manufacturing of large-breadth (900mm or above) and high-resolution color printing device, head of high-resolution color printers with the precision of 2400dpi or above, and large-breadth (900mm or above) and high-resolution color copying device

13. Manufacturing of computer-aided design (three-dimensional CAD) system, computer-aided testing (CAT) system, computer-aided manufacturing (CAM) system and computer-aided engineering (CAE) system and other computer application systems

14. Development and manufacturing of software products

15. Development and manufacturing of materials exclusively for electronic use (excluding the development and manufacturing of optical fibre perform)

16. Manufacturing of equipment, testing apparatus, and industrial moulds exclusively for electronic use

17. Manufacturing of new-type electronic parts and components: chip components, sensitive components and sensors, frequency control and selection components, hybrid integrated circuits, power electronic device, photoelectric device, new-type electromechanical components, high-density interconnecting lamination boards, multilayer flexibility boards, rigid- flex printing circuit board and package substrate

18. Manufacturing of high-tech green cell: Ni-MH cell, nickel-zinc cell, silver-zinc cell, lithium-ionization cell, high-volume, complete-sealed and maintenance-free lead-acid accumulator, solar cell, fuel cell and column zinc-air cell, etc.

19. Manufacturing of high-brightness light-emitting diode (LED) with the luminous efficiency of 501m/W or above, bluelight extension chip of LED with the
luminous efficiency of 501m/W, and white luminotron with the luminous efficiency of 501m/W or above and the power of 200mW or above

20. Development and manufacturing of RFID chips
21. Development and production of key parts of high-density digital disk drive
22. Duplication of CD-ROM and production of CD-R
23. Design and Manufacturing of civil satellites (the Chinese party shall have a controlling interest)
24. Manufacturing of civil satellite payload (the Chinese party shall have a controlling interest)
25. Manufacturing of parts and components for civil satellites
26. Manufacturing of equipment for satellite communication system
27. Manufacturing of satellite navigation receiving equipment and the key parts
28. Manufacturing of optical communication measuring instrument, and optical transceiver with the speed of 10Gb/s or above
29. Manufacturing of ultra-wide band (UWB) communication equipment
30. Manufacturing of wireless local area network (wide area network) equipment
31. Manufacturing of optical cross connect (OXC) equipment, automatic switched optical network (ASON) equipment, transmission equipment for optical fiber communication at 40G/sSDH or above, and coarse wavelength division multiplexing (CWDM) equipment
32. Manufacturing of asynchronous transfer mode (ATM) and IP data communication system
33. Development and manufacturing of 3G and follow-up mobile communication handsets, base stations, core network devices and network testing apparatus
34. Development and manufacturing of high-end routers and network exchangers of 1 kilomega gigabit or above
35. Manufacturing of equipment for air traffic control system (limited to equity joint ventures and cooperative joint ventures)

(XXII) Manufacturing Industries of Instruments and Meters, and Machinery for Cultural and Office Use

1. Manufacturing of field bus control system and the key components
2. Development and manufacturing of large-scale precision instruments: including electron microscope, laser scanning microscope, scanning tunnel microscope, laser with power of 2kw, electronic probe, photoelectric direct reading spectrometer, Raman spectrometer, mass spectrograph, liquid phase chromatograph, industrial chromatograph, chromatograph mass spectrometer, NMR spectrometer, energy spectrometer, X-ray fluorescence spectrometer, diffractometer, industrial CT, large dynamic balancing testing machine, automatic detecting system of on-line mechanical quantity, ultra high speed centrifuge at the rotating rate of 100000r/min, large metallurgical microscope, three-coordinate measuring machine, laser comparator, electrical prospecting instrument, airborne electrical prospecting and γ energy spectrometer at 500m or above, borehole gravity and three-component magnetometer, high-density microgal gravity and
aerial gravity gradient measuring apparatus, on-field express analysis device for geochemical elements, and portable geological radar

3. Manufacturing of high-precision digital voltmeter and ammeter (with a span of 7½ or above)
4. Manufacturing of reactive power autocompensation installation
5. Manufacturing of two-phase flowmeter and solid flowmeter
6. Manufacturing of automatic coating machine for electron gun
7. Manufacturing of industrial X-ray detectoscope
8. Manufacturing of safe production and environmental protection testing instruments
9. Manufacturing of VXI bus automatic testing system (satisfying IEEE1155 international standards)
10. Development and manufacturing of coal mine underground monitoring and hazard forecasting system as well as coal safety testing management system
11. Manufacturing of equipment for engineering survey and geophysical observation: digital triangulation system, numerically controlled three-dimension relief model molding system (area > 1000×1000mm, horizontal error < 1mm, vertical error < 0.5mm, ultra-wide band seismometer φ < 5cm, frequency band of 0.01-50Hz, and equivalent moving speed noise < 10-9m/s), seismic data integrated processing system, integrated underground seis and precursor observation system, precise controlled source system, engineering acceleration measuring system, high-precision GPS receiver (precision of 1mm + 1ppm), INSAR image receiving and processing system, absolute gravimeter (precision < 1 microgal), satellite gravimeter, Doppler radar with coherence technology or dual-polarization technology, hazemeter, meteorological sensor (temperature, pressure, humidity, wind, precipitation, cloud, visibility, radiation, frozen soil and snow depth), protection system against lightning strike, multi-level dust sampler, 3-D ultrasonic anemoscope, high-precision intelligent electronic tacheometer, three-dimension laser scanner, high-performance diamond drill for boring test, laser ranger without cooperation target, wind profiler (with RASS), GPS electronic sonde system, CO2/H2O flux observation system, boundary-layer Doppler lidar, particle spectrometer for particulate substance (3nm-20µm), high-performance data collector and underwater glider
12. Manufacturing of new-tech inspection or testing instruments for environmental protection: air quality inspection instrument, water quality inspection instrument, flue gas online inspection instruments, emergency apparatus, new-type spectroscopy analysis system, self-align apparatus, composite-type apparatus, low-drift apparatus, network telemetering apparatus and remote controlling apparatus and system, etc.
13. Manufacturing of air pollution prevention and control facilities: high temperature resistant and erosion resistant filtering materials, complete sets of wet desulfurizing equipment in coal-fired power plants, low-NOX combustion apparatus, catalyst and complete sets of equipment for fuel gas denitrogenation,
industrial organic exhaust purification equipment, diesel truck exhaust purification equipment

14. Manufacturing of water pollution prevention and control facilities: horizontal spiral centrifugal dehydrator, film and film materials, ozone generator of 10kg/h or above, chlorine dioxide generator of 10kg/h or above, ultraviolet disinfecting device and small-scale sanitary sewage treatment equipment used for rural areas

15. Manufacturing of solid waste treatment and disposal equipment: anti-seepage geomembrane in garbage landfiller, equipment for treating hazardous waste, equipment for power generation with biogas in garbage landfiller, and equipment for comprehensive utilization of wastes from scale breeding of poultry and livestock


17. Manufacturing of apparatus and equipment for collecting, processing and transmitting hydrological data as well as giving early warnings on flood control

18. Manufacturing of oceanic exploration monitoring instrument and equipment: middle and deep sea underwater (video) camera, multi-wave packet detector, middle and superficial stratum profiler, temperature-salinity-depth detector used in a moving vessel, fluxgate compass, hydraulic wireline winch, underwater air-tight electronic connector, energy recovery device (efficiency >90%) for reverse osmosis sea water desalination, high-pressure pumps (efficiency >90%) for reverse osmosis sea water desalination, film (ratio of desalinization > 99.7%) for reverse osmosis sea water desalination, low-temperature and multi-effect sea water desalination device by distillation with a daily output of 20,000 tons, marine ecosystem monitoring floaters, profile detecting floater, disposable conductivity, temperature and depth sonde (XCTD), on-site water quality measuring instrument, chemical sensor for intelligent ocean water quality monitoring (working nonstop for three to six months), geomagnetic electrokinetograph, acoustic Doppler current profiler (self-contained, direct-reading and ship use), conductivity, temperature and depth profiler, acoustic responding releaser and oceanic deep-sea tide measuring system (laid on sea bottom)
(XXIII) Other Manufacturing Industries
1. Development and utilization of products using clean coal technique, and manufacturing of related equipment (coal gasification, liquefaction, coal water mixture and industrial coal)
2. Coal washing and selection, and comprehensive utilization of fly ash (including desulfurized gypsum) and coal slack
3. Manufacturing of pure biodegradation materials

IV. Production & Supply of Electricity, Gas and Water
1. Construction and operation power stations using integrated gasification combined cycle (IGCC), 300,000-kilowatt or above circulating fluidized bed, 100,000-kilowatt or above pressurized fluidized bed combustor and other clean combustion technologies
2. Construction and operation of back-pressure thermoelectricity cogeneration power stations
3. Construction and operation of hydropower stations with the main purpose of power generating
4. Construction and operation of nuclear power stations (the Chinese party shall have a controlling interest)
5. Construction and operation of new energy power stations (including solar energy, wind energy, magnetic energy, geothermal energy, tidal energy, wave energy and biological mass energy, etc.)
6. Industrialization of sea water utilization (direct utilization and desalination of sea water) and treatment and recycle of industrial waster water
7. Construction and operation of urban water supply plants

V. Transportation, Warehouse Management and Postal Services
1. Construction and operation of main lines of railways (the Chinese party shall have a controlling interest)
2. Construction and operation of branch line railways, local railways, and related bridges, tunnels, ferries and station facilities (limited to equity joint ventures and cooperative joint ventures)
3. Comprehensive maintenance of infrastructures of high-speed railways, railway lines specially for passenger traffic, and intercity railways (the Chinese party shall have a controlling interest)
4. Construction and operation of highways, independent bridges and tunnels
5. Highway freight companies
6. Construction and operation of public dock facilities of ports
7. Construction and management of civil airports (the Chinese part shall have a controlling interest)
8. Air freight companies (the Chinese party shall have a controlling interest)
9. General aviation companies for agriculture, forestry and fishery (limited to equity joint ventures and cooperative joint ventures)
10. Fixed-term or non-fixed term international marine transport (the Chinese party shall have a controlling interest)
11. International container multi-modal transportation
12. Construction and management of oil and gas delivery pipes, as well as oil depots
13. Construction and management of coal pipelines transportation facilities
14. Construction and management of storage facilities related to transportation business

VI. Wholesale and Retail Business
1. Delivery of general commodities
2. Modern logistics

VII. Leasing and Commercial Services
1. Accounting and auditing (limited to equity joint ventures and cooperative joint ventures)
2. International economy, s&t and environmental protection information consultancy services
3. Contract information technology and operation flow services such as system application management and maintenance, information technology support management, bank back-office services, financial settlement, human resource service, software development, calling center and date processing

VIII. Scientific Research, Technical Services and Geological Exploration
1. Biological engineering and biomedical engineering technology, and biomass energy development technology
2. Isotope, radiation and laser technology
3. Ocean and ocean energy development technology, comprehensive utilization technology of marine chemical resources, development and deep-processing technology of the related products, marine medicine and biochemical product development technology
4. Ocean monitoring technology (over tide wave, weather and environment), submarine detection and oceanic resource exploration assessment technology
5. Technology for comprehensively utilizing the thick sea water leftover from sea water desalination to produce salt and extract and deep-process potassium, bromine, magnesium and lithium, and technology for using other high added-value sea water chemical resources
6. Energy-saving development technology
7. Development and application of technology for recycling and comprehensive utilization of resources and for recycling the effluents discharged from enterprise production
8. Technology for treating and monitoring environmental pollution
9. New technology for saving energy and reducing depreciation in producing chemical fibre and for the disposal of waste gas, water and solids
10. Technology for desertification prevention and desert treatment
11. Integrated management technology for grassland-livestock balance
12. Applied technology of civil satellites
13. Research and development centers
14. High and new tech and new product development centers, and enterprise incubation centers

IX. Water Conservancy, Environment and Public Utility Management
1. Construction and operation of comprehensive hydro projects (the Chinese party shall have a controlling interest)
2. Construction and operation of urban closed roads
3. Construction and operation of urban subways and light rails (the Chinese party shall have a controlling interest)
4. Construction and operation of sewage and refuse treatment plants, hazardous waste treatment and disposal plants (incineration plants, landfills) and environment pollution treatment facilities

X. Education
1. Higher education institution (limited to equity joint ventures and cooperative joint ventures)

XI. Health, Social Security and Community Welfare
1. Agencies providing services for the old, the disabled and children

XII. Culture, Sports and Entertainment
1. Operation of performance places (the Chinese party shall have a controlling interest)
2. Operation of sports grounds, body-building, contest performance, sports training and intermediate services